

## **Cambridge International AS & A Level**

### **Subject Learning Objectives**

#### **English General Paper 8021**

Cambridge International AS Level English General Paper develops a set of transferable skills. These include comprehension, constructing an argument, presenting views, and writing English coherently and persuasively. Learners can apply these skills across a wide range of subjects and these skills equip them well for progression to higher education or directly into employment.

#### **Aims**

The aims are to enable students to:

- develop understanding and use of English language in the context of contemporary topics
- encourage and appraise a broad range of topics
- develop a wider awareness and knowledge of contemporary issues through reading
- develop independent reasoning skills
- develop the skills of interpretation, analysis, evaluation and persuasion
- develop skills in writing structured and developed arguments, and present reasoned explanations
- develop the ability to present a point of view clearly, and consider and reflect upon those of others.

Topic and skills overview

Learners will have the opportunity to gain knowledge and understanding of issues in these three broad topic areas:

1. Economic, historical, moral, political and social
2. Science, including its history, philosophy, ethics, general principles and applications; environmental issues; technology and mathematics
3. Literature, language, the arts, crafts, and the media.

Learners consider topics within local and international contexts. Learners should be able to draw upon knowledge and understanding gained from studying other subjects. Through the study of these broad topic areas, learners develop effective reading and writing skills in English. They work with information, ideas and opinions. They analyse and evaluate opinions and ideas. They also learn how to build an argument. These skills are all highly transferable and will help learners in other subjects they are studying, and equip them for higher education or employment.

## **Mathematics (9709)**

Cambridge International A Level Mathematics develops a set of transferable skills. These include the skill of working with mathematical information, as well as the ability to think logically and independently, consider accuracy, model situations mathematically, analyse results and reflect on findings.

Learners can apply these skills across a wide range of subjects and the skills equip them well for progression to higher education or directly into employment.

### **Aims**

The aims are to enable students to:

- develop their mathematical knowledge and skills in a way which encourages confidence and provides satisfaction and enjoyment
- develop an understanding of mathematical principles and an appreciation of mathematics as a logical and coherent subject
- acquire a range of mathematical skills, particularly those which will enable them to use applications of mathematics in the context of everyday situations and of other subjects they may be studying
- develop the ability to analyse problems logically
- recognise when and how a situation may be represented mathematically, identify and interpret relevant factors and select an appropriate mathematical method to solve the problem
- use mathematics as a means of communication with emphasis on the use of clear expression
- acquire the mathematical background necessary for further study in mathematics or related subjects.

## **Biology (9700)**

Cambridge International AS and A Level Biology builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, some current applications of biology, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination.

The emphasis throughout is on the understanding of concepts and the application of biology ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS and A Level Biology is ideal for learners who want to study biology or a wide variety of related subjects at university or to follow a career in science.

## **Aims**

The aims are to enable students to:

- acquire knowledge and understanding and develop practical skills, including efficient, accurate and safe scientific practices
- learn to apply the scientific method, while developing an awareness of the limitations of scientific theories and models
- develop skills in data analysis, evaluation and drawing conclusions, cultivating attitudes relevant to science such as objectivity, integrity, enquiry, initiative and inventiveness
- develop effective scientific communication skills, using appropriate terminology and scientific conventions
- understand their responsibility to others/society and to care for the environment
- enjoy science and develop an informed interest in the subject that may lead to further study.

## **Chemistry (9701)**

Cambridge International AS and A Level Chemistry builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, some current applications of chemistry, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination.

The emphasis throughout is on the understanding of concepts and the application of chemistry ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS and A Level Chemistry is ideal for learners who want to study chemistry or a wide variety of related subjects at university or to follow a career in science.

## **Aims**

The aims are to enable students to:

- acquire knowledge and understanding and develop practical skills, including efficient, accurate and safe scientific practices
- learn to apply the scientific method, while developing an awareness of the limitations of scientific theories and models
- develop skills in data analysis, evaluation and drawing conclusions, cultivating attitudes relevant to science such as objectivity, integrity, enquiry, initiative and inventiveness
- develop effective scientific communication skills, using appropriate terminology and scientific conventions
- understand their responsibility to others/society and to care for the environment
- enjoy science and develop an informed interest in the subject that may lead to further study.

## **Business (9609)**

The syllabus enables students to understand and appreciate the nature and scope of business, and the role it plays in society. It encourages students to examine the process of decision-making in a dynamic and changing business environment and to develop critical understanding of business organisations. They learn about business and its environment, human resource management, marketing, operations management and finance and accounting. At Cambridge International A Level, students also learn how to develop a business strategy.

## **Aims**

The aims are to enable students to:

- understand and appreciate the role of enterprise and the contribution of business to society – locally, nationally and internationally
- develop critical understanding of business organisations, the markets they serve and the process of adding value
- evaluate business behaviour from the perspective of a range of stakeholders and consider their relative influence on business organisations
- develop an awareness of the political, economic, social, technological, legal, environmental and ethical issues that influence or may be influenced by business activity
- apply quantitative, problem-solving, decision-making and communication skills
- develop skills and knowledge needed for further study or employment in business.

## **Computer Science (9618)**

Cambridge International AS & A Level Computer Science encourages learners to meet the needs of higher education courses in computer science as well as twenty-first century digital employers. It encourages learners to think creatively, through applying practical programming solutions, demonstrating that they are effective users of technology.

Learners develop computational thinking & programming skills to solve computer science problems. Cambridge International AS and A Level Computer Science will help learners develop a range of skills such as thinking creatively, analytically, logically and critically. They will also be able to appreciate the ethical issues that arise with current and emerging computing technologies.

### **Aims**

The aims are to enable students to develop:

- computational thinking skills
- an understanding of the main principles of solving problems using computers
- an understanding of the component parts of computer systems and how they interrelate, including software, data, hardware, communication and people
- an understanding of the different methods of communication and the functionality of networks and the internet
- the skills necessary to apply this understanding to develop computer based solutions to problems.

## **Economics (9708)**

Students learn how to explain and analyse economic issues and arguments, evaluate economic information, and organise, present and communicate ideas and judgements clearly.

The syllabus covers a range of fundamental economic ideas, including an introduction to the price system and government intervention, international trade and exchange rates, the measurement of employment and inflation, and the causes and consequences of inflation. Students also study the theory of the firm, market failure, macroeconomic theory and policy, and economic growth and development.

### **Aims**

The aims are to enable students to:

- know and understand the terminology, concepts, theories and principles of economics
- express ideas in writing and using statistics and diagrams, or other methods, where appropriate
- develop the habit of using works of reference as sources of information specific to economics
- read critically to gain information about the changes in the wider economic and social environment
- appreciate the methods of study that economists use, and the most effective ways economic information may be analysed, correlated, discussed, evaluated and presented
- develop an interest in and enthusiasm for economics that could lead to further study.

## **Physics (9702)**

Cambridge International AS and A Level Physics builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, some current applications of physics, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination.

The emphasis throughout is on the understanding of concepts and the application of physics ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS and A Level Physics is ideal for learners who want to study physics or a wide variety of related subjects at university or to follow a career in science.

## **Aims**

The aims are to enable students to:

- acquire knowledge and understanding and develop practical skills, including efficient, accurate and safe scientific practices
- learn to apply the scientific method, while developing an awareness of the limitations of scientific theories and models
- develop skills in data analysis, evaluation and drawing conclusions, cultivating attitudes relevant to science such as objectivity, integrity, enquiry, initiative and inventiveness
- develop effective scientific communication skills, using appropriate terminology and scientific conventions
- understand their responsibility to others/society and to care for the environment
- enjoy science and develop an informed interest in the subject that may lead to further study.

## **Psychology (9990)**

Cambridge International AS & A Level Psychology is designed to give students an understanding of psychological concepts, theories and research methodology.

### **The syllabus:**

- is suitable for students who have no prior learning in psychology
- engages with four core areas of psychology: biological, cognitive, social and learning
- allows students to deepen their knowledge through a choice of two options at Cambridge International A Level from clinical psychology, consumer psychology, health psychology or organisational psychology
- encourages students to consider the relationships between psychological findings and everyday life.

### **Aims**

The aims are to enable students to develop:

- knowledge and understanding of psychological concepts, theories and research findings
- an understanding of psychological approaches, issues and debates and research methodology
- an awareness of the scientific method and range and limitations of psychological theory and practice
- improved skills in data analysis, evaluation and drawing conclusions
- an awareness of the relationships between psychological findings and everyday life
- an understanding of ethical issues in psychology
- an appreciation and understanding of individual, social and cultural diversity.

## **Accounting (9706)**

The syllabus engages students with the relevance and applicability of accounting in real-world contexts. Students will explore the role and responsibilities of the accountant, and study areas such as financial accounting and cost and management accounting.

Studying this subject helps students to understand, apply, analyse and evaluate accounting information to help decision-making in business and communicate information to stakeholders. These transferable skills are an ideal foundation for further study and a career within accounting or related professions.

### **Aims**

The aims are to enable students to:

- understand the role of accounting as an information system for monitoring, problem-solving and decision-making
- appreciate the ethical issues that underpin the practice of accounting and their impact on the behaviour of the accountant and of businesses
- appreciate the place of accounting in managing business change in response to economic, social and technological developments
- develop the ability to apply and evaluate accounting concepts, principles, policies and practices
- develop skills of communication, analysis, interpretation and presentation of both qualitative and quantitative accounting information
- develop skills and knowledge needed for further study or employment in accounting or business.

## **English Language (9093)**

Cambridge International AS and A Level English Language provides learners with the opportunity to study English language and its use in communication. Learners will be encouraged to respond critically to a wide variety of texts in a range of forms, styles and contexts, and to promote skills of communication, reading, research and analysis. Through their study, learners will develop an ability to read and analyse material, gaining further knowledge and understanding of English language features and issues. Learners will also develop the skills of writing clearly, accurately, creatively and effectively for different purposes and audiences.

### **Aims**

The aims are to enable students to:

- enjoy the experience of studying English language
- develop a critical and informed response to texts in a range of forms, styles and contexts, produced for a variety of audiences
- communicate effectively, creatively, accurately and appropriately in their writing
- develop the interdependent skills of reading, analysis and research
- develop an appreciation of concepts and techniques in the study of English language
- build a firm foundation for further study of language and linguistics.