# Kinabalu International School

## A Level subject Information

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Information and Communication Technology</td>
<td>2</td>
</tr>
<tr>
<td>Art</td>
<td>3</td>
</tr>
<tr>
<td>Biology</td>
<td>4</td>
</tr>
<tr>
<td>Business Studies</td>
<td>5</td>
</tr>
<tr>
<td>Chemistry</td>
<td>6</td>
</tr>
<tr>
<td>English AS</td>
<td>7</td>
</tr>
<tr>
<td>Geography</td>
<td>8</td>
</tr>
<tr>
<td>History</td>
<td>9</td>
</tr>
<tr>
<td>Literature in English</td>
<td>10</td>
</tr>
<tr>
<td>Mathematics</td>
<td>11</td>
</tr>
<tr>
<td>Physics</td>
<td>12</td>
</tr>
</tbody>
</table>
AS and A Level Applied Information and Communication Technology

Students following this syllabus will develop, and learn to apply, a broad range of ICT skills, whilst also gaining an understanding of the way ICT is used in the world of work. The syllabus introduces students to the structure and use of ICT systems within a wide range of organisations, including the use of a variety of computer networks. As a result, students learn about ICT system life cycles, and how these affect the workplace. They also gain an understanding of the wider impact of ICT on society in general.

Assessment:

At AS Level, candidates should be able to demonstrate knowledge and understanding of:
• the functions and uses of the main hardware and software components of ICT systems, including portable communication systems;
• the ways in which organisations use ICT;
• the impact on society of the use of ICT in the home;
• the stages of the systems life cycle and the methods used within each of these stages;
• ICT and computing terminology.

At A Level, candidates should be able to demonstrate all the knowledge and understanding from AS Level, and extend their knowledge and understanding of:
• the ways in which a wide range of organisations use ICT;
• the impact on society of the use of a wide range of online applications;
• the networking of information-processing systems and the use of online services.

Students take a combination of practical and written examinations.

Entry Requirements:

Candidates beginning this course are not expected to have formally studied Applied Information and Communication previously, but must have at least basic skills in using word processing and presentation software.

Progression

ICT specific careers include: computer games designer, computer games technical support, hardware engineer, computer programmer, web designer, network manager, systems analyst, technical support person, telecommunications technician.
AS and A Level Art and Design

The Art and Design syllabus considers expression and communication. Students learn about visual perception and aesthetic experience, and the ways in which art and design creates a language of its own. Most of the work for this syllabus is practical or studio based, so that students can develop their abilities of observation and analysis of the visual world, sensitivity, skill, personal expression and imagination. They also learn how to relate their skills to an enhanced knowledge of their own cultures, past and present, as well as an appreciation of practical design problems.

Assessment

There are 4 components to the assessment of this subject:
A  Personal Qualities: controlled test
B  Manipulative, Artistic and Analytical Skills: coursework
C  Aesthetic Qualities: coursework
D  Knowledge and Critical Understanding: personal study

Assessment Objectives
By the end of the course students should be able to show:

A) Personal Qualities
  • an individual, sensitive and creative response to a stimulus; ability to develop an idea, theme or subject
  • independence in concept and execution.
B) Manipulative, Artistic and Analytical Skills
  • select and control materials, processes and techniques in an informed and disciplined way to meet an objective
  • select and record analytically from direct observation and personal experience.
C) Aesthetic Qualities
  • use and compose formal elements (contour, shape, colour/tone, texture, structure and the relationships between form and space) as appropriate.
D) Knowledge and Critical Understanding
  • select and communicate information relevant to an idea, subject or theme and evaluate this in a systematic way
  • make critical judgments and use personal ideas and images to show they are developing appreciation and cultural awareness.

Entry Requirements:

Candidates who are beginning this course should have previously completed an GCE O Level, IGCSE, GCSE, SPM or equivalent course in Art or Art and Design, and have gained the equivalent of a C grade.

Progression

Students who go on to study Arts related courses at university or college will find Art A Level very useful. Future careers might include fashion design, architecture, museum and heritage conservation and teaching.
AS and A Level Biology

A and AS Level Biology builds on the skills acquired at IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, a section on 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 biological ideas in novel contexts as well as on the acquisition of knowledge. The course will foster creative thinking and problem-solving skills which are transferable to any future career path, and A and AS Level Biology is ideal for students who want to study biology or a wide variety of related subjects at university or to follow a career in science.

Assessment:

Candidates for AS certification take 3 examination papers at the end of year 12. Those taking the full A level take 5 papers at the end of year 13.

Paper 1 - Multiple Choice          Paper 2 - AS Structured Questions   Paper 3 - Advanced Practical Skills
Paper 4 - A2 Structured Questions       Paper 5 - Planning, Analysis and Evaluation

Assessment objectives:

The three assessment objectives in Cambridge International A & AS Level Biology are:

A: Knowledge with understanding
B: Handling information and solving problems
C: Experimental skills and investigations.

By the end of the course students should be able to show knowledge and understanding of:

Knowledge with understanding

• scientific phenomena, facts, laws, definitions, concepts and theories
• scientific vocabulary, terminology and conventions (including symbols, quantities and units)

Handling information and solving problems

• locate, select, organise and present information from a variety of sources
• translate information from one form to another
• manipulate numerical and other data

Experimental skills and investigations

• follow a detailed set or sequence of instructions;
• use techniques, apparatus, measuring devices and materials safely and effectively; make and record observations, measurements and estimates, with appropriate regard to precision, accuracy and units

Entry Requirements:

Candidates who are beginning this course should have previously completed an O Level, IGCSE, GCSE, or SPM course, or equivalent curriculum, in Biology or in Coordinated Science, and have gained a Grade B or equivalent.

Progression

Students who study A Level Biology sometimes opt to study medically related courses at university and progress into careers as doctors, dentists or vets for example. Some move into science based careers such as genetics, biotechnical and laboratory work. Many progress into non-biological courses and careers [e.g. Law] but find the skills developed in their biological studies are directly transferable.
AS and A Level Business Studies

The Business Studies syllabus enables students to understand and appreciate the nature and scope of business, and the role it plays in society. The syllabus covers economic, environmental, ethical, governmental, legal, social and technological issues, and encourages a critical understanding of organisations, the markets they serve and the process of adding value. Students examine the management of organisations and, in particular, the process of decision-making in a dynamic external environment.

Assessment:

Candidates are expected to demonstrate the following skills:

Knowledge and critical understanding of the specified content.

Application of this knowledge and understanding to problems and issues which are from both familiar and unfamiliar situations.

Analysis of problems, issues and situations by
• distinguishing between statements of fact, statements of value and hypothetical statements
• making valid inferences from material presented
• examining the implications of a hypothesis
• organising ideas
• making valid generalisations.

Evaluation of reliability of material, checking that conclusions drawn are consistent with given information and discriminating between alternative explanations, and assessing the role of the main concepts and models in business analysis.

Topics covered are:
1. Business and its environment
2. People in organizations
3. Marketing
4. Operations and project management
5. Finance and accounting
6. Strategic management

Entry Requirements:
Candidates beginning this course are not expected to have studied Business Studies previously, but will need to be able to prove a solid academic background that meets the basic entry requirements to the Sixth Form.

Progression
Cambridge International A Level Business Studies provides a suitable foundation for the study of Business Studies or related courses in higher education. Careers in business include:

- Advertising Account Executive
- Banker
- Buyer, Industrial/Retail
- Company Secretary
- Commodity/Futures Broker
- Distribution/Logistics Manager
- Insurance Underwriter
AS and A Level Chemistry

A and AS Level Chemistry builds on the skills acquired at IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, a section on 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 will foster creative thinking and problem-solving skills which are transferable to any future career path, and A and AS Level Chemistry are ideal for students who want to study chemistry or a wide variety of related subjects at university or to follow a career in science.

Assessment

There are 5 examinations. Candidates for AS Level take papers 1, 2 and 3 only. Candidates for A level take all 5 papers:

1. Multiple Choice
2. AS Structured Questions
3. Advanced Practical Skills
4. A2 Structured Questions
5. Planning, Analysis and Evaluation

Assessment objectives

A full list of assessment objectives is available in the syllabus on the Cambridge website. What follows is an edited list:

A) Knowledge with understanding
Candidates should be able to demonstrate knowledge with understanding in relation to:
- scientific phenomena, facts, laws, definitions, concepts, theories
- scientific vocabulary, terminology, conventions (including symbols, quantities and units)
- scientific instruments and apparatus, including techniques of operation and aspects of safety

B) Handling, applying and evaluating information
Candidates should be able – in words or by using symbolic, graphical and numerical forms of presentation – to:
- locate, select, organise and present information from a variety of sources
- handle information, distinguishing the relevant from the extraneous
- manipulate numerical and other data and translate information from one form to another

C) Experimental skills and investigations
Candidates should be able to:
- plan investigations
- use techniques, apparatus and materials

Entry Requirements
Candidates who are beginning this course should have previously completed a GCE O Level, GCSE, IGCSE or SPM course, or equivalent, in Chemistry or in Co-ordinated Science [Double Award] at grade B or above.

Progression
Those who have Pharmacy, Veterinary Science, Chemistry, Biochemistry, Food Science/Nutrition, Forensic Science, Biological or Engineering Careers in mind will find A level Chemistry essential. Students wishing to study Medicine must have studied Chemistry at A Level.
AS Level English

AS English is designed for students who can already communicate effectively in English whether it be their mother tongue or additional language. The syllabus enables students to achieve greater fluency, accuracy and confidence in the language as it is spoken and written, thereby also improving their communication skills. Students will learn how to improve their use of English in a variety of situations, understanding how to read texts and other source materials, and how to extract information, initiate discussions and respond to questions both orally and in writing.

Assessment:

Assessment objectives
By the end of the course candidates must be able to demonstrate:

- The ability to read written material in a variety of forms, and to comment on its effectiveness
- A knowledge and understanding of the features of English language
- The ability to write clearly, accurately and effectively for a particular purpose or audience.

There are 2 examination papers:

Paper 1 – Passages for Comment
Candidates answer two out of three questions. Questions carry equal marks.
Each question is based on a passage, or passages, of text printed in the question paper. These are taken from a balanced range of sources, and include informative and narrative writing in a wide variety of styles.

Paper 2 – Composition
The paper is divided into two sections:
Section A: Narrative/Descriptive/Imaginative Writing
Section B: Discursive/Argumentative Writing.

Entry Requirements:

Candidates who are beginning this course should have previously completed a GCE O Level, GCSE, IGCSE course or SPM [or equivalent] in English Language, and have gained a grade C or above.

Progression
AS Level in English provides evidence of advanced English language skills and will be a useful addition to 3 A Levels in any course of study and with any university or career in mind.
AS and A Level Geography

The Geography syllabus builds upon skills gained at IGCSE (or equivalent) level study. Students widen their knowledge and understanding of the subject, while developing their investigative abilities and their evaluation and decision-making skills. The syllabus is wide-ranging and comprises a variety of options. For example, students can learn more about topics such as hydrology and fluvial geomorphology, atmosphere and weather, rocks and weathering, population change and settlement dynamics. The syllabus considers a range of environments, from tropical to arid, and students can also study subjects such as environmental management, global interdependence and economic transition. Field trips are an integral part of the course.

Assessment
By the end of the course students should be able to:

Knowledge
• give definitions and explanations of relevant geographical terms and concepts
• show working knowledge of relevant principles, theories and models
• recall accurately the location and character of chosen places and environments
• show knowledge of the physical and human processes at work.

Understanding and application
• understand the complex and interactive nature of physical and human environments
• understand how processes bring changes in systems, distributions and environments
• recognise the distinctiveness and the generality of places and environments
• recognise the significance of spatial scale and of time scale
• apply this geographical understanding to new contexts.

Skills and enquiry
• collect, record and interpret a variety of information from primary (fieldwork) sources and secondary sources (e.g. statistical data)
• interpret a range of map and diagram techniques displaying geographical information
• assess methods of enquiry and consider the limitations of evidence
• demonstrate skills of analysis and synthesis
• use geographical understanding to develop their own explanations and hypotheses.

Evaluation and decision-making
• assess the effects of geographical processes and change on physical and human environments
• consider the relative success or failure of initiatives and demonstrate a sense of judgement
• analyse the viewpoints of different groups of people and identify conflicts of interest
• assess the decision-making process in physical and human contexts
• recognise a number of possible outcomes from a given situation.

Students are examined in 3 papers. AS candidates take paper 1. A Level candidates take papers 1, 2 & 3

Entry Requirements:
Candidates who are beginning this course should have previously completed a GCE O Level, GCSE, IGCSE or SPM course in Geography or the equivalent, and been awarded a grade C or above. Candidates who have not previously studied this subject may be permitted to take this course, depending upon their academic profile.

Progression
Cambridge International A Level Geography provides a suitable foundation for the study of Geography or related courses in higher education. It is also suitable for candidates intending to pursue careers or further study in Planning, Environmental Subjects and Development and Tourism.
AS and A Level History

The A and AS Level History syllabus builds upon skills gained at IGCSE (or equivalent) level study. The emphasis is again on both historical knowledge and on the skills required for historical research. Students learn about cause and effect, continuity and change, similarity and difference, and use historical evidence as part of their studies. The flexible and wide-ranging syllabus covers six periods, ranging from the history of the Caribbean from 1794 to 1900, to international history from 1945 to 1991. Students can also study periods from European, Asian, African and American history. The school will decide which periods to focus on, allowing us to build a course that reflects student interest and staff specialisms, and one that is relevant to the local or regional context.

Assessment:

Topics for assessment may include:

- Modern European History, 1789–1939
- Southeast Asia: from Colonies to Nations, 1870–1980
- International History, 1945–91

Assessment is in the form of written examinations:

Paper 1
Section A: Candidates answer one compulsory source-based question
Section B: Candidates answer three essay questions from a choice of seven

Paper 4
Candidates answer four essay questions from a choice of ten. There is no source-based question.

Assessment objectives
By the end of the course students should be able to:
1: demonstrate an understanding of the complexity of issues and themes within a historical period
2: distinguish and assess different approaches to, interpretations of, and opinions about the past
3: express awareness of historical concepts such as change and continuity, cause and effect
4: present a clear, concise, logical and relevant argument
5: evaluate and interpret source materials as historical evidence and use them effectively.

Entry Requirements:

Candidates who are beginning this course should have previously completed a GCE O Level, IGCSE, GCSE or SPM course in History or the equivalent, and have achieved a B Grade or above.

Progression
Cambridge International A Level History provides a suitable foundation for the study of History or related courses in higher education. It is also suitable for candidates intending to pursue careers or further study in Arts, Humanities and Social Science related areas (such as Law).
AS and A Level Literature in English

AS English Literature is designed for students who can already communicate effectively in English whether it be their mother tongue or additional language. The syllabus aims to develop an appreciation of different texts from a range of periods and cultures. Students will practice and develop the interconnecting skills of reading, analysis and communication, and will develop wider reading which will contribute to personal development. Students of literature are exposed to important themes and ideas and develop confidence in dealing with these.

Assessment

AS Level candidates take 2 examinations: Poetry and Prose and Drama

A Level candidates take Poetry and Prose, Drama and Shakespeare and other pre-20th century texts and either 20th Century Writing or Comment and Appreciation or Coursework.

Assessment objectives

Candidates must demonstrate:

- The ability to respond to texts in the three main forms (Prose, Poetry and Drama) of different types and from different cultures
- An understanding of the ways in which writers’ choices of form, structure and language shape meaning
- The ability to produce informed, independent opinions and judgments on literary texts.
- The ability to communicate clearly the knowledge, understanding and insight appropriate for literary study
- The ability to appreciate and discuss varying opinions of literary works [A Level only].

Entry Requirements:

Candidates who are beginning this course should have previously completed a GCE O Level, GCSE, IGCSE, SPM course [or equivalent] in English Literature, and have gained a grade B or above.

Progression

A Level Literature in English prepares students for a university course which may be in English Literature or may be paired with another arts subject, for example History. Students who take A Level Literature find that it is an excellent preparation for careers in the Media [publishing, journalism, advertising etc], business, administration and teaching. A Level Literature teaches indispensable skills that are recognised by employers who put a high value on people who can construct a clearly expressed argument, present ideas concisely, logically and clearly and who can make a critical analysis of a piece of writing.
AS and A Level Mathematics

Cambridge International A & AS Level Mathematics is accepted by universities and employers as proof of mathematical knowledge and understanding. Successful candidates gain lifelong skills, including a deeper understanding of mathematical principles and their application to everyday situations and their relevance to other subjects that you may be studying. Mathematics develops the ability to analyse problems logically, use mathematics as a means of communication, and is a solid foundation for further study.

Assessment:

The 7 units in the scheme cover the following subject areas:
• Pure Mathematics
• Mechanics
• Probability and Statistics

Candidates sit a specified number of examinations depending upon their choice of AS or A level.

The abilities assessed in the examinations cover a single area: technique with application.

The examination will test the ability of candidates to:
• understand relevant mathematical concepts, terminology and notation
• recall accurately and use successfully appropriate manipulative techniques
• recognise the appropriate mathematical procedure for a given situation
• apply combinations of mathematical skills and techniques in solving problems
• present mathematical work, and communicate conclusions, in a clear and logical way.

Entry Requirements:

Candidates who are beginning this course should have previously completed a GCE O Level, IGCSE, GCSE or SPM course, or the equivalent, in Mathematics, and must have achieved a minimum of Grade B.

Progression

Mathematics A-level would be useful for courses and careers in Mathematics, Engineering and in most areas of Physics, Computing, Accountancy, Economics, Business, Banking, Air Traffic Control, Retail Management, Architecture, Surveying, and Psychology. Students hoping to study medicine will need Mathematics A Level.
AS and A Level Physics

A and AS Level Physics builds on the skills acquired at IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, a section on some current applications of physics, and a strong emphasis on advanced practical skills. The emphasis throughout is on the understanding of concepts and the application of physics ideas in new situations as well as on the acquisition of knowledge.

Assessment:

There are 5 examination papers. Candidates for Advanced Subsidiary (AS) certification will take Papers 1, 2 and 3, and candidates for A Level will take all 5 examinations:

1 Multiple Choice
2 AS Structured Questions
3 Advanced Practical Skills
4 A2 Structured Questions
5 Planning, Analysis and Evaluation

A full list of assessment objectives is available in the syllabus on the Cambridge website. What follows is an edited list:

A Knowledge with understanding
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- scientific vocabulary, terminology and conventions (including symbols, quantities and units)
- scientific instruments and apparatus, including techniques of operation and aspects of safety

B Handling, applying and evaluating information
Candidates should be able (in words or by using symbolic, graphical and numerical forms of presentation) to:
- locate, select, organise and present information from a variety of sources
- translate information from one form to another
- manipulate numerical and other data
- use information to identify patterns, report trends, draw inferences and report conclusions

C Experimental skills and investigations
Candidates should be able to:
- follow a detailed set or sequence of instructions and use techniques, apparatus and materials safely
- make observations and measurements with due regard for precision and accuracy
- interpret and evaluate observations and experimental data

Entry Requirements:
Candidates accepted onto this course should have previously completed a GCE O Level, GCSE, IGCSE or SPM course, or the equivalent, in Physics or in Co-ordinated Science [Double Award], and should have achieved a minimum B grade.

Progression
The course will foster creative thinking and problem-solving skills which are transferable to any future career path, and A and AS Level Physics are ideal for students who want to study physics or a wide variety of related subjects at university or to follow a career in science. Examples of these are: clinical scientist, mechanical engineer, sound engineer and renewable energy manager.