



S6 Additional Course Options Session 2022/23

**Advanced Highers
Scottish Baccalaureate**



Welcome to our S6 Course Option Booklet

Returning for S6 offers students a range of additional opportunities. These include: Advanced Higher Courses and the Scottish Baccalaureate.

Advanced Higher

Advanced Higher courses offer progression from Higher and allow students to further their learning in those subjects where they have a proven record of academic success or a desire/passion/interest in taking their learning to the next level. In order to pursue an Advanced Higher qualification, it is expected that a student will have successfully completed the course at higher level and will demonstrate a high level of personal motivation. Advanced Highers can provide an excellent bridge between school and university based learning in terms of the level of academic demand, the styles of learning, the emphasis on independent study and taking responsibility for meeting rigorous deadlines.

Students wishing to follow Advanced Higher courses should speak in the first instance to the Faculty Leader responsible for the subject(s) of interest.

Next Steps

The timeline and process for S6 options mirrors that detailed in our Senior Phase Handbook.

Art & Design: Advanced Higher

National Qualifications in Art and Design provide learners with a broad, practical experience of art and design practice and related critical activities. Learners develop practical skills as they explore how to visually represent and communicate their thoughts and ideas through their work, and study the works of artists and designers.



The Advanced Higher Art and Design Course enables learners to communicate personal thoughts, feelings and ideas through the creative use of art and design materials, techniques and/or technology. Learners analyse a range of art and design practice and critically reflect on the impact of external factors on artists, designers and their work. They plan, develop, produce and present creative art and design work, develop personal creativity, and use problem solving, critical thinking and reflective practice skills.

Is this course for me?

The Advanced Higher course is very demanding in terms of the physical output of Art/Design work. Learners will need to produce between 8 and 16 A1 sheets of Art/Design work, compared to the equivalent 3 A1 sheets at Higher, however much of this work will be experimental in nature and may be much quicker to produce. At this level learners will be expected to work in a very independent manner and be prepared to take full ownership of their creative decisions.

The course is an exciting opportunity for those with a strong work ethic, and a passion for Art and Design who wish to expand their practice and are willing to be experimental and playful with their work. It is also essential for those wishing to progress on to Art College.

Course Structure

Learners choose to specialise in either Expressive Activity or Design Activity

Course Assessment 100 marks

Practical Work: 64 marks

(Min 8 A1 sheets - Max 16 A1 sheets)

Below shows the distribution of marks for a candidate completing a Design Enquiry - this is very similar in essence to those completing an Expressive Enquiry - just replace design brief with Theme and design with Art!

Process: 32 marks (Design Example)

Candidates provide evidence of their ability to respond to their design brief by producing a visually coherent and sustained design process. This should show relevant investigative research and development leading to the effective resolution and realisation of design work.

Skills: 32 marks (Design Example)

Candidates provide evidence of their ability to apply their understanding of design practice by skilfully and creatively using materials, techniques and/or technology to explore and experiment with design elements.

Critical Analysis: 30 marks (Design Example)

(2000 words)

Candidates provide evidence of their ability to select a design work with relevance to their practical design work and discuss the impact of related contexts through analysis of the features of the design work.

Evaluation: 6 marks (Design Example)

(400 words)

Candidates provide evidence of their ability to evaluate the impact of creative decisions and the effectiveness of their design work with reference to the design brief, creative intentions and specific turning points.

Biology: Advanced Higher

Biology courses encourage the development of skills and resourcefulness, which lead to becoming a confident individual. Successful learners in biology think creatively, analyse and solve problems. The course develops responsible citizens by allowing learners to investigate current areas of biology research and investigate techniques. These are all skills which are useful in a variety of different workplaces and organisations.

Is this course for me?

Learners would normally be expected to have attained the skills, knowledge and understanding acquired by studying and passing the Higher Biology Course.

Progression – on completion of this course students could progress to University/College to undertake a HND/Degree Programme in a wide range of biology based subjects:

Biology develops key skills which are highly sought after in the following industries:

- Nursing & Medicine
- Pharmacology
- Forestry
- Veterinary Medicine
- Dentistry
- Education
- Food Science
- Psychiatry
- Agriculture
- Biotechnology
- Wildlife Conservation and Land Management

The Advanced Higher Biology Course focuses on the areas of cells and proteins, organisms and evolution, and investigative biology.

Learners develop a sound theoretical understanding and practical experience of experimental investigative work in biological science, and develop their ability to carry out complex practical scientific activities.

Course Structure

Unit One - Cells and Proteins

Learners will develop knowledge and understanding of proteomics, protein structure, binding and conformational change; membrane proteins; detecting and amplifying a stimulus; communication within multicellular organism and protein control of cell division. This skills-based sequence covers health and safety considerations, through the use of liquids and solutions, to a selection of relevant separation and antibody techniques. In addition, much work on cell biology is based on the use of cell lines, so includes techniques related to cell culture and microscopy.

Unit Two - Organisms and Evolution

Learners will develop knowledge and understanding of evolution; variation and sexual reproduction; sex and behaviour and parasitism. It covers the role of sexual reproduction and parasitism in the evolution of organisms. Methods of sampling and the classification and identification of organisms are introduced. Evolution is considered from the impact of drift and selection on variation. The study of sexual behaviour provides opportunities to use the techniques of ethology.

Unit Three - Investigative Biology

The Unit covers scientific principles and processes, experimentation and critical evaluation of biological research. Learners will do this through the key aspects of the scientific method, literature and communication and ethics; pilot studies, variables, experimental design, controls, sampling and ensuring reliability; evaluating background information, experimental design, data analysis and conclusions. The collection of experimental data will provide an opportunity to develop planning and organising skills.

Project

The purpose of the project is to allow the learner to carry out an in-depth investigation of a biology topic and produce a project-report.

Course Assessment

Each of the three units must be passed along with the following coursework assessment;

Component 1 — question paper 100 marks (completed in 3 hours)

Component 2 — project 30 marks. The course is graded A- D



Chemistry: Advanced Higher

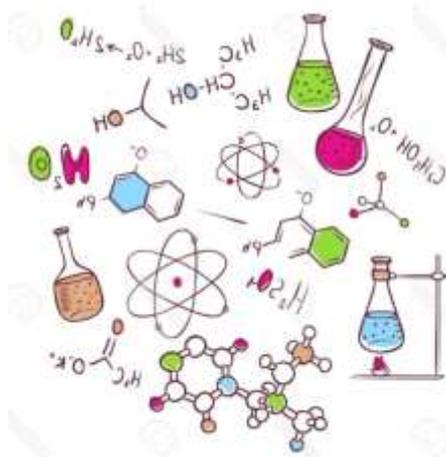
The Advanced Higher Chemistry Course further develops the underlying theories of chemistry and the practical skills used in the chemistry laboratory. The Course also develops the skills of independent study and thought that are essential in a wide range of occupations.

Is this course for me?

The Course is suitable for learners who are secure in their learning of Higher Chemistry.

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

- university or 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.



As well as providing an excellent grounding for the future study of chemistry and chemistry-related subjects, the Course also equips all learners with an understanding of the positive impact of chemistry on everyday life. Other learners may choose this Course because they have a particular interest in the subject and wish to take the opportunity of studying it in depth.

Course Structure

The Advanced Higher Chemistry course consist of the following three units and a project:

Unit 1 – Inorganic and Physical Chemistry

Atomic spectra; atomic orbitals; transition metals; chemical equilibrium; reaction feasibility; kinetics.

Unit 2 – Organic and Instrumental Analysis

Molecular structure; molecular orbitals; stereochemistry; organic synthesis, instrumental analysis; pharmaceutical chemistry.

Unit 3 – Researching Chemistry

Volumetric analysis; gravimetric analysis, colorimetric analysis, organic synthesis

Project

The purpose of the project is to allow the learner to carry out an in-depth investigation of a chemistry topic of their choice and produce a project-report. Recent projects, for example, have included:

- The synthesis of aspirin.
- Determination of the dissolved oxygen content of natural water samples.
- The caffeine content of tea.
- Biofuels.
- The SO₂ content of wine.

Course Assessment

The learner must complete the three units stated above and pass the coursework assessment. The coursework assessment consists of a project report (30 marks) and a question paper (100 marks); the course is graded A – D.

Design and Manufacture: Advanced Higher

The Course provides a broad and practical experience in design and manufacturing and builds on the experience, knowledge and skills which learners will have acquired in the Higher Design and Manufacture Course, as well as utilising aspects of their broader education and experiences.

The aims of the Course are to enable learners to:

- develop understanding and skills in the processes of designing for the manufacture of products in commercial and industrial contexts
- develop and apply an understanding of the factors which influence thinking for product design and manufacturing activities
- develop a critical and visual awareness associated with requirements for user interface and product detailing
- develop independence in learning and enquiry skills in the context of problem solving in designing and manufacturing
- develop economic, social and environmental awareness of the implications of a product's design through its life cycle

Is this course for me?

The Course is designed for all learners who can respond to a level of challenge including, but not limited to, those considering further study or a career in design and manufacturing-related disciplines. It provides sufficient breadth, flexibility and choice to meet the needs of all learners.

The Course will support learners with a deep interest in designing and manufacturing and those who are likely to progress to further study or employment-related fields.

On completion of this Course, learners could progress to:

- further studies in product designing or manufacturing-related disciplines
- careers in product design, product design engineering, industrial design, the manufacturing industries and sectors, production and planning, and model making

Course Structure

The Course consists of three mandatory Units and Course assessment. The Course assessment will consist of a project and a question paper.

Design and Manufacture: Product Analysis

This Unit will require learners to carry out an analysis of the performance and production of a product or suitable item.

Design and Manufacture: Product Development

This Unit allows learners to critically explore and consider design and manufacturing aspects of an existing commercial product.

Design and Manufacture: Product Evolution

The Unit allows learners to explore the historical factors which have influenced the design, development and manufacture of a commercial product in terms of the influences of technology, materials, trend, and policy, considering how these have directed and influenced its evolution.

To gain the award of the Course, the learner must pass all of the Units as well as the Course assessment. The required Units are shown in the Course outline section. Course assessment will provide the basis for grading attainment in the Course award.

Course Assessment

All Units are internally assessed. They can be assessed on a Unit-by-Unit basis or by combined assessment.

They will be assessed on a pass/fail basis within centres. SQA will provide rigorous external quality assurance, including external verification, to ensure assessment judgments are consistent and meet national standards.

The question paper introduces breadth to the assessment. It requires depth of understanding and application of knowledge from the Units.



English: Advanced Higher

English is offered at Advanced Higher level. The course enables learners to listen, talk, read, and write appropriately for different purposes, audiences, and contexts. Learners are given the opportunity to analyse and evaluate many different texts, such as prose fiction and non-fiction, poetry, media, and drama. They develop an understanding of the effect and impact of language and literary techniques, and are also able to create and produce their own written and spoken texts.

This course provides learners with valuable communication skills, as well as the ability to think critically and analytically. Learners are also encouraged to question, challenge, and develop their own opinions. Discussion and thoughtful responses are at the heart of all English courses, and learners' confidence and independent learning skills are fostered through whole class discussion, skill-based lessons, and regular, one-to-one feedback.

Is this course for me?

English provides flexibility, personalisation, and choice to enable learners to achieve in different ways and at different paces.

This course offers plenty of opportunity for learners to explore their creativity in the creation and production of written and spoken texts. Critical and analytical thinking skills are key to the evaluation and analysis of literature and non-fiction. Learners will explore a wide range of literary texts, as well as regularly reading non-fiction journalism and encountering a number of media texts. Learners are able to enhance their enjoyment and understanding of their own and other cultures, as this course fosters an appreciation of language and literature.

Learners develop their independent working skills through many aspects of all English course levels, and self-motivation and responsibility are key to success. Group work and presentations also allow pupils to build excellent interpersonal and team-working skills. Learners develop lifelong proficiencies in English which are indispensable and which have cross-curricular, far-reaching benefits.

Course Assessment

Advanced Higher – The learner must complete a coursework assessment, which consists of an externally marked portfolio (30 marks) and a comparative dissertation on their chosen topic and literature (30 marks). They sit a final exam consisting of two question papers (40 marks), one focussing on critically analysing an unseen text and one focussing on the critical analysis of taught texts. The course is graded A-D.



French: Advanced Higher

National Qualifications in Modern Languages develop learners' knowledge and understanding of a modern language and cover the contexts of society, learning, employability and culture. Studying a modern language provides learners with the opportunity to develop their reading, listening, talking and writing skills.

Advanced Higher Modern Language courses develop reading, listening and writing skills. Learners develop the ability to write a balanced argument in French. They also develop the skills of the research into a literacy text to compare and contrast it with a film and other written material, which is written up as an academic dissertation like folio for the specialist study.

Is this course for me?

The Course provides flexibility, personalisation and choice to enable learners to achieve in different ways and at a different pace. Learners have the opportunity to develop detailed language skills in meaningful real-life contexts of society, learning, employability, and culture.

Learners will develop skills in reading, listening, talking and writing, which are essential for learning, life and work; they will develop an understanding of how language works, use different media effectively for learning and communication and use language to communicate ideas and information.

The Course also provides learners with the opportunity to use creative and critical thinking to synthesise ideas and arguments; to enhance their enjoyment and their understanding of their own and other cultures; to explore the interconnected nature of languages; and to develop independent learning.

Students will develop their skills of understanding and using the French language. Using these skills in the useful contexts of education, work, tourism, lifestyle and the wider world. Prepare pupils for rigorous assessments and talking performance.

Learning a new language will enable learners to make connections with different people and their cultures, play a fuller part as global citizens, reflect, communicate and develop ideas through language, develop a sense of cultural awareness, enhancing their understanding and enjoyment of other cultures and their views and understand and use a wide range of different types of texts in different media.

Course Assessment

Reading – 30 Marks

Translation – 20 marks

Listening – 30 Marks

Discursive Writing – 40 Marks

Specialist Study – Written in English - 30 Marks

Performance – 50 marks

Totalling 200 Marks which are made into a percentage.

The course is graded A-D



Geography: Advanced Higher

The Advanced Higher Geography course provides a broad range of flexible learning contexts covering physical, human and global geographical environments, and brings together the natural and social sciences.

This course provides excellent preparation for University. It has a recognised high level skills development with huge opportunity for personalisation and choice. This course includes a compulsory fieldwork element developing problem solving, research and presentation skills developing literacy and numeracy through statistical analysis. The fieldwork can be applied to either the physical or human environment depending on individual choice. It is led by students with the support of the class teacher thus further developing leadership skills and encouraging pupils to take ownership of their own learning further preparing them for a successful future.

In today's society, with growing awareness of the impact of human activity upon the environment and scarce resources, the study of Geography foster positive life-long attitudes of environmental stewardship, sustainability and global citizenship. The study of Geography will furnish learners with the skills, knowledge and understanding to enable them to contribute effectively to their local communities and wider society.

Is this course for me?

Learners will develop a range of important and transferrable skills including: using, interpreting, evaluating and analysing a range of geographical information; interpreting and explaining geographical phenomena; using a range of maps and other data to process and communicate geographical information; and researching skills, including fieldwork. Learners will also work independently to plan and manage a complex programme of research in order to create a project on a study of their choice. Furthermore, learners will develop critical thinking and the ability to evaluate sources and viewpoints on a current geographical issue.

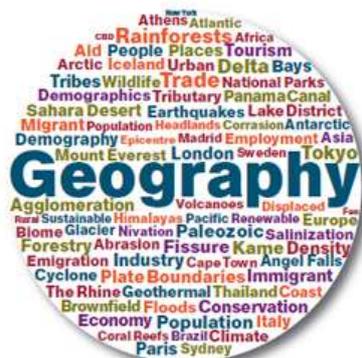
Course Structure

The Geography Course has two mandatory Units. Within each Unit there is a considerable degree of flexibility in contexts which can be studied to allow personalisation and choice.

- Geographical Skills
- Geographical Issues

Course Assessment

Advanced Higher – The learner must complete the two units stated above and pass the coursework assessment. The coursework assessment consists of a portfolio (100 marks) and a question paper (50 marks); the course is graded A – D.



Mathematics: Advanced Higher

National Qualifications in Mathematics are designed to motivate and challenge learners by enabling them to select and apply mathematical techniques in a variety of mathematical and real-life situations. These Courses equip learners with the skills needed to interpret and analyse information, simplify and solve problems, and make informed decisions.

The **Advanced Higher** course extends learners' mathematical knowledge in algebra, geometry and calculus. It includes matrix algebra, complex numbers, and vectors, formalises the concept of mathematical proof and explores calculus, and its applications, in more depth.

Advanced Higher Mathematics emphasises the need for candidates to undertake extended thinking and decision making, to solve problems and integrate mathematical knowledge. The course offers candidates, in an interesting and enjoyable manner, an enhanced awareness of the range and power of mathematics.

Is this course for me?

Mathematics is rich and stimulating. It engages and fascinates learners of all ages, interests and abilities. Learning mathematics develops logical reasoning, analysis, problem-solving skills, creativity, and the ability to think in abstract ways. It uses a universal language of numbers and symbols, which allows us to communicate ideas in a concise, unambiguous and rigorous way.

Mathematics equips us with many of the skills required for life, learning and work. Understanding the part that mathematics plays in almost all aspects of life is crucial. This reinforces the need for mathematics to play an integral part in lifelong learning and be appreciated for the richness it brings.

Course Structure

The Advanced Higher course consists of the following three units:

- Methods in Algebra and Calculus
- Applications in Algebra and Calculus
- Geometry, Proof and Systems of Equation

Course Assessment

The learner must complete the three units stated above and course assessment. The course assessment consists of two papers:

Paper 1: 1 hour non-calculator (35 marks)

Paper 2: 2 hours 30 minutes calculator (80 marks)

The course is graded A – D.



Music: Advanced Higher

National Qualifications in Music provide learners with a broad, practical experience of performing and creating music. At Advanced Higher, learners further develop and refine performing skills in solo and/or group settings using two selected instruments or one instrument and voice. These courses also enable learners to specialise in composing skills and galvanise their understanding of music concepts and styles in more complex listening contexts.

Is this course for me?

The course demands a certain level of skill and ability in performing and previous knowledge in Music. For some learners who receive instrumental and/or singing lessons out with school, this course still may be suitable without recent experience in the subject. It is suitable for learners with an already well developed musical ability and stable understanding of music and its makeup. It could also provide a pathway for those who want to progress to higher levels of study out-with school.

The course is practical and experiential and there is considerable scope for personalisation and choice through the activities of performing, creating and understanding music. This makes the course accessible as it takes account of the needs of different learners and can be contextualised to suit a diverse range of learner needs, interests and aspirations.

On completing the course, learners will be able to: perform a programme of music with accuracy and maintaining musical flow; create their own original music; self-reflect on and evaluate their own work and that of others; listen to music with awareness, understanding and discrimination; and improve their musical creativity and performing skills by critically evaluate their own work and the work of others.

Course Structure

Courses at Advanced Higher consist of the following three units:

- **Performing Skills**
Pupils choose to learn two instruments or one instrument and voice. The performing skills which develop are then utilised in both solo and group settings providing a broad range of experiences. Pupils will be encouraged throughout the process to evaluate their success and identify steps towards improvement.
- **Composing Skills**
Pupils create an original piece of music whilst learning straightforward compositional methods and music concepts. This allows pupils to understand the creative process and provides the opportunity for expressing themselves through the music they create.
- **Understanding Music**
Pupils hone and develop their understanding of the social and cultural factors, which influence music through the study of a range of musical styles. Pupils will develop their knowledge of musical signs, symbols and concepts through a range of listening and musical literacy exercises, which develop their critical and analytical listening skills.

Course Assessment

Question paper (40 marks)
Performance (60 marks)

Course is graded A – D.

The performance is externally assessed in April/May by an SQA visiting assessor (a later date than the National 5/Higher performance exam diet) whilst the question paper is completed in the May as part of the main diet of SQA exams.



Physics: Advanced Higher

The Advanced Higher course has been designed to articulate with and provide progression from the Higher Physics course. The course aims to provide pupils with a challenging experience in order of study the subject at greater depth. The course seeks to illustrate and emphasise situations where the principles of Physics are used and applied, thus promoting the pupils' awareness that Physics involves interaction between theory and practice.

Is this course for me?

The course encourages independent learning and allows learners to make connections between science and the world in which they live, learn and work. Learners will develop transferable skills and be better prepared for future study and/or employment.

Due to the interdisciplinary nature of the sciences, learners will benefit from studying Physics along with Mathematics and Chemistry/Biology/Engineering Science, as this will provide a strong base for further study or employment.

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
- 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 or telecommunications.

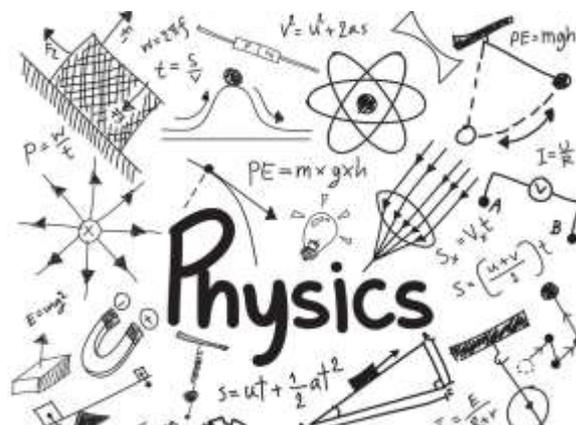
As well as providing an excellent grounding for the future study of physics and physics-related subjects, the course also equips all learners with an understanding of the positive impact of physics on everyday life.

Course Structure0

The course is made up of four units:

- Rotational Motion & Astrophysics
- Quanta & Waves
- Electromagnetism
- Physics Investigation

The investigation involves an independent project with the topic chosen by the learner, who will individually investigate/research the underlying physics. This is an open-ended task which may involve a significant part of the work being carried out without close supervision. This includes making independent and rational decisions based on evidence and interpretation of scientific information, and the analysis and evaluation of their results. This will further develop and enhance their scientific literacy.



Course Assessment

The learner must complete the three units stated above and pass the coursework assessment. The coursework assessment consists of a project report (30 marks) and a question paper (100 marks); the course is graded A-D.

The Scottish Baccalaureate in Science

The Scottish Baccalaureate in Science has been designed to provide a challenging and rewarding experience for candidates in sixth year of secondary school.

Is this course for me?

It is based on a coherent group of subjects at Higher and Advanced Higher level with addition of the Interdisciplinary Project, which offers added breadth and value and helps to equip the candidate with the generic skills, attitudes and confidence necessary to make transition into Higher Education and/or employment.

The Scottish Science Baccalaureate requires two, different eligible Science Courses, at least one which must be as Advanced Higher level.

The mandatory components of the Science Baccalaureate are:

Interdisciplinary Project Unit	Advanced Higher	SCQF Level 7	16 SCQF Points
2 Eligible Courses	Advanced Higher	SCQF Level 7	64 SCQF Points
1 Eligible Course	Higher	SCQF Level 6	24 SCQF Points

Course Structure

Candidates may choose two core courses, or one core and one Broadening course from the following lists:

Core Courses

Biology *
Chemistry *
Environmental Science
Human Biology
Physics *

Broadening Courses

Computing Science *
Design & Manufacture *
Engineering Science *
Graphic Communication *
Psychology

*Currently available at Advanced Higher Level

One of the above courses must be Mathematics * (or Mathematics of Mechanics * or Statistics *) and this may be at Higher or Advanced Higher Level.

Components do not have to be completed in the same academic year, for example a higher course completed in S5 can contribute.

The Interdisciplinary project Unit will be graded A, B or C. This project can be undertaken as a standalone topic without the need to complete the other components of the award.

