

# PREPARATORY COURSE FOR SINGAPORE-CAMBRIDGE GENERAL CERTIFICATE OF EDUCATION 'O' LEVEL EXAMINATION

(2018 EXAMINATION)

## Synopsis

### 1. English Language (Syllabus 1128)

#### Learning Outcomes:

Students will be able to communicate effectively in English as a result of their development in the following areas:

- Listen, read and view critically and with accuracy, understanding and appreciation, a wide range of literary and informational/functional texts from print and non-print sources.
- Speak, write and represent in internationally acceptable English (Standard English) that is grammatical, fluent, mutually intelligible and appropriate for different purposes, audiences, contexts and cultures.
- Understand and use internationally acceptable English (Standard English) grammar and vocabulary accurately and appropriately as well as understand how speakers/writers put words together and use language to communicate meaning and achieve impact.
- Interact effectively with people from their own or different cultures.

### 2. Mathematics (Syllabus 4016)

#### Learning Outcomes:

Students will be equipped with the fundamental mathematical knowledge and skills.

The general aims are to enable students to:

- acquire the necessary mathematical concepts and skills for continuous learning in mathematics and related disciplines, and for applications to the real world;
- develop the necessary process skills for the acquisition and application of mathematical concepts and skills;
- develop the mathematical thinking and problem solving skills and apply these skills to formulate and solve problems;
- recognise and use connections among mathematical ideas, and between mathematics and other disciplines;
- develop positive attitudes towards mathematics;
- make effective use of a variety of mathematical tools (including information and communication technology tools) in the learning and application of mathematics;
- produce imaginative and creative work arising from mathematical ideas;
- develop the abilities to reason logically, to communicate mathematically, and to learn cooperatively and independently.

### 3. Additional Mathematics (Syllabus 4047)

#### Learning Outcomes:

The Additional Mathematics syllabus aims to enable students who have an aptitude and interest in mathematics to:

- acquire mathematical concepts and skills for higher studies in mathematics and to support learning in the other subjects, in particular, the sciences;
- develop thinking, reasoning and metacognitive skills through a mathematical approach to problem- solving;
- connect ideas within mathematics and between mathematics and the sciences through applications of mathematics;
- appreciate the abstract nature and power of mathematics.

### 4. Physics (Syllabus 6091)

#### Learning Outcomes:

Students will be able to :

- provide, through well-designed studies of experimental and practical Physics, a worthwhile educational experience for all students, whether or not they go on to study science beyond this level and, in particular, to enable them to acquire sufficient understanding and knowledge to become confident citizens in a technological world, able to take or develop an informed interest in matters of scientific import;
- recognise the usefulness, and limitations, of scientific method and to appreciate its applicability in other disciplines and in everyday life; be suitably prepared and stimulated for studies beyond Ordinary level in Physics, in applied sciences or in science-related courses.
- 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.
- develop attitudes relevant to science such as
  - concern for accuracy and precision;
  - objectivity;
  - integrity;
  - enquiry;
  - initiative;
  - inventiveness.
- stimulate interest in and care for the local and global environment.
- 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;
- the applications of sciences may be both beneficial and detrimental to the individual, the community and the environment;
- science transcends national boundaries and that the language of science, correctly and rigorously applied, is universal;
- the use of information technology (IT) is important for communications, as an aid to experiments and as a tool for the interpretation of experimental and theoretical results.

## 5. Chemistry (Syllabus 6092)

### Learning Outcomes:

Students will be able to :

- provide, through well designed studies of experimental and practical chemistry, a worthwhile educational experience for all students, whether or not they go on to study science beyond this level and, in particular, to enable them to acquire sufficient understanding and knowledge to
  - become confident citizens in a technological world, able to take or develop an informed interest in matters of scientific import;
  - recognise the usefulness, and limitations, of scientific method and to appreciate its applicability in other disciplines and in everyday life;
  - be suitably prepared and stimulated for studies beyond Ordinary level in chemistry, in applied sciences or in science-dependent vocational courses.
- 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.
- develop attitudes relevant to science such as
- accuracy and precision;
  - objectivity;
  - integrity;
  - enquiry;
  - initiative;
  - inventiveness.
- stimulate interest in and care for the environment.
- 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;
- the applications of sciences may be both beneficial and detrimental to the individual, the community and the environment;
- science transcends national boundaries and that the language of science, correctly and rigorously applied, is universal;
- the use of information technology is important for communications, as an aid to experiments and as a tool for interpretation of experimental and theoretical results.

## 6. Principles of Accounts (Syllabus 7092)

### Learning Outcomes:

Students will be able to:

- acquire knowledge and understanding of fundamental accounting concepts, principles, and procedures in the context of business aims and activities;
- develop skills in preparing, analysing and interpreting accounting information and understanding their implication;
- develop an understanding of the role of accounting in providing an information system for monitoring and decision making;
- develop skills of numeracy, information technology literacy, communication, inquiry, presentation and interpretation;
- develop attitudes of accuracy, orderliness and logical thought and an appreciation of professional ethics.

## **7. Geography (Syllabus 2236)**

### **Learning Outcomes:**

Students will be able to:

- Acquire knowledge of the characteristics, distribution and processes of physical and human phenomena;
- Develop a holistic understanding of physical-human relationships at local, regional and global scales;
- Gain geographical insights and global awareness into future challenges through the study of current issues and their management;
- Become inquiring and self-directed learners who ask geographical questions and seek understanding through the collection and analysis of geographical information;
- Develop skills in communicating and applying geographical knowledge; and
- Make informed judgements and sound decisions through the analysis, synthesis and evaluation of geographical information.