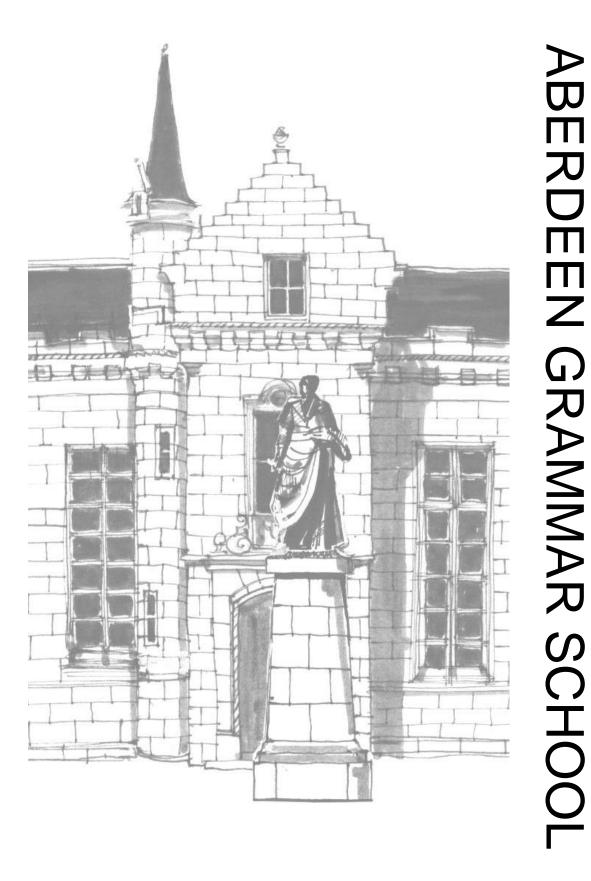
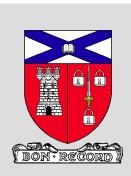


ADVANCED HIGHER

SENIOR PHASE COURSES:







ABERDEEN GRAMMAR SCHOOL SKENE STREET ABERDEEN AB10 1HT Telephone No. 642299 Fax No. 627413 Email Address Aberdeengrammarschool@aberdeencity.gov.uk Headteacher Ms Alison Murison MA Hons



Dear Parents and Students

The enclosed booklet is one of a set of three designed to support you in the course choice process. There are booklets for:

- National 4/5
- Higher
- Advanced Higher

Please make use of this resource as well as advice from subject teachers, your Principal Teacher Pupil Support (PTPS) and Mrs Evans (Careers Advisor). It is important to make your decision based on all the information available to you, including the level you are working at within each subject. This should mean that you make an informed choice and select courses where you will perform and attain very well.

I know you will work hard and make the most of every year within the senior phase of your education. I wish you much success.

Yours sincerely

Murison

Ms Murison Head Teacher

END OF FIFTH YEAR - WHAT NEXT?

If you are already in fifth year in Aberdeen Grammar School you have several options:

- 1. Leave school and obtain a job.
- 2. Leave school and attend a Further Education College.
- 3. Leave school and enter Higher Education in a University or College, if you have the necessary qualifications.
- 4. Leave school for a 'Gap Year'.
- 5. Return to Aberdeen Grammar School for a sixth year.

TYPES OF COURSES AVAILABLE IN ABERDEEN GRAMMAR SCHOOL

All the courses on offer in the school are assessed and certificated by the Scottish Qualifications Authority (SQA). This body also certificates most vocational education and training throughout Scotland.

NATIONAL QUALIFICATIONS

Aberdeen Grammar School, in common with all other secondary schools, will offer courses at Higher, National 4 and National 5 and Advanced Higher levels. All of these courses are National Qualifications certificated by the SQA.

National Qualification courses at National 5, Higher and Advanced Higher are graded as follows based upon performance in the final assessment in a subject. These grading's apply to Advanced Higher, Higher and National 5 level courses.

Grade A Grade B Grade C Grade D No Award
Courses at National 3 and National 4 will NOT be graded but assessed overall as a pass or fail.

HIGHER LEVEL COURSES

For many years Higher courses have been the traditional course and examination for the academically able pupil in post compulsory education.

In session 2016-2017 Aberdeen Grammar School will offer a wide range of Higher level courses.

Higher courses are assessed and certificated by the Scottish Qualifications Authority. Highers are the essential qualification for University entrance in Scotland and are accepted by Universities in other parts of the United Kingdom. Each University will set the entry requirement for each University course. The entry level will state the number of Highers and the grades required.

Entry Requirements for Current S4/S5 who have sat Nationals

Pupils who have studied National courses are encouraged to look at specific entry requirements that are detailed in each course descriptor. A general entry requirement would be either and A or B pass at National 5 level.

Some S6 pupils study Higher courses. In some cases these may be courses they studied at Nationals in S4 and in others they may start the subject without any previous study.

In exceptional circumstances a 4th year pupil may study a Higher Course.

ADVANCED HIGHER COURSES

The Advanced Higher courses are offered by the SQA for those students with a good Higher grade (A or B) in a subject and want to study it in greater depth. It is generally not an entrance qualification for University, but it can be influential for some universities and faculties. Some universities now also give exemptions to aspects of first year university courses where a student has passed an Advanced Higher. Most English universities prefer students from the Scottish system to have studied for AH as this is comparable to English 'A' levels. Advanced Higher courses place a considerable emphasis on individual initiative and study with more limited periods of teacher tuition. It is a good introduction to the kind of study experienced at University. Pupils who have obtained a Higher pass in S5 should seriously consider Advanced Higher courses for S6.

Four grades of award are used from A to D.

A separate booklet with details of Advanced Higher courses available in Aberdeen Grammar School has been printed.

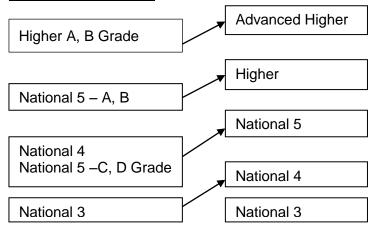
Art & Design	French	Mathematics
Biology	Geography	Mathematics of Mechanics
Business Management	German	Modern Studies
Chemistry	Graphic Communication	Music
Drama	History	Physics
English	Mandarin	Spanish

A separate booklet with details of the National 4 and National 5 courses available in the school has been printed.

COURSES OF EQUIVALENT LEVELS OF DIFFICULTY

The diagram below shows how the National, Higher and Advanced Higher courses relate to each other.

National Qualifications



CONSORTIUM ARRANGEMENTS WITH NEIGHBOURING SCHOOLS

Aberdeen Grammar school has entered an agreement with Hazlehead, Northfield, Harlaw and Cults Academies to allow us to extend the choice to our S5 and S6 pupils.

The Consortia arrangement will occur on a Mon/Wed afternoon (column B) and on a Tues/Thurs afternoon (column D) to allow pupils to travel to their elected school.

COURSES DELIVERED BY NESCOL

Aberdeen City Council has been entered into a partnership agreement with North East Scotland College (NESCOL) which will result in various Skills for Work being offered to pupils at National 4/5.

These courses will be delivered at NESCOL on 2 afternoons per week. A separate booklet describes these.

ASSESSMENT IN NATIONAL QUALIFICATIONS COURSES

The majority of subject courses have been developed to enable them to be taught in 3 x 40 hour units and on completion of each unit to be assessed internally by a formal examination. The papers for these unit tests have been rigorously produced by the Scottish Qualifications Authority. Marking standards will be checked by internal verification procedures and by external moderation on request.

Students must pass all 3 units internally <u>and</u> the final overall course examination, which is set externally in May/June to achieve a course award in a subject.

Should a student fail an internal unit assessment they will be allowed one other chance to gain the necessary pass. On the slender chance that they also fail the second unit test they can still sit the external exam but will not gain a course award.

Due to the nature of some subjects the pattern of unit and course assessment will reflect the skills and competencies developed in the course. Marks are given for such things as overall performance, production of an artifact, oral ability, project work and the writing of extended essays.

HOW MANY SUBJECT COURSES WILL I STUDY IN S6?

All S6 students must study 4 'courses'. An Advanced Higher counts as 1¹/₃ of a course.

Students who expect to pass 4 or 5 Highers in S5 should seriously consider studying several Advanced Higher courses as these provide the challenge required by able students. Advanced Highers also help develop the independence of study required in Higher Education.

GUIDANCE ON MAKING SUBJECT CHOICES

CLEAR IDEA OF FUTURE CAREER

If you have a clear idea of your future career you should check which subjects you must study. Certain careers require you to have studied particular subjects in school or in college and university courses. It is vital you use the careers library and Careers Adviser to check before you choose subjects for S5 and S6.

If you have achieved a good grade in a subject in S5 and you want to study that subject at college or university you are strongly advised to study the Advanced Higher course in S6.

UNCERTAIN OF POST SCHOOL DESTINATION

It is common for pupils at the end of S5 to have no definite career or college/university course in mind for when they leave school. If you are in this position you are advised to keep open as many options as possible by choosing subjects to give you a broad curriculum. In choosing subjects consider two points:

- 1 Do you like a subject and do you want to study it for another year?
- 2 Are you good at a subject? You are not advised to choose a subject you performed poorly in at Nationals, unless you need it for entry to a career or Higher Education course

RECOMMENDED ENTRY REQUIREMENTS

Carefully study the recommended entry requirements given for each course. These are often expressed as National/Higher results in a subject. It would be unwise to study a course for which you don't have the recommended entry qualifications, as you are unlikely to be successful in passing the examinations at the end of the course. If you are uncertain whether you will be permitted to study a course, discuss the matter with the subject teacher concerned.

PROBLEMS CHOOSING SUBJECTS

If you experience problems choosing courses your Principal Teacher of Pupil Support (PTPS) will be able to help you. He/she will assist you in deciding the level of course you should study – i.e. Advanced Higher, Higher or National 4/5 course. Every student must discuss their subject choice with his/her PTPS.

GENERAL ADVICE

- Keep as many career options open as possible. You may still change your mind several times before leaving school and university/college.
- Don't choose a subject just because your friends have taken it. You may need a subject for your chosen career and this will be more important in the long run than being in the same class as your friends.
- If you have a particular career, Further or Higher Education course in mind you must check the entry qualifications before choosing subjects. The Careers Library, Careers Adviser and Principal Teacher Pupil Support will help you investigate entry requirements.
- Don't be put off a subject just because other people are better at it than you. If you are genuinely interested in a subject, or need the subject for your career, then you ought to consider choosing it regardless of how well others do in that subject.

- Unfortunately, in the past, some pupils have limited their choice as they have thought some subjects are only for boys and others for girls. Don't limit your choice by this type of thinking.
- As university and college entry requirements have become more complicated, it is essential that you check with your chosen university the entry requirements, for the course you are interested in. University applicants may have to satisfy general entry requirements but also faculty or departmental requirements. These are too numerous to list but the information is usually available in school.

Students aiming for university should check the "Going Rates" on the number and level of Higher Grades required for courses. These can be found in the Scottish Universities Entrance Guide held in the school library or the website <u>www.ucas.com</u>, click on core search.

"FREE" TIME FOR SIXTH YEAR STUDENTS

Some sixth year students have times when they are not in timetabled classes. Some, such as those studying many Higher courses, will have very little or no "free" time. Others who may be studying three Advanced Higher courses will have a little more.

All S6 students must be in school until 9.50am each morning. Those with no timetabled class period 1 will be allocated supervised study.

S6 students are allowed to leave the school building after 9:50am if they have no timetabled classes. However, they must "sign-out" at the school reception and "sign-in" on returning to the school. The signing in/out procedures is essential for emergency fire evacuation purposes.

Non-class time may be used for study at home or for involvement in a range of other activities available in the school. Be certain to use your time wisely and not waste all of it socializing.

EDUCATION MAINTENANCE ALLOWANCES

Pupils in S5 and S6 who stay on in school after the official school leaving date may apply to the Education Authority for an Education Maintenance Allowance, which if granted, is a monetary award paid directly into the bank account of each pupil. EMA payments are £30 per week and are dependent on annual household income. Attendance, punctuality, and behaviour of each pupil must be of a very high standard for payment to be authorised each week. Information about this award and how to apply will be issued to pupils early in the new academic year 2016-2017.

CONTENTS – ADVANCED HIGHER COURSES

Art, Design & Technology	Art & Design (AGS & City Campus – Harlaw)	8
	Graphic Communication (City Campus – Harlaw)	9
Business & ICT	Business Management (City Campus – Harlaw)	10
English	English (City Campus – AGS)	11
Humanities	History (City Campus – AGS)	12
	Geography (City Campus – Harlaw)	13
	Modern Studies (City Campus – AGS)	14
Mathematics	Mathematics (AGS & City Campus –Harlaw)	15
	Mathematics of Mechanics (City Campus – Harlaw)	16
Modern Languages	French/Spanish	17
	German (City Campus- Hazlehead)	18
	Mandarin (City Campus – Old Machar)	19
Performing Arts	Drama (City Campus – AGS)	20
	Music	21
Science	Biology (AGS & City Campus – Harlaw)	22
	Chemistry (AGS & City Campus – Harlaw)	23
	Physics (AGS & City Campus – AGS & Harlaw)	24
Further Education & Employment Information	Careers Information University & College Applications	25

ADVANCED HIGHER ART & DESIGN

<u>Purpose</u>

This course provides you with opportunities to select and develop in depth, through practical activity, an area of study reflecting your interests and strengths; to promote knowledge and understanding, skills of media handling and communication of your ideas and feelings through production of high quality artwork. There are maximum opportunities for portfolio production. The department offers two course options which allows for specialisation in either EXPRESSIVE or DESIGN. The Course comprises: one compulsory 80 hour Enquiry study, one 40 hour Minor study.

Recommended Entry Level

A pass at A/B level in Higher Art & Design, Higher English in addition to commitment and drive. This is a demanding course which requires high practical skills, creativity and the ability to work independently through self-motivation.

Course Description/Details

Two choices of course are available:

- 1. Art & Design (Design) a) Design Enquiry b)Design Studies
- 2. Art & Design (Expressive) a) Expressive Enquiry b) Expressive Studies

Skills include developing sophisticated levels of technical and creative abilities in the use of materials, techniques and technology and confidence in handling media, materials and processes: the resolution of ideas, feelings, thoughts and interpretation into finished artwork of a high quality. Communicating written personal thoughts, feelings, and ideas, whilst developing progressive lines of enquiry requires a good pass at English Higher.

Assessment Methods

Units will be assessed on a pass/fail basis within centres. Internal assessment deadline dates will be set on a regular timeous basis throughout the year. The SQA will provide rigorous external quality assurance, including external verification, to ensure assessment judgements are consistent and meet national standards. This approach will adhere to assessment of both the practical process and products of learning, and include the evidence of supporting contextual research and evaluation. Courses require further assessment for Added Value outcome(s) related to the area of study set within Enquiry which is carried out externally by the SQA.

Career Progression

- A range of art or design related Higher National Diplomas (HNDs)
- Degrees in art, design and related disciplines
- Career in the creative field

Faculty Principal Teacher

Miss E Forrest

ADVANCED HIGHER GRAPHIC COMMUNICATION

<u>Purpose</u>

The purpose of the Course is to develop learners' skills in communicating using graphic media, and in interpreting, understanding and critically evaluating graphic media created by others. These skills are essential for people of all ages living and working in a modern society. The way in which visual information is communicated has a direct influence and effect on our decisions, actions and emotions as we go about our everyday business. We rely heavily on the accuracy of information conveyed by graphic communications, from complex engineering and technical information, simple display and informational graphics, to animations and moving graphic media.

Recommended Entry Level

- Pupils must have studied Higher Graphic Communication and should have achieved a grade A or B.
- Any other entry route should be discussed with the Faculty Principal Teacher.

Course Description/Details

The Course consists of two mandatory Units and a Course assessment. This will consist of a question paper and a project. Pupils who complete the following Units will be able to:

Technical Graphics Unit (12 SCQF credit points)

- 1. Describe and explain a range of graphic design principles, techniques, technologies and the audience requirements for technical graphics.
- 2. Critically evaluate the use of graphic techniques in the production of technical graphics in satisfying intended audiences.
- 3. Plan and produce complex technical graphics to support a specific technical activity and its various audiences.

Commercial and Visual Media Graphics Unit (12 SCQF credit points)

- 4. Describe and explain a range of graphic design principles, techniques, technologies and the audience requirements for commercial and visual media graphics.
- 5. Critically evaluate the use of graphic techniques in the production of commercial and/or visual media graphics in satisfying intended audience requirements.
- 6. Plan and produce complex commercial and/or visual media graphics to support commercial and/or visual media activity and their intended audiences.

Assessment Methods

Course components (8 SCQF credit points):

- 1. Component 1 is a class assignment or project which is externally assessed. (60%) This assignment allows pupils to apply and extend the knowledge and skills gained through the unit work.
- 2. Component 2 is an End of year written exam which is externally assessed. (40%)

Career Progression

Learners who have achieved this Advanced Higher Course or its units may progress to further study, employment and/or training. Opportunities for progression include:

- A range of graphic-related Higher National Diplomas (HNDs).
- Degrees in graphic design and related disciplines.
- Careers in graphic design fields.

Faculty Principal Teacher

City Campus – taught at Harlow

ADVANCED HIGHER BUSINESS MANAGEMENT

Purpose

The purpose of this course is to further develop knowledge and understanding from Higher Level and put into practice by completing a business report.

Recommended Entry Level

Higher Business Management at A or B

Course Description/Details

The aim of the course is to provide pupils with an opportunity to extend and enhance understanding developed at previous levels of study. Pupils are expected to assimilate new content but there is considerable emphasis on Ousing ideas to which candidates have already been exposed, particularly in terms of problem solving and decision-making within organisations. Pupils are expected to apply these ideas in an extended context and, in the respect, the Course broadens and deepens the issues raised at Higher level, particularly with respect to international influences and the principles and practices of management. It will enable pupils to extend their problem solving skills in a way that will help them to assess their personal effectiveness as potential members of the business community and develop further their ability to communicate by means of written and spoken language.

The course content is organised in 3 units:

- The Internal Business Environment
- The External Business Environment
- Evaluating Business Information

Assessment Methods

The course consists of:

- 1. THREE mandatory units with unit assessments
- 2. FINAL EXAM:
 - Component 1 Question Paper (worth 80 marks)
 - Component 2 Project (worth 40 marks)

Career Progression

By developing many transferable skills this course offers very good preparation for higher education. Successful completion of this course opens up a wide range of progression routes including HND or degree in Business, Marketing, Economics, Finance, Personnel and careers in a wide range of management functions within the private, public or third sectors.

Faculty Principal Teacher

City Campus – taught at Harlow Academy

ADVANCED HIGHER ENGLISH

<u>Purpose</u>

The Advanced Higher English Course provides learners with the opportunity to apply critical, analytical and evaluative skills to a wide range of complex and sophisticated texts from different genres. Learners develop sophisticated writing skills, responding to the way structure, form and language shape the overall meaning of texts.

Recommended Entry Level

Higher English at grade A or B.

Course Description/Details

The Advanced Higher English course is comprised of two units:

• English: Analysis and Evaluation

Learners will provide evidence of their ability to critically respond to previously studied complex and sophisticated texts, and of their ability to carry out an independent study into an aspect or aspects of literature.

• English: Creation and Production

Learners will provide evidence of their writing skills through the production of writing which demonstrates a range of skills necessary for the deployment of language to create effect.

Assessment Methods

Internal assessments will be carried out under controlled conditions and assessed on a pass/ fail basis. If any internal unit is failed, pupils will be given an opportunity to revise their work, following feedback from their teacher.

The course will be graded A-D by the external assessment of:

- A two part portfolio total 60% Part A: Dissertation – 30% Part B: Writing – 30% (comprising two pieces of original writing)
- A two part question paper total 40% Part A: Literary study – 20% Part B: Textual Analysis – 20%

Career Progression

The skills developed in Advanced Higher English will enhance pupils' literacy and critical thinking skills and will benefit pupils in their other courses, in further education and in the workplace.

Faculty Principal Teacher

Mrs Williams

<u>Purpose</u>

The aims of the Advanced Higher History course are to acquire depth in the knowledge and understanding of historical themes and to develop the skills of analysing issues, developments and events, drawing conclusions and evaluating sources. These aims will be achieved through the study of a chosen context. In addition students will also be required to undertake the planning, research, preparation and presentation of a dissertation on a defined historical issue relating to their field of study.

Recommended Entry Level

• While entry is at the discretion of the department, students would normally be expected to have attained a Higher pass at A or Upper B.

Course Description/Details

'The House Divided': USA 1850 - 65

A study of American society and the tensions within it, the causes and nature of conflict, the political, social and economic outcomes of that conflict, focusing on the themes of conflict, rights, identity and authority.

American society on the eve of war, including: political, economic and social questions arising out of the newly acquired territories; centralised Federation in conflict with States' rights; conflict between the Southern slave economy and Northern industrialism.

The coming of war, including: the civil rights questions; the failure of compromise; the outbreak of war.

The Civil War, including: military events and developments from Union and Confederate viewpoints; the role of foreign powers in the conflict; the experience of blacks during the war.

The effects of war, including: the political consequences; social and economic conditions in North and South.

Assessment Methods

To gain an overall award for the course, students must achieve a pass in each of the two internal assessments, as well as the external exam.

External exam:

The dissertation: The dissertation will allow learners to apply research, analysis and evaluation skills as they investigate a complex historical issue. 50 marks.

The Question Paper (3 hours): The question paper is marked out of 90. It will be divided into two sections:

- Historical Issues will have 50 marks. This Section will be made up of extended response questions requiring the learner to draw on the knowledge and understanding and skills acquired during the Course.
- Historical Sources will have 40 marks. This Section will be made up of extended response questions requiring the learner to draw on the knowledge and understanding and skills acquired during the course and apply these to unseen historical sources.

Throughout the year, students will be prepared for the question paper through regular practice with source-handling and essay questions, both in class and for homework. For the dissertation, students will also have access to library facilities at the University of Aberdeen.

Career Progression

This course is particularly suitable for students who wish to progress to degree courses and careers in humanities, social sciences, law and languages. Potential career pathways are diverse and include education, law, the media, management and public administration. Advanced Higher History is an excellent preparation for study at university in any subject, and is an excellent preparation for a wide range of careers.

Faculty Principal Teacher

Ms J Irvine

ADVANCED HIGHER GEOGRAPHY

<u>Purpose</u>

The Advanced Higher qualification in Geography gives learners an in-depth understanding of complex ideas about how the world works. It also gives them the chance to carry out their own research on geographical issues of interest to themselves, with an emphasis on fieldwork. Learners will be able to use sophisticated geographical methods to gather information and will be able to use statistics to analyse this data and identify relationships within it. They will be able to describe and summarise different viewpoints on a range of issues from a local to global scale and evaluate them critically.

Recommended Entry Level

Higher Geography at Grade A or B.

Assessment Methods

There will 2 elements that are externally assessed: Exam 50/150 and Folio (Geographical Study and Geographical Essay) 100/150.

There will be 2 internal unit assessments: Geographical Skills and Geographical Issues.

Career Progression

The skills developed in Advanced Higher Geography provide an excellent preparation for the demands made on students when they progress to further education.

Faculty Principal Teacher

Ms J Irvine (City Campus Harlaw)

ADVANCED HIGHER MODERN STUDIES

<u>Purpose</u>

The course is concerned with developing the pupil's knowledge and understanding, evaluative and investigative skills in relation to Modern Studies topics. Pupils taking the course will develop an understanding of the importance of sound evidence gathered in a disciplined way as a basis of their work. They will also assess critically a variety of political and social research methods and will carry out an independent research project to develop their investigative skills.

Recommended Entry Level

• Pupils would be expected to have attained a Higher or component units at Higher level in Modern Studies or another Social Subject

Course Description/Details

The overall theme of the course is 'Law and Order and Research Methods' and comprises two units, one of 80 hours and one of 40 hours as outlined below:

Unit 1: Social Issues: Law and Order and Research Methods

Context A: Understanding criminal behaviour

This includes; The nature and extent of criminal behaviour, evaluation of theories of criminal behaviour and the social and economic effects of criminal behaviour.

Context B: Responses by society to crime

This includes; Theories and explanations of responses to crime, current responses to crime and evaluation of responses to crime.

Unit 2 – Researching Contemporary Issues

This unit will allow the pupil to carry out independent research on the content of a unit studied at Higher or Advanced Higher in Modern Studies. The pupil will develop the investigative skills of planning, researching, analysing and presenting through the production of a **4500 word dissertation** for which part of the research must involve a primary method.

Assessment Methods

To gain a full award for the course, pupils must achieve **all the component units of the course** (internally assessed) as well as **the external assessment**. The external assessment comprises of an externally set and assessed question paper and the dissertation. In addition, pupils must pass internal assessments throughout the course relating to the content and research methods related to the main study theme (Unit 1) and practical research methods (Unit 2).

Career Progression

The course provides an excellent basis for a career in teaching, the police, civil service, the law and many other professional careers.

Faculty Principal Teacher

Ms J Irvine (City Campus AGS)

ADVANCED HIGHER MATHEMATICS

<u>Purpose</u>

Mathematics is important in everyday life, allowing us to make sense of the world around us and to manage our lives. Using mathematics enables us to model real-life situations and make connections and informed predictions. It equips us with the skills we need to interpret and analyse information, simplify and solve problems, assess risk and make informed decisions.

Recommended Entry Level

Students would be expected to have achieved Higher Mathematics at Grade A or B.

Course Description/Details

The course is made up of 3 units and a course assessment.

Each unit will develop the knowledge and skills within the content detailed below.

Unit Title	Methods in Algebra and Calculus	Applications of Algebra and Calculus	Geometry, Proof and Systems of Equations
Building on Prior Knowledge	 Differential Calculus Integral Calculus 	Sequences and SeriesProperties of FunctionsApplications of Calculus	VectorsThe Geometry of Complex Numbers
Introducing	 Partial Fractions Differential Equations 	 The Binomial Theorem The Algebra of Complex Numbers Sigma Notation and mathematical proof 	 Gaussian Elimination Matrices Processes of rigorous Proof

In addition the course will develop learners' ability to

- use mathematical reasoning skills to think logically, provide justification and solve problems
- to select and apply complex operational skills
- use reasoning skills to interpret information and to use complex mathematical models
- to effectively communicate solutions in a variety of contexts
- to explain and justify concepts through the idea of rigorous proof
- think creatively

To support their learning candidates will be expected to complete day to day work and homework exercises which will average around 2 – 3 hours per week.

Assessment Methods

Unit Assessments All 3 units will be assessed internally.

Course Assessment / External Exam

This is made up of one exam paper consisting of short and extended response questions which **lasts 3 hours** and is worth **100 marks**. This paper will focus on breadth, challenge and application of knowledge and skills across the 3 units in unfamiliar contexts and / or integrated ways. To gain an overall award the learner must pass all three Units as well as the course assessment.

The course assessment will determine the grade to be awarded.

Career Progression

Advanced Higher Maths is good preparation for learners progressing into higher education engineering and scientific courses.

Faculty Principal Teacher

Mrs J Smith

ADVANCED HIGHER MATHEMATICS OF MECHANICS

<u>Purpose</u>

Mathematics is important in everyday life, allowing us to make sense of the world around us and to manage our lives. Mechanics uses mathematics to enable us to model real-life situations and to equip us with the skills we need to interpret and understand how things work, simplify and solve problems, identify limitations and draw conclusions.

Recommended Entry Level

Students would be expected to have achieved Higher Mathematics at Grade A or B and Higher Physics.

Course Description/Details

Mechanics is the branch of mathematics concerned with the study of forces that act on bodies and any resultant motion that they experience. It will offer learners an enhanced awareness of the range and power of mathematics and the importance of mathematical applications to society in general.

The course is made up of 3 units and a course assessment.

Unit Title	Linear and	Force, Energy and	Mathematical Techniques
	Parabolic Motion	Periodic Motion	for Mechanics
Topics	 Rectilinear Motion Vectors and Motion Projectiles Dynamics and Equilibrium 	Force and EnergyEquations of Motion	 Binomial Theorem Partial Fractions Further Differentiation Further Integration

The Course will enable learners to:

- use and extend mathematical skills needed to solve problems in mechanics
- consider the state of equilibrium or the movement of a body and interpret the underlying factors using known mathematical methods
- understand, interpret and apply the effects of both constant and variable forces on a body
- create mathematical models to simplify and solve problems
- analyse results in context, and interpret the solution in terms of the real world

develop skills in effectively communicating conclusions reached on the basis of physical factors and calculation

Assessment Methods

Unit Assessments All 3 units will be assessed internally.

Course Assessment / External Exam

This is made up of one exam paper consisting of short and extended response questions which **lasts 3 hours** and is worth **100 marks**. This paper will focus on breadth, challenge and application of knowledge and skills across the 3 units in contexts appropriate to mechanics. To gain an overall award the learner must pass all three Units as well as the course assessment.

The course assessment will determine the grade to be awarded.

Career Progression

Mechanics is widely used in developments in physics and technology. Learners will find applications in many careers in science, the technologies and engineering. These careers can involve the improvement, redesign and invention of equipment for uses such as in agriculture, medicine, civil engineering and space exploration.

Faculty Principal Teacher

City Campus - taught at Harlow

ADVANCED HIGHER FRENCH/SPANISH

<u>Purpose</u>

The course provides learners with the opportunity to acquire and develop the skills of listening, talking, reading and writing in modern language and the application of these skills. It also involves thinking skills with analysis, criticism and evaluation of texts.

Recommended Entry Level

Higher course award at Grade A or B

Course Structure:

Three mandatory units: Understanding and Using Language

- <u>Understanding Language</u> provides learners with the opportunity to develop and extend the skills of reading and listening in a wide range of contexts and to develop knowledge, understanding and analysis of more complex and sophisticated language structures in the contexts of society, learning, employability and culture.
- <u>Using Language</u> provides the learner with the opportunity to develop and extend talking and writing skills and to develop their understanding and use of more complex language in the contexts of society, learning, employability and culture.

Specialist Study

The purpose of this unit is to provide learners with the opportunity to develop analytical, critical and evaluative skills through the study of complex literary texts or media texts in the modern language.

Assessment Methods

To gain the award of the course, the learner must pass all **Unit Assessments** as well as the Course Assessment. **Unit Assessments**:

- <u>Understanding Language and Using Language</u>
 Learners will be required to provide evidence of their **reading, listening writing and talking** skills understanding and using complex and sophisticated language in one of the following themes: society, learning, employability, culture.
- <u>Specialist Study</u>

Learners will be required to provide evidence of their planning, research and analysis skills based on literature or media within the context of the modern language.

Course Assessment – External Exam:

Component 1	Paper 1	Reading	(30 marks)
		Translation	(20 marks)
	Paper 2	Listening	(30 marks)
		Discursive Writing	(40 marks)
Component 2	Performance	Talk with Visiting SQA examiner	(50 marks)
Component 3	Specialist	Study, in English, 1200-1500 words on literacy and/or media	(30 marks)
	Study	text studied	
Career Progressio	1		
Saleer Filgression	<u>1</u>		

Further study of modern languages and related areas/employment or training.

Faculty Principal Teacher

Mrs J Tease

ADVANCED HIGHER GERMAN

Purpose

The course provides learners with the opportunity to acquire and develop the skills of listening, talking, reading and writing in German and the application of these skills. It also involves thinking skills with analysis, criticism and evaluation of texts.

Recommended Entry Level

Higher German (preferably at A)

Course Description/Details

The Advanced Higher German course consists of 2 units - a Language Unit and the Extended Reading and Viewing Unit

The Language Unit develops and practises the skills of Reading, Listening, Speaking and Writing and the course covers three themes - Personal, Social and Cultural issues, Topical and Cultural issues and Environmental issues. These three themes are divided into the following topics

- Patterns of family life
- Media and the Arts
- European issues
- Issues relating to the countries where German is spoken
- Pollution / conservation

In the Extended Reading and Viewing Unit students have the chance to study a novel, a set of texts, a play or a film in depth as well as researching a background topic of their choice.

Assessment Methods

For the Language Unit - One assessment in Reading, Listening and Speaking

Two assessments in Writing (which count towards the folio)

For the E R & V Unit - One assessment of Writing (which counts towards the folio)

One assessment of Speaking

The final exam consists of a Speaking performance - done by a visiting examiner - a Reading and translation paper and a Listening and Discursive essay paper.

Career Progression

An Advanced Higher pass in a Modern Language is an extremely useful qualification, not only for careers directly involving languages, but it also enhances employability in the areas of travel and tourism, commerce, marketing etc. University graduates in other subject areas (e.g. law, the Sciences and I.T.) enjoy greater success in the job market with a Modern Language qualification at Higher and AH.

Faculty Principal Teacher

City Campus - taught at Hazlehead Academy

ADVANCED HIGHER MANDARIN

<u>Purpose</u>

The Advanced Higher Mandarin course consists of 3 units:

<u>Understanding Language</u> – within the contexts of Society, Learning, Employability and Culture students have the opportunity to develop and extend their reading and listening skills

Using Language - in the same four contexts students develop and extend their talking and writing skills

<u>Specialist study</u> – students develop and extend their planning, research and analytical skills to undertake an independent study based on literature or media.

Recommended Entry Level

Pupils would usually be expected to have attained a pass at Higher Mandarin at grade A or B or an equivalent level.

Assessment Methods

There will be one Unit assessment in each of the four skills (pass/fail)

The course assessment will comprise -

- A Reading and Translation paper worth 50 marks
- A Listening and Discursive writing paper worth 70 marks
- A speaking performance marked by a Visiting Examiner worth 50 marks (completed in February or March)
- A portfolio (the final product of the work done on a literary or media topic). This is worth 30 marks and is sent off to the SQA for assessment by them before the Easter break.

Faculty Principal Teacher

City Campus - taught at Old Machar Academy

ADVANCED HIGHER DRAMA

<u>Purpose</u>

The Advanced Higher Drama Course will provide a challenging and satisfying Course for candidates who wish to specialise in both the academic and practical aspects of the subject. It also provides opportunities to develop transferable skills for learning, life and work.

The course allows learners to explore both the practical and analytical aspects of the subject. It provides opportunities for learners to develop skills through practical aspects of theatre, the creative exploration of the art of theatre and its forms and practices.

Learners will investigate how theatre practice has been shaped by key practitioners. They will expand and develop their own skills within their chosen area of acting, directing or design.

The aims of the Course are to enable learners to:

- develop autonomy and independent thinking skills
- develop skills in performing within their chosen area of acting, directing or design
- develop individual creativity when applying skills in problem solving, analysis and evaluation
- analyse current theatrical performance
- · develop analytical skills in the interpretation of texts
- develop knowledge and understanding of 20th-century theatre practice and key practitioners
- develop knowledge and understanding of social and cultural influences on drama

Recommended Entry Level

While entry is at the discretion of the department, students of Advanced Higher Drama should have achieved an A/B pass at Higher Drama and English. In some instances, students who have other previous experience of drama may also have access to the Advanced Higher course.

Course Description/Details

This course consists of two core units as well as a practical examination and a written project. Although the unit titles are the same as Higher there is a focus on Theatre Practitioners and their impact on modern theatre. Students will be required to analyse the influences, theories and practice of these practitioners.

Drama Skills

In this Unit, learners will be required to provide evidence to demonstrate their knowledge and skills in devising, directing and performing through the exploration of a key practitioner. They will independently create a devised drama production, using their dramatic interpretation of complex texts. They will present it to an audience and evaluate their effectiveness as an actor or director.

Production Skills

In this Unit, learners will focus on a study of a key theatre practitioner, and explore in depth the influences on and the theory and practice of their chosen practitioner. They will explore and analyse key productions that reflect their acting or directing or design methodologies through both research and practical experimentation. They will also view and analyse a live theatrical event, considering performance concepts and effectiveness.

Assessment Methods

Component 1 — Practical Exam

The practical exam will have 60 marks (60% of the total mark). The practical exam has two sections.

- Section 1 will have 50 marks. (For performance in the chosen role of acting, directing or design)
- Section 2 will have 10 marks. (These marks are awarded for a report based on their chosen role and production)

Component 2 — Project

The project will have 40 marks (40% of the total mark).

• The candidate will select a topic from relevant and current performance theories and practice. The project will consist of a written report and may contain visual evidence.

Total 100 Marks

Faculty Principal Teacher

Mrs T Mackay

ADVANCED HIGHER MUSIC

Purpose

The purpose of the course is to provide a broad practical experience of performing and creating music and to develop knowledge and a greater understanding of music. Course activities allow learners to work independently or in collaboration with others, and can help learners to plan and organise, to make decisions and to take responsibility for their own learning.

The skills, knowledge and understanding that will be developed in the Advanced Higher Music Course are:

- performing musically and technically demanding music in solo and/or group programmes
- using problem solving, planning and evaluation skills when developing and refining performing skills
- experimenting with and using a variety of compositional techniques in creating compositions and/or improvisations and/or arrangements
- in-depth knowledge of a range of music concepts, musical literacy and music styles
- analysis of musical works
- analysis of composers' use of music concepts and factors influencing the development of their music
- preparing and performing a programme of music of an appropriate level
- planning, developing and producing a folio of original music
- demonstrating aural perception and discrimination

Recommended Entry Level

This course is restricted to students who have already passed Higher Grade Music, usually at grade A or B.

Course Description/Details

The course has an integral approach to learning and includes a mixture of practical learning, and related understanding to music. To achieve the course, all candidates will study three mandatory units which include; Understanding/Analysing music, Composing and Performing as well as the Added Value assessment.

<u>Music: Composing</u> Candidates at this level will have the opportunity to build competence in handling a wide range of compositional techniques which they will use to produce a folio of original work. This area of the course presents candidates with a unique opportunity to explore musical ideas, to solve problems and to make personal decisions about style, the selection and deployment of performance forces, and the use of compositional devices. When composing or creating their own original music, learners will be encouraged to investigate the different ways composers develop ideas and music, before beginning to explore and experiment and develop their own ideas and music. By engaging in this process they will both develop their creativity and express their individuality.

<u>Music: Understanding/Analysing Music</u> The course provides scope to listen to a variety of music and to develop discriminatory awareness of an increasing range of musical and stylistic concepts. In this, as in other units of the course, candidates have the opportunity to develop musical literacy, demonstrating their ability to relate music heard to notated scores. At Advanced Higher level candidates will have further scope to engage in independent learning, particularly with regards to researching the impact of external social and cultural influences on the development of music and music styles/forms.

<u>Music: Performing</u> As at previous levels candidates will have the opportunity to develop their performance skills in one of the following combinations:

- Two instruments, at Grade 5 standard (or above)
- One instrument and voice, at Grade 5 standard (or above)

Performances will be of longer duration than at previous levels and will include works which make increased technical and musical demands. Learners will, through regular practice and critical reflection and evaluation, develop their technical and musical performing skills.

Assessment Methods

Pupils are assessed throughout the year on all course units, including interim assessments to check on progress. The units are designed for pupils to build a folio of work during the year and each piece of work is assessed according to SQA assessment guidelines.

Career Progression

For many learners a key transition point will be to further or higher education, for example to HNCs, HNDs or degree programmes in music-related subjects. Higher/Advanced Higher music provide good preparation for learners progressing to further and higher education with a variety of different career opportunities available.

Faculty Principal Teacher

Mrs T Mackay

ADVANCED HIGHER BIOLOGY

<u>Purpose</u>

The Advanced Higher Biology Course is based on integrative ideas and unifying principles of modern biological science. It covers key aspects of life science at the molecular scale and extends to aspects of the biology of whole organisms that are among the major driving forces of evolution. In addition, the Advanced Higher Biology Course aims to develop a sound theoretical understanding and practical experience of experimental investigative work in biological science.

The Course provides candidates with the opportunity to develop a deeper understanding of the cell by studying the key roles of proteins within the cell. This understanding of cellular processes is then related to physiological function. At the whole-organism scale, the Course explores how sexual reproduction and parasitism are major drivers of evolution. This allows candidates to develop a deeper understanding of the mechanism of evolution, the biological consequences of sexual reproduction and the biological inter-relationships involved in parasitism. The Course provides a deeper understanding of laboratory and fieldwork techniques, and in carrying out a biological investigation the candidate has the opportunity to produce an extended piece of scientific work.

Practical investigative skills are particularly important at this level. This is reflected in the opportunity to carry out highquality experimental work within all the Course Units, and particularly in the Investigative Biology (Advanced Higher) Unit, which incorporates both practical techniques and skills of scientific investigation.

Recommended Entry Level

Pupils will normally be expected to have attained: Higher Biology at A or B

Course Description/Details

This course is composed of the following 3 Units:

- Cells and Proteins: proteomics, protein structure, binding and conformational change; membrane proteins; detecting and amplifying a stimulus; communication within multicellular organism and protein control of cell division. The Unit includes important laboratory techniques for biologists.
- **Organisms and Evolution:** evolution; variation and sexual reproduction; sex and behaviour and parasitism. This Unit covers techniques for ecological field study.
- Investigative Biology: This Unit builds on understanding of the scientific method from Higher Biology. Learners will develop knowledge and understanding of the principles and practice of investigative biology and its communication. The Unit covers scientific principles and processes, experimentation and critical evaluation of biological research.

Assessment Methods

Throughout the course, learners must:

- apply skills of scientific inquiry and draw on knowledge and understanding of key areas to carry out an experiment/practical investigation
- draw on knowledge and understanding of the key areas and apply scientific skills typically in an end of unit assessment.
- draw on knowledge and understanding to analyse and evaluate reports of biological research
- apply skills of experimentation and draw on knowledge and understanding of scientific principles and process to carry out a biological investigation

To gain the award of the Course, the learner must pass all of the Units as well as the Course assessment. Course assessment will provide the basis for grading attainment in the Course award at levels A-D. The Course assessment is externally assessed and composed of the following two components:

 Component 1 — question paper 100 marks 	 Component 2 — project 30 marks
--	--

Career Progression

On successful completion of this Course, the learner could progress to a biology-based HND/degree programme or one from a wide range of related areas, such as medicine, dentistry, veterinary medicine, professions allied to medicine, horticulture, pharmacology, environmental science and health or careers in a biology-based or related area including the health sector, agricultural science, education, environmental services

Faculty Principal Teacher

Mr M Stage

ADVANCED HIGHER CHEMISTRY

<u>Purpose</u>

The purpose of the Advanced Higher Chemistry Course is to develop learners' knowledge and understanding of the physical and natural environments beyond Higher level. The Course builds on Higher Chemistry, continuing to develop the underlying theories of chemistry and the practical skills used in the chemistry laboratory. The Course also develops the skills of independent study and thought that are essential in a wide range of occupations.

The Course also serves to equip all learners with an understanding of the impact of chemistry on everyday life, and with the knowledge and skills to be able to reflect critically on scientific publications and media reports concerning chemistry. By using the broad skills base and knowledge and understanding of detailed chemistry key areas, learners will become scientifically literate citizens and be able to review the science-based claims they will meet and to communicate in an evidence-based manner. This also allows learners to make their own reasoned decisions on many issues within a modern society increasingly dependent on chemistry, science and technology.

The Course gives opportunities for learners to develop the ability to think analytically, creatively and independently, and to make reasoned evaluations. Learners' creativity will be developed and encouraged through opportunities to generate new ideas when planning and designing investigations and experiments, which they will carry out.

Recommended Entry Level

Pupils will normally be expected to have attained: Higher Chemistry at A or B

Course Description/Details

This course is composed of the following three Units:

- **Inorganic and Physical Chemistry:** electromagnetic radiation; atomic structure; electron pair theory; physical and chemical properties of transition metals and their compounds. Chemical equilibria; factors which influence the feasibility of chemical reactions and reaction kinetics.
- Organic Chemistry and Instrumental Analysis: Structure, chemical and physical properties of organic compounds. Organic reaction types and mechanisms, linked to synthesis of organic chemicals. Origin of colour in organic compounds; elemental analysis and spectroscopic techniques; use of medicines.
- Researching Chemistry: Stoichiometric calculations; knowledge of practical techniques and apparatus. Identification, researching, planning and safely carrying out a practical investigation. Analysis of scientific articles.

Assessment Methods

Throughout the course, learners must:

- apply skills of scientific inquiry and draw on knowledge and understanding of the key areas to carry out an experiment
- draw on knowledge and understanding of the key areas and apply scientific skills, typically in an end of unit assessment.
- research, plan and carry out investigative practical work on a chosen topic

To gain the award of the Course, the learner must pass all of the Units as well as the Course assessment. Course assessment will provide the basis for grading attainment in the Course award at levels A-D. The Course assessment is externally assessed and composed of the following two components:

 Component 1 — guestion paper 100 marks 	 Component 2 — project 30 marks
--	--

Career Progression

On successful completion of this Course, learners could progress to:

- HND/degree programmes in a chemistry-based course or a related area, such as medicine, law, dentistry, veterinary medicine, engineering, environmental and health sciences
- careers in a chemistry-based discipline or related area, or in a wide range of other areas, such as oil and gas exploration, renewable energy development, engineering, technology, pharmaceuticals, environmental monitoring, forensics, research and development, management, civil service and education

Faculty Principal Teacher

Mr M Stage

ADVANCED HIGHER PHYSICS

Purpose

The Advanced Higher Physics Course has been designed to articulate with and provide progression from the Higher Physics Course. Through a deeper insight into the structure of the subject, the Course aims to provide an opportunity for reinforcing and extending the candidate's knowledge and understanding of the concepts of physics and developing the candidate's skills in investigative practical work.

The purpose of the Course is to build on the knowledge and skills developed by the learner in the Higher Physics Course and to use their knowledge and skills to analyse and solve problems in real-life contexts.

As our understanding of physics and its potential applications is constantly evolving, our success as an industrial society depends on the development of young people who are secure in their knowledge of physics and who are resilient, adaptable, creative and inventive.

The Course offers opportunities for collaborative and independent learning set within familiar and unfamiliar contexts, and seeks to illustrate and emphasise situations where the principles of physics are used and applied, thus promoting the candidate's awareness that physics involves interaction between theory and practice. An opportunity for engaging in some independent research is provided. The resulting elements of knowledge and understanding and skills form the basis of the Advanced Higher Physics.

Recommended Entry Level

Pupils will normally be expected to have attained: Higher Physics at A or B

Course Description/Details

This course is composed of the following four Units:

- Rotational Motion and Astrophysics: develop and apply concepts and principles in a wide variety of situations involving angular motion, rotational dynamics and angular momentum. An astronomical perspective is developed through a study of gravitation; leading to work on general relativity and stellar physics.
- Quanta and Waves: develop and apply concepts and principles in a wide variety of situations involving quantum theory and waves. The Unit introduces non-classical physics and considers the origin and composition of cosmic radiation. Simple harmonic motion is introduced. Work on wave theory is developed including: Interference, Division of amplitude, Division of wavelength, and Polarisation.
- Electromagnetism (half-unit): develop and apply concepts and principles in a wide variety of situations involving electromagnetism. Electric and magnetic fields and capacitors and inductors used in d.c. and a.c. circuits.
- Investigating Physics (half-unit): the Unit offers opportunities for independent learning set within the context
 of experimental physics. Learners will identify, research, plan and carry out a physics investigation of their
 choice.

Assessment Methods

Throughout the course, learners must:

- apply skills of scientific inquiry and draw on knowledge and understanding of the key areas to carry out an experiment
- draw on knowledge and understanding of the key areas and apply scientific skills, typically in an end of unit assessment.
- research, plan and carry out investigative practical work on a chosen physics topic

To gain the award of the Course, the learner must pass all of the Units as well as the Course assessment. Course assessment will provide the basis for grading attainment in the Course award at levels A-D. The Course assessment is externally assessed and composed of the following two components:

 Component 1 — question paper 100 marks 	 Component 2 — project 30 marks
--	--

Career Progression

On successful completion of this Course, learners could progress to HND/degree programmes in a physics-based course or a related area, such as engineering, electronics, computing, design, architecture or medicine. Or Careers in a physics-based discipline or related area, or in a wide range of other areas, such as oil and gas exploration, renewable energy, construction, transport, telecommunications or medical physics.

Faculty Principal Teacher

Mr M Stage

CAREERS INFORMATION

Sources Skills Development Scotland

Careers Literature in the School Library Resource Centre

In addition to printed material, there are computer packages on the school network to assist with career choice and careers information.

Pupils are also encouraged to use the resources available through <u>www.myworldofwork.co.uk</u>

UNIVERSITY AND COLLEGE APPLICATIONS

Higher Education

UCAS (Universities and Colleges Admissions Service)

This is the central agency through which students apply for most undergraduate degree courses and Dip of Higher Education courses at universities and colleges in the United Kingdom.

Application Forms for UCAS are completed electronically by pupils in school in September and sent to UCAS via the internet after references have been added by Principal Teachers of Pupil Support (PTPS) teachers. The UCAS website address, www.ucas.com giving data on all courses and Universities is supplied to each pupil and detailed instruction is given regarding procedures and dates for completion of Forms.

Students wishing to obtain extra information about admission to the Scottish Universities and Colleges can get this by consulting the "Entrance Guide to Higher Education in Scotland", copies of which are kept in the Library Resource Centre for reference. This Guide contains all necessary addresses along with other relevant information e.g. entrance requirements.

Further Education

Colleges such as Aberdeen College provide a range of education and training opportunities including NQ Courses and Units, Higher National Certificate and other vocationally focused courses, some of which relate to SVQ and GSVQ awards.

Students are advised to make sure of the closing dates for applications to these colleges and if in doubt, consult the School to obtain the relevant details.

Prospectuses

Prospectuses for all the main English and all the Scottish Universities and Colleges come to school during the summer holidays. They are displayed in the Careers Section of the School Library from September onwards.

Prospectuses must not be removed from the Library. Students may obtain their personal copies by contacting the appropriate College/University directly.

All interested students will receive their own copy of the Aberdeen University Prospectus during the visit to that University in September.

Information about Further Education colleges is also available in the School Library Resource Centre.