

6 Tampines St 92, Yo:Ha@Tampines, #01-04 Singapore 528893 Telephone: 67455568 I Email: enquiry@vwa.edu.sg

### PREPARATORY COURSE FOR CAMBRIDGE INTERNATIONAL A-LEVEL COURSE SYNOPSIS

### ENGLISH GENERAL PAPER

#### Students will be able to:

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

### MATHEMATICS

#### Students will be able to:

- develop their mathematical knowledge and skills in a way which encourages confidence and provides satisfaction and enjoyment
- b) 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
- d) 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
- f) use mathematics as a means of communication with emphasis on the use of clear expression
- g) acquire the mathematical background necessary for further study in mathematics or related subjects.

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### PREPARATORY COURSE FOR CAMBRIDGE INTERNATIONAL A-LEVEL COURSE SYNOPSIS

## CHEMISTRY

#### Students will be able to:

- a) Provide, through well-designed studies of experimental and practical chemistry, a worthwhile educational experience for all learners, whether or not they go on to study science beyond this level. In particular, it should enable them to:
  - i. become confident citizens in a technological world, with an informed interest in scientific matters
  - ii. recognise the usefulness, and limitations, of scientific method and appreciate its applicability nother disciplines and in everyday life
  - iii. be suitably prepared for employment and/or further studies beyond Cambridge International A Level, in Chemistry
- b) Develop abilities and skills that
  - i. are relevant to the study and practice of science
  - ii. are useful in everyday life
  - iii. encourage efficient and safe practice
  - iv. encourage the presentation of information and ideas appropriate for different audiences and purposes
  - v. develop self-motivation and the ability to work in a sustained fashion
- c) Develop attitudes relevant to biological science such as a concern for accuracy and precision, objectivity, integrity, a spirit of enquiry, initiative and insight
- d) Stimulate interest in, and care for, the environment.
- e) Promote an awareness that:
  - i. the study and practice of science are co-operative and cumulative activities, and are subject to social, economic, technological, ethical and cultural influences and limitations
  - ii. the applications of Chemistry may be both beneficial and detrimental to the individual, the community and the environment.
  - iii. The use of information technology is important for communication, as an aid to experiments and as a tool for interpreting experimental and theoretical results.
- f) Stimulate learners and create a sustained interest in biology so that the study of the subject is enjoyable and satisfying.

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### PREPARATORY COURSE FOR CAMBRIDGE INTERNATIONAL A-LEVEL COURSE SYNOPSIS

# PHYSICS

The aims are to enable students to:

- a) Provide, through well-designed studies of experimental and practical science, a worthwhile educational experience for all learners, whether or not they go on to study science beyond this level. It should enable them to:
  - become confident citizens in a technological world, with an informed interest in scientific matters
  - recognise the usefulness, and limitations, of scientific method and its application in other subjects and in everyday life
  - be suitably prepared for studies in biological science beyond Cambridge International A Level, in further or higher education, and for professional courses.
- b) Develop abilities and skills that:
  - are relevant to the study and practice of science
  - are useful in everyday life
  - encourage efficient and safe practice
  - encourage effective communication.
- c) Develop attitudes relevant to science such as:
  - a concern for accuracy and precision
  - objectivity
  - integrity
  - a spirit of enquiry
  - initiative
  - inventiveness.
- d) Stimulate interest in, and care for, the environment.
- e) Promote an awareness that:
  - the study and practice of science are co-operative and cumulative activities, and are subject to social, economic, technological, ethical and cultural influences and limitations
  - that the applications of physics may be both beneficial and detrimental to the individual, the community and the environment
  - of the importance of the use of IT for communication, as an aid to experiments and as a tool for the interpretation of experimental and theoretical results.
- f) Stimulate learners and create a sustained interest in physics so that the study of the subject is enjoyable and satisfying.

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### PREPARATORY COURSE FOR CAMBRIDGE INTERNATIONAL A-LEVEL COURSE SYNOPSIS

#### **FURTHER MATHEMATICS**

#### The aims are to enable students to:

- a) further develop their mathematical knowledge and skills in a way which encourages confidence and provides satisfaction and enjoyment
- b) develop a greater understanding of mathematical principles and a further appreciation of mathematics as a logical and coherent subject
- acquire a greater 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
- d) further develop the ability to analyse problems logically
- e) 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
- f) use mathematics fluently as a means of communication with emphasis on the use of clear expression
- g) acquire the mathematical background necessary for further study in mathematics or related subjects

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### PREPARATORY COURSE FOR CAMBRIDGE INTERNATIONAL A-LEVEL COURSE SYNOPSIS

# BIOLOGY

The aims are to enable students to:

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

# ECONOMICS

The aims are to enable students to develop:

- a) an understanding of the factual knowledge of economics
- b) a facility for self-expression, not only in writing but also in using additional aids, such as statistics and diagrams, where appropriate
- c) the habit of using works of reference as sources of data specific to economics
- d) the habit of reading critically to gain information about the changing economy we live in
- e) an appreciation of the methods of study used by the economist, and of the most effective ways
- f) economic data may be analysed, correlated, discussed and presented

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#### GLOBAL PERSPECTIVE AND RESEARCH

The syllabus aims to encourage learners to develop by:

- a) providing opportunities to acquire disciplined and scholarly research skills
- b) promoting a critical, questioning approach to information using the language of reasoning
- c) prompting self-reflection and independence of thought
- d) creating opportunities to understand and engage with key global issues wherever they live and work
- e) nurturing an awareness and understanding of, and respect for, the diversity of perspectives on global issues
- f) offering an interdisciplinary approach to global issues
- g) encouraging development of independent learning skills in preparation for study in higher education and lifelong learning
- h) promoting an understanding of appropriate research skills
- i) engaging in the research process on an academic topic of their own choice which reflects their interest
- j) providing opportunities for the exercise of the higher-order thinking skills of analysis, synthesis and evaluation
- k) providing opportunities to develop oral presentation and communication skills.

### BUSINESS

The syllabus aims to enable candidates to:

- a) understand and appreciate the nature and scope of business, and the role of business in society, internationally and within each candidate's own country
- b) develop critical understanding of organisations, the markets they serve and the process of adding value
- c) evaluate business behaviour from the perspective of a range of stakeholders including owner/ shareholder, manager, employee, customer, supplier, lender and government
- d) develop an awareness of the political, economic, social, technological, legal, environmental and ethical issues associated with business activity
- e) develop quantitative, problem-solving, decision-making and communication skills

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# ACCOUNTING The syllabus aims to enable candidates to: a) develop an ability to apply accounting concepts, principles and practices b) understand the role of accounting as an information system for monitoring, problem-solving

- and decisionc) making and the place of accounting in changing economic, social and technological environments
- d) develop a critical and analytical approach to examining and evaluating accounting policies and practices
- e) develop skills of communication, analysis, interpretation and presentation of both qualitative and quantitative accounting information

CHINECE	
CHINESE	

Cambridge International AS and A Level syllabuses in languages other than English aim to:

- a) develop the ability to understand a language from a variety of registers
- b) enable students to communicate confidently and clearly in the target language
- c) form a sound base of skills, language and attitudes required for further study, work, and leisure
- d) develop insights into the culture and civilisation of the countries where the language is spoken, including the study of literary texts where appropriate (this does not apply to AS Language qualifications)
- e) encourage positive attitudes to language learning and a sympathetic approach to other cultures and civilisations
- f) support intellectual and personal development by promoting learning and social skills.

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#### PREPARATORY COURSE FOR CAMBRIDGE INTERNATIONAL A-LEVEL

COURSE SYNOPSIS	
COMPUTER SCIENCE	

The syllabus aims to enable students to develop:

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

Please refer to Cambridge Assessment International Education Official Website <a href="https://www.cambridgeinternational.org/programmes-and-qualifications/cambridge-advanced/cambridge-international-as-and-a-levels/">https://www.cambridgeinternational.org/programmes-and-qualifications/cambridge-advanced/cambridge-international-as-and-a-levels/</a>) for subject details.

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