THE BRITISH SCHOOL OF GRAN CANARIA

SUMMARY OF SUBJECT CONTENT

KEY STAGE 5
Y12-Y13

ACADEMIC YEAR 2025-2026

CONTENTS

ART

The students will be working on their own personal projects. They must select their own starting points, produce observational images, research Artists and Art movements, experiments and develop materials, refine their chosen processes and designs, and produce final pieces. Final pieces for the Coursework projects can be produced over any period of time and the students do not require supervision. Final pieces for the exam project at the end of Y12 need to be produced under supervision during a 15h exam. In Y13 the students will produce one large scale coursework project on A2. They also produce a written investigation related to the coursework 1500 words. The students are expected to design every aspect of their own projects and should be able to work independently.

Topic List Y12

Term 1	**Term 2**	**Term 3**
• Coursework Project	• Externally Set Assignment	

Topic List Y13

Term 1	**Term 2**	**Term 3**
• Personal Investigation	• Personal Investigation	

BIOLOGY

The International Advanced Level in Biology aims to:

- enable students to develop their interest in Biology and how different areas of Biology relate to each other
- appreciate how society makes decisions about Biology-related issues and how Biology contributes to the success of the economy and society,
- develop a deeper appreciation of the skills, knowledge and understanding of how Science works.

The syllabus includes inspiring topics that include current scientific developments, and motivating practical work. Experiments cover a range of different topic areas and require the use of a variety of different practical techniques.

It is not compulsory to study Chemistry alongside A Level Biology, although a good understanding of Chemistry is very useful to help understand the biochemical elements of the Biology course.

Topic List Y12

Term 1

Unit 1

- Biochemistry of common molecules
- Cardiovascular disease (CVD)
- Lifestyle factors affecting CVD
- Protein-synthesis
- DNA replication
- Inheritance and inherited disease
- Practical investigation skills (Unit 3)

Term 2

Unit 2

- Eukaryotic and prokaryotic cells
- Stem cell research
- Cell differentiation
- Plant transport
- Uses of plant material
- Habitats, niches and adaptation
- Measures of biodiversity
- Extinction, sustainability and conservation
- Practical investigation skills (Unit 3)

Term 3

- Revision

Topic List Y13

Term 1	Term 2	Term 3
Unit 4	Unit 5	• Revision
• Biochemistry of photosynthesis • Direct indicators and proxy indicators of climate change • Impact of climate change • Plant succession • DNA profiling • Viral and bacterial infection • Forensic science • Practical investigation skills (Unit 6)	• Biochemistry of respiration • Muscle contraction • Homeostasis • Plant hormones, germination and flowering • Brain structure and function • Nerve structure and function • Effect of chemicals on brain function • Effect of genes and the environment on development and learning • Genetic engineering	

BUSINESS

A Level Business enables students to understand and appreciate the nature and scope of business, and the role it plays in society. The units delivered cover economic, environmental, ethical, governmental, legal, social and technological issues, and encourage a critical understanding of organisations, the markets they serve and the process of adding value. Students will study different business concepts and strategies in relation to their own country and in an international context. The skills and theory of strategic management will be thoroughly explored as will motivational theories, economic activities and project management. The AS course builds on the work done at IGCSE and the A2 course builds on the work done at AS Level. The curriculum is outlined below:

Topic List Y12

Term 1

- **Business and its environment:**
  - Enterprise
  - Business structure
  - Size of business
  - Business objectives
  - Stakeholders in a business
- **Human resource management:**
  - Management
  - Motivation
  - Human resource management

Term 2

- **Marketing:**
  - The nature of marketing
  - Market research
  - The marketing mix
- **Operations management:**
  - The nature of operations
  - Capacity utilisation and outsourcing
  - Inventory management

Term 3

- **Finance and accounting:**
  - Business finance
  - Sources of finance
  - Costs
  - Forecasting and managing cash flows
  - Budgets
- **Exam preparation and revision**

Topic List Y13

Term 1

- **Business and its environment:**
- External influences on business activity
- Business strategy
- **Human resource management:**
- Human resource management strategy
- Leadership
- Organisational structure
- Business communication

Term 2

- **Marketing:**
- Marketing analysis
- Marketing strategy

- **Operations management:**
- Operations strategy
- Location and scale
- Quality management

Term 3

- **Finance and accounting:**
- Financial statements
- Analysis of published accounts
- Investment appraisal
- Finance and accounting strategy

CHEMISTRY

Edexcel International Advanced Level: IAS (XCH01) and IAL (YCH01)

The course aims to develop:

* an interest in chemistry

* an appreciation of scientific issues and their impact on the economy and society

* an understanding of How Science Works

* knowledge and understanding of the subject.

The course requires students to:

* recall and show understanding of scientific knowledge

* select, organise and communicate information

* analyse and evaluate scientific information

* apply scientific knowledge and processes to unfamiliar situations

* assess the validity, reliability and credibility of information.

Topic List Y12

Term 1	**Term 2**	**Term 3**
• Formulae, equations and amount of substance • Atomic structure and the periodic table • Bonding and structure • Introductory organic chemistry and alkanes • Alkenes	• Energetics • Intermolecular forces • Redox chemistry and groups 1, 2 and 7 • Introduction to kinetics and equilibria • Organic chemistry: halogenoalkanes, alcohols and spectra	• Revision

Topic List Y13

Term 1	Term 2	Term 3
• Kinetics • Entropy and energetics • Chemical equilibria • Acid-base equilibria • Organic chemistry: carbonyls, carboxylic acids and chirality • Spectroscopy and chromatography	• Redox equilibria • Transition metals and their chemistry • Organic chemistry: arenes • Organic nitrogen compounds: amines, amides, amino acids and proteins • Organic synthesis	• Revision

ENGLISH LITERATURE

English Literature is an academically rigorous subject that mirrors university study and refines the students' craft as academic writers. The curriculum is diverse as pupils study a range of pre-1900 and post-2000 poetry, prose and drama. The course encourages pupils to read widely and independently. They will be expected to engage critically and creatively with the reading material and develop and effectively apply their knowledge of literary analysis and evaluation. This course will allow them to explore the contexts of the texts they are reading and others' interpretations of them and undertake independent and sustained studies to deepen their appreciation and understanding of English literature, including its changing traditions. During the course, students learn new knowledge whilst simultaneously developing a range of soft skills which enable students to:

● read widely and independently

● engage critically and creatively with a substantial body of texts and develop ways of responding to them

● develop and effectively apply their knowledge of literary analysis and evaluation

● explore the contexts of the texts they are reading and others' interpretations of them

● undertake independent and sustained studies to deepen their appreciation and understanding of English literature, including its changing traditions

● learn to partake in intellectual debates

● learn to plan, refine and craft a written argument.

Topic List Y12

Term 1	**Term 2**	**Term 3**
• Prose – *The Kite Runner* • Modern drama – *A Streetcar Named Desire*	• Post-2000 poetry collection • Shakespeare - *Othello*	• Revision • Pre-1900 Romantic poetry

Topic List Y13

Term 1	**Term 2**	**Term 3**
• Prose – comparative paper - *Frankenstein* • Pre-1900 Romantic poetry	• Prose – comparative paper - *The Handmaid's Tale* • Shakespeare - *Hamlet*	• Unseen poetry • Revision

FRENCH

A-level French builds upon your existing knowledge gained at GCSE. The emphasis of the A-level language course focuses on improving communication through different means as well as being able to use it in a variety of situations, developing key skills areas.

The course has been designed to give students a profound understanding of French. Not only will they develop their grammar and vocabulary but also their understanding of how people live and use language on a day-to-day basis.

The course aims to develop an interest in, and enthusiasm for, language learning. It is hoped that by the end of the course your child will be able to communicate confidently and effectively in the language, for a range of purposes.

Topic List Y12

Term 1

- Youth matters (Family relationships and friendships, Peer pressure and role models, Music and fashion, Technology and communication)
- Lifestyle, health and fitness (Food and diet, Sport and exercise, Health issues, Urban and rural life)

Term 2

- Environment and travel (Tourism, travel and transport, Natural disasters and weather, Climate change and its impact, Energy, pollution and recycling)
- Education and employment (Education systems and types of schooling, Pupil/student life, Volunteering and internships, Jobs and unemployment)

Term 3

- Exam revisions
- Oral examination

Topic List Y13

Term 1

- MAI 68
- Technology in the French-speaking world (Scientific advances, Technological innovations, Impact on life and environment)
- Ethics in the French-speaking world (Linked to technologies and progress)
- Current affairs

Term 2

- MAI 68
- Society in the French-speaking world (Migration, Equality, Politics, Customs)
- Ethics in the French-speaking world (Beliefs, Law and order, Moral issues (e.g. euthanasia, adoption, genetic modification)
- Current affairs

Term 3

- Exam revisions
- Oral examination

GEOGRAPHY

The course will enable students to be inspired by their geographical understanding, to engage critically with real world issues and places, and to apply their geographical knowledge, theory and skills to the world around them. Students will grow as independent thinkers and as informed and engaged citizens, who understand the role and importance of geography as one of the key disciplines relevant to understanding the world's changing peoples, places and environments. Students will study discrete Human and Physical elements both in Year 12 and Year 13. The course is challenging and incorporates skills such as data interpretation and manipulation, evaluative essays and the critical ability to make connections between the sciences and humanities subjects.

Topic List Y12

Term 1	Term 2	Term 3
• **Hydrology and Fluvial Geomorphology** The drainage basin system. Discharge relationships within drainage basins. River channel processes and landforms. The human impact. • **Atmosphere and weather** Diurnal energy budgets. The global energy budget. Weather processes and phenomena. The human impact. • **Rocks and weathering** Plate tectonics. Weathering and rocks. Slope processes. The human impact.	• **Population** Natural increase as a component of population change. Demographic transition. Population resource management. The management of natural increase. • **Migration** Migration as a component of population change. Internal migration. International migration. A case study of international migration. • **Settlement Dynamics** Changes in rural settlements. Urban trends and issues of urbanisation. The changing structure of urban settlements. The management of urban settlements.	**Full, timed exam practice.**

Topic List Y13

Term 1	Term 2	Term 3
• **Coastal Environments** Coastal processes Characteristics and formation of coastal landforms. Coral Reefs. Sustainable management of coasts. • **Hazardous Environments** Hazards resulting from tectonic processes.	• **Environmental management** Sustainable energy supplies. The management of energy supplies. Environmental degradation. The management of a degraded environment. • **Global interdependence** Trade flows and trading patterns. International debt and international aid.	**Full, timed exam practice.**

Hazards resulting from mass movement. Hazards resulting from atmospheric disturbances. Sustainable management of hazardous environments.	The development of international tourism. The management of international tourism.	

GERMAN

This qualification will equip students with transferable skills such as autonomy, resourcefulness, critical and analytical thinking, and linguistic, cultural and cognitive flexibility that will enable them to proceed to further study or to employment.

The 7 General Topic Areas covered over the two years relate to the interests of students studying the language. Resources include culturally sensitive and authentic texts.

• Speaking communication skills are assessed separately in Units 1 and 3.

• Skills of listening, reading and writing are assessed in Units 2 and 4.

Students at this level are expected to understand the main ideas of complex text and spoken language about both concrete and abstract topics; interact with a degree of fluency and spontaneity that makes interaction possible without strain; produce clear, detailed text on a wide range of subjects; and explain a viewpoint on a topical issue, giving the advantages and disadvantages of various options.

Topic List Y12

Term 1

- Youth matters (Family relationships and friendships, Peer pressure and role models, Music and fashion, Technology and communication)
- Lifestyle, health and fitness (Food and diet, Sport and exercise, Health issues, Urban and rural life)

Term 2

- Environment and travel (Tourism, travel and transport, Natural disasters and weather, Climate change and its impact, Energy, pollution and recycling)
- Education and employment (Education systems and types of schooling, Pupil/student life, Volunteering and internships, Jobs and unemployment)

Term 3

- Revision and exam preparation

Topic List Y13

Term 1

- Society in the German-speaking world (Migration, Equality, Politics, Customs)
- Ethics in the German-speaking world (Beliefs, Law and order, Moral issues (e.g. euthanasia, adoption, genetic modification)
    - Current affairs
    - Research Based Essay: Germany after WW1 and WW2

Term 2

- Technology in the German-speaking world (Scientific advances, Technological innovations, Impact on life and environment)
    - Current affairs
    - Research Based Essay: Germany after WW1 and WW2

Term 3

- Revision and exam preparation

HISTORY

Students begin their A Level History course with an in-depth study of Germany from 1918 to 1945;, an era that oversaw a change from a democratic experiment into an oppressive dictatorship with worldwide consequences. Students consider how far this period was characterised by significant social, cultural, economic and political change. Students then contemplate a broad sweep of Russian history, from the cataclysmic revolution of 1917 to the equally seismic fall of the Berlin Wall and the breakup of the Russian empire in 1990 and assess how far Russia changed during this period. In year 13 students study the defining element in international relations since 1945; the Cold War and are encouraged to analyse the differing historical interpretations advanced by Historians to explain its outbreak, intensity and partial resolution. Finally, students study the continuingly pertinent issue of race relations in the U.S.A. and the extent to which people of colour were 'free at last' by 2009.

Topic List Y12

Term 1	Term 2	Term 3
• Germany, 1918-1945 • Weimar Germany - The Democratic Experiment 1918-1929 • The Rise of the Nazis 1929-1933 • Nazi Germany 1933-1939 • Germany at War 1939-1945	• Russia, 1917-1991. From Lenin to Yeltsin. • Communist government in the USSR, 1917-1991 • Industrial and agricultural change, 1917-1991. • Control of the people, 1917-1991	• Social developments 1917-1991.

Topic List Y13

Term 1	Term 2	Term 3
• The World Divided. Superpower Relations, 1943-1990. • Historical interpretations. What explains the outbreak and development of the Cold War in the years 1943-1953? • Conciliation and confrontation, 1953-1964. • Stalemate and détente, 1964-1979. • Renewed confrontation and resolution, 1980-1990.	• Civil Rights and Race Relations in the USA, 1865-2009. • Free at last! 1865-1877. • The triumph of ¨Jim Crow, 1883-1900. • Roosevelt and race relations 1933-1945. • I have a dream, 1954-1968.	• Race relations and Obama´s campaign for the presidency, 2000-2009.

COMPUTER SCIENCE

Learners will follow the syllabus of the Cambridge exam board and is increasingly becoming a popular subject at university.

It is envisaged that learners will use the skills and knowledge of computer science acquired through this course in one of three ways:

- to provide a general understanding and perspective of the development of computer technology and systems, which will inform their decisions and support their participation in an increasingly technologically dependent society
- to provide the necessary skills and knowledge to seek employment in areas that use computer science
- to develop their knowledge and understanding of computer science through entry to higher education, where this qualification will provide a useful foundation for further study of computer science or more specialist aspects of computer science.

Topic List Y12

Term 1	**Term 2**	**Term 3**
• Information Representation • Communication and internet technologies • Ethics and Ownership • Processor Fundamentals	• Database and data modelling • Systems software • Security and data integrity	• Introduction to programming • Practise exam questions

Topic List Y13

Term 1	**Term 2**	**Term 3**
• Programming • Software development • Data Representation	• Communication and internet technologies continued • Security • Systems software continued	• Computational thinking and problem solving • Algorithm design • Further programming

MATHEMATICS

The AS and A level course aims to:

- develop an understanding of coherence and progression in mathematics and of how different areas of mathematics can be connected
- recognise how a situation may be represented mathematically and understand the relationship between 'real-world' problems and standard and other mathematical models and how these can be refined and improved
- acquire the skills needed to use technology such as calculators and computers effectively, recognise when such use may be inappropriate and be aware of limitations
- develop an awareness of the relevance of mathematics to other fields of study, to the world of work and to society in general
- take increasing responsibility for their own learning and the evaluation of their own mathematical development.

Each year, students study two pure units and one option unit.

Topic List Y12

Term 1

- **Pure Maths P1**
  - Algebra and functions;
  - Coordinate geometry in the (x, y) plane;
  - Trigonometry;
  - Differentiation;
  - Integration.
- **Pure Maths P2**
  - Proof
  - Algebra and functions;
  - Coordinate geometry in the (x, y) plane;
  - Sequence & series;
- **First half of one option unit**

Term 2

- **Pure Maths P2**
  - Exponentials & logarithms;
  - Differentiation;
  - Integration.
- **Second half of one option unit**

Term 3

- **Revision & Exams**

Topic List Y13

Term 1

- **Pure Maths P3**
  - Algebra and functions;
  - Trigonometry;
  - Exponentials & logarithms
  - Differentiation;
  - Integration;
  - Numerical methods.
- **Pure Maths P4**
  - Proof
  - Algebra and functions;
  - Coordinate geometry in the (x, y) plane;
  - Binomial expansion.
- **First half of one option unit**

Term 2

- **Pure Maths P4**
  - Differentiation;
  - Integration;
  - Vectors.
- **Second half of one option unit**

Term 3

- **Revision & Exams**

Option Units:

- **Statistics 1**
  - Mathematical models in probability and statistics;
  - Representation and summary of data; probability;
  - Correlation and regression;
  - Discrete random variables;
  - Discrete distributions;
  - The Normal distribution.
- **Mechanics 1**
  - Modelos matemáticos en mecánica
  - Vectores en mecánica;
  - Kinematics and dynamics of a particle moving in a straight line;
  - Statics of a particle;
  - Moments.
- **Decision Maths D1**
  - Algorithms
  - Algorithms on graphs
  - Critical path analysis
  - Linear Programming

MUSIC

Cambridge International AS and A Level Music (9483) learners will:

- develop appreciation of music, through listening, composing and performing,
- develop aural appreciation of a variety of Western and non-Western music styles, genres and traditions,
- encourage an informed critical response to music,
- develop creative and interpretative skills through composing and performing in Western and/or non-Western traditions,
- deepen understanding of music in its wider cultural context,
- communicate understanding confidently, supporting judgements with evidence-based argument,
- develop the skills and understanding needed for the study of music in higher education and/or lifelong learning.

The course consists of 5 components:

- AS Music - **Y12**
    - Component 1 - Listening
        - 2 hour exam
    - Component 2 - Practical Music
        - 6-10 performance
        - Two 1-2 minute compositions
- A2 Music (choose 2 out of the 3 options) - **Y13**
    - Component 3 - Extended Performance
        - 15-20 minute performance
        - 1000-1500 word research report
    - Component 4 - Extended Composition
        - 6-8 minute composition
        - 1000-1500 word research composition
    - Component 5 - Investigating Music
        - 2500–3000 word essay
        - up to 500 word reflective statement

Topic List Y12

Term 1	**Term 2**	**Term 3**
• General Listening Skills ○ Rudiments	• Section B Set Works (Exam June 23 and 24)	• Revision • Past Paper Practice

○ Melody and Rhythm ○ Harmony ○ Texture and Timbre ○ Ensembles ○ Genre ○ Structure ○ Compositional Techniques ○ Instrumental and vocal effects ● Section A Set Works (Exam June 23 and 24) ○ Bach Violin Concerto in A minor (BWV 1041) ○ Handel Water Music Suite in F Major (movs. 1, 2, 5 and 8) ● Composing ○ AS Composition 1 ● Performing ○ Christmas Concert (in ensemble)	○ Grieg Peer Gynt Suite nº 2 ○ Rimsky-Korsakov Scheherezade ○ Debussy La Cathedrale Engloutie • Practice Section C • Composing ○ AS Composition 2 • Performing ○ Easter Concert (individual) ○ AS Recordings	
<u>Topic List Y13</u>		
Term 1 Individual Coursework	**Term 2** Individual Coursework	**Term 3** Individual Coursework

PHYSICAL EDUCATION

In A Level Physical Education you will learn about:

• The diverse nature of sport.

• The interdependence of various areas of sport and physical education.

• Sporting success and failure.

• How athletes need to adapt physically and mentally to the changing sports environment.

• Investigating the impact of technology and commercialism on participation and performance.

• How to refine and analyse your own performance.

• How to make decisions about what to do in your own fitness and training.

The course consists of **four** components:

• **Component 1** you will learn about the physiological and biomechanical workings of the body. You will be introduced to the anatomical make-up of a performer and how this works alongside training, nutrition and recovery to impact performance.

• **Component 2** you will develop knowledge of the psychological and social principles that underpin physical education and sport. You will explore the role that sports psychology has in facilitating optimal sporting performance of an individual athletes

• **Component 3** you will develop your practical skills in the role of either a player or a coach. You will demonstrate a range of skills, tactics and strategies or compositional ideas while under pressure, in both a conditioned practice and a formal/competitive situation.

• **Component 4** you will undertake an **independent study** to complete a **Performance Analysis and a resulting Performance Development Programme (PDP)** in your chosen sport as a performer or coach and sports teams.

Y12 A Level Topic list

Term 1	**Term 2**	**Term 3**
• Applied Anatomy and Physiology • Skill Acquisition	• Applied Anatomy and Physiology • Skill Acquisition	• Exercise Physiology • Skill Acquisition

Y13 A Level Topic list

Term 1	**Term 2**	**Term 3**
• Biomechanics of Movement • Sports Psychology • Skill Acquisition	• Sport and Society • Skill Acquisition	• Revision and examination practice • Coursework and practical completed

PHYSICS

Students progress from IGCSE Science to:

- sustain and develop their interest in physics and its applications
- develop an understanding of the link between theory and experiment
- improve their skills in the design and execution of experiments
- gain essential knowledge and understanding in physics
- learn about applications of physics and engineering in the wider world

Practical work is undertaken regularly, and there is room for students to develop their own investigations. The study of Physics requires strong mathematical skills, so it is beneficial (but not mandatory) to study A Level Mathematics with Physics.

Topic List Y12

Term 1

Mechanics

- Graphs of motion
- Suvat equations
- Projectiles
- Drag & terminal velocity
- Work and energy
- Power

Materials

- Fluid flow
- Hooke's law
- Stress, strain, Young modulus
- Material properties

Electricity

- Series and parallel circuits
- Charge, current, e.m.f., resistance
- Superconductivity

Term 2

Electricity

- Potential divider
- Sensing and control circuits

Waves & Light

- Wavefronts and rays
- Wave properties
- Stationary waves
- Reflection, refraction, total internal reflection
- Diffraction
- Phase, polarization, Doppler effect
- Electromagnetic spectrum
- Photoelectric effect
- Solar cells

Term 3

Revision

Topic List Y13

Term 1

Further Mechanics

- Momentum
- Circular Motion

Electricity & Magnetism

- Field shapes
- Coulomb's Law
- Capacitors
- Motor effect
- Electromagnetic induction, Lenz's law
- Generators, transformers

Particle Physics

- Atomic structure
- Particle accelerators
- Particle detectors
- Standard model
- Particle interactions & equations

Term 2

Oscillations

- Simple harmonic motion
- Damping
- Resonance

Nuclear Physics

- Alpha and beta decay
- Gamma emission
- Fission and fusion
- Nuclear equations

Thermal Physics

- Temperature scales
- Heat transfer
- Specific heat capacity
- Internal energy
- Gas laws

Astrophysics

- Gravitational fields
- Stefan's law, spectra, Wien's law
- Stellar classification
- Hertzsprung Russell Diagram
- Hubble's law
- Fate of universe, dark matter

Term 3

Revision

IAL SPANISH

Students taking this A2 subject will sit the exam at the end of Year 12. In Unit 1, students must answer orally a series of questions on a general topic area of their choice. In Unit 2, listening, reading, grammar and writing are assessed. Unit 3 is another oral exam in which students defend a stance on an issue of their choice. Finally, Unit 4 involves the study of a literary text set by Edexcel. This exam is taken as an opportunity to engage students in further reading and in providing pupils with opportunities to increase their knowledge and awareness of current affairs. Both oral units take place in April/May.

Topic List Y12

Term 1

- **UNIT 4:** Estudio de una obra literaria. Prácticas de creación textual.

Term 2

- **UNIT 2:** Técnicas y prácticas de examen.
- **UNIT 1/UNIT 3:** Preparación de las unidades orales del examen. Seguimiento de prensa y de temas de actualidad. Investigación de dos de las áreas indicadas en el temario oficial.

Term 3

- **UNIT 2:** Técnicas y prácticas de examen.
- **UNIT 4:** Práctica de examen.