

2019
SECONDARY 3 SUBJECT COMBINATIONS


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## Preface

At the end of Secondary 2 education all students will be taking part in the Subject Combinations exercise to pursue a particular course from Secondary 3 to Secondary 4/5.

For the Secondary 2 students, choosing $N$-Level subjects is a significant phase of their Secondary School education. This information booklet is prepared with the objective of assisting parents and their daughters in making an informed decision on the Secondary 3 subject combination that best suits the child.

The information in this booklet is organised to provide general expectations of each N -Level subject, some post-secondary education pathways as well as possible career options for the various combinations of subjects. The information is provided with the best intentions and is accurate based on current knowledge. However, they do not guarantee future prospects in either education or career.

We hope you will find the information booklet useful. If you need further clarification, you may seek assistance from your daughter/ward's Form Teacher. We also welcome feedback to improve the Information Booklet.

On behalf of our teachers, we wish every student a meaningful educational journey in PLMGS(Sec) and beyond.

## PART 1: SECONDARY 3 SUBJECT COMBINATIONS EXERCISE

The Secondary 3 Subject Combinations Exercise is an important step in our students' educational journey. The first two years of education in Secondary School allows our students to be exposed to a wide variety of subjects. As the students move towards Secondary 3, they have become better equipped to take on a more specialised course of education. Students have to make a choice on the course which suits them best based on their competency, interest and aspirations. The streaming process as detailed below is put in place to guide students' decisions in choosing their subject combinations.

## 1.1: Process

- Parents are briefed on the Secondary 3 Subject Combinations 2019. (April 2018)
- Using this information booklet, students are advised to have an active discussion with their parents.
- Upon release of the overall results, students are given the Secondary 3 Subject Combinations Option Form. (October 2018)
- Secondary 2 NA students will indicate 4 choices in their option form.
- A subject combination will be allocated to a student based on the following criteria:

1. Competency of the student based on her results. (Merit)
2. Demand for the Subject Combination of her choice. (Choice)

- Students are to submit the Subject Combinations Options Form to their Form Teachers after collecting their overall results. (October 2018)
- Students will receive the outcome of the streaming exercise. (October-November 2018)


## 1.2: Secondary 3 Subject Combinations 2019

The school organises a Sec 2 Parents' Briefing Session in April to inform parents of the subjects that will be offered in 2019.

Based on the analysis of preference survey results, a range of subject combinations is formulated to suit the interests, competencies and aspirations of our students.
We understand that there are students who are able to handle a more demanding educational course yet maintain active participation in their CCA, school and other enrichment programmes. To stretch their potential to the fullest, these students will be allowed to offer 1 additional subject, such as Art and Music in the afternoon.

While the school will always try to cater to the needs and interest of our students, we would like to reiterate that the deciding factors will still be your daughter/ward's overall results and her aptitude towards the subjects chosen. However, constrains in school resources such as manpower and physical facilities are also part of the important factors for consideration in planning and allocating the subjects to our students,

OPTIONS FOR SEC 3 NORMAL (ACADEMIC) SUBJECT COMBINATIONS IN 2019

|  | Option 1 | Option 2 | Option 3 | Option 4 |
| :---: | :---: | :---: | :---: | :---: |
| Compulsory Subjects | English Language | English Language | English Language | English Language |
|  | Mother Tongue | Mother Tongue | Mother Tongue | Mother Tongue |
|  | Mathematics | Mathematics | Mathematics | Mathematics |
|  | Pure Geography | Pure Geography | Pure Geography | Pure Geography |
|  | Social Studies \& Literature | Social Studies \& Literature | Social Studies \& Literature | Social Studies \& Literature |
| Choice within options <br> Combined Science | Combined Science (Physics, Chemistry) | Combined Science (Physics, Chemistry) | Combined Science (Biology, Chemistry) | Combined Science (Biology, Chemistry) |
| Other Elective subjects | Food and Nutrition | Principles of Accounts | Food and Nutrition | Principles of Accounts |
| Total subjects | 7 subjects | 7 subjects | 7 subjects | 7 subjects |

## Points to note for all

1. Students are eligible to take the Out-of-Stream subjects (ie. O-Level subjects) if they meet the school-based criteria.
2. Out-of-Stream subjects that are being offered are O-Level English Language, MotherTongue Language, Mathematics, Science, Art and Music
3. O-Level Art and Music lessons are additional subjects. The lessons will be conducted in the afternoon and can be taken with any combination.
4. Students can take up to a maximum of 3 O-Level subjects, subject to approval by the school.
5. To be eligible for Art, students should obtain a minimum of $65 \%$ for Sec 2 Art.
6. To be eligible for Music, students should obtain Grade 4 for both Theory and Practical (any instruments including singing) by 31 Dec 2018.
7. There are only 40 vacancies for Food \& Nutrition.
8. There should be 10 or more students choosing Art or Music or Food \& Nutrition before the school will consider opening the class.

## 1.3: "How to decide" Guide

What must I consider when choosing the subject combination that suits me best?
As you move on your journey from Lower Secondary to Upper Secondary, you will need to make some important choices. One of them is the subject combination that you would like to take in Secondary 3. This is an important decision because it will affect the next few years of your school life, as well as the future educational and career paths that you would like to take.

Here are a few matters you should consider while deciding on which subject combination suits you best:

Competency in the subject - Competency refers to the ability of an individual to handle the requirements of a subject. Some of us have an innate ability in certain subjects or areas. For example, some find Mathematics a subject easy to manage; they tend to find it quite easy to solve difficult mathematical questions. However, there are some who will take a little longer to grasp a mathematical concept. Competency in the subject is important because it suggests that the students are able to manage difficult topics at the Upper Secondary level.

Interest in the subject - Many students tend to excel in the subjects they are interested in. They go beyond the classroom to read up on information related to the subject. It is important to make sure that it is the subject content that you like and not the teaching style of the subject teacher.

Aspirations - Planning for a career at Secondary 2 is not too far-fetched. Many a time, career prospects are affected by the subject combination you choose now. If you find planning a career difficult, you might want to think about the jobs you definitely do not want and that may help to narrow down your options. Consider your plans for post-secondary education. (Would you like to further your education in junior college, polytechnic or specialised schools?)

Aptitudes and Abilities - Consider the talents and skills you have. For example, are you musically or artistically talented?

## PART 2: SUBJECT INFORMATION

The following information on the respective subjects offered in Upper Secondary is extracted from the N -Level syllabi provided by MOE.

### 2.1 ENGLISH

SCHEME OF ASSESSMENT - NORMAL (ACADEMIC)

| Paper | Type of Paper | Duration | Marks | Weighting |
| :--- | :--- | ---: | :---: | :---: |
| 1 | Writing | 1h 50 min | 70 | $35 \%$ |
| 2 | Comprehension | 1h 50 min | 50 | $35 \%$ |
| 3 | Listening | 45 min | 30 | $10 \%$ |
| 4 | Oral Communication | 20 min | 30 | $20 \%$ |
|  | Total |  | $\mathbf{1 8 0}$ | $\mathbf{1 0 0 \%}$ |

## SUBJECT CONTENT FOR NORMAL (ACADEMIC) STREAM

|  | Section A (Editing) <br> Paper 1 <br> Writing |
| :--- | :--- |
| $\frac{\text { Section B (Situntify and edit grammat Writing) }}{\text { Candidates write 180 }-250 \text { words on a given situation which will involve }}$ <br> viewing a visual text. <br> Section C (Continuous Writing) <br> Candidates write 250 - 400 words on one of the four topics set. |  |
| Paper 2 <br> Comprehension | Section A <br> Candidates respond to questions based on Text 1, a visual text. <br> Section B <br> Candidates respond to a variety of questions based on Text 2 which is a <br> narrative or a recount. <br> Section C <br> Candidates respond to a variety of questions based on Text 3, a non- <br> narrative text, and write an 80-word response to a summary writing task. |
| Paper 3 | $\frac{\text { Section A }}{\text { Candidates respond to a variety of listening tasks based on a number of }}$ <br> audio recordings which the candidates will hear twice. <br> Listening |
| Section B <br> Candidates listen to an audio recording and do a simple note-taking <br> exercise. Candidates will hear the recording only once. |  |
| Paper 4 <br> Oral <br> Communication | The two parts are thematically linked. <br> Part 1 - Reading Aloud <br> Part 2 - Spoken Interaction |

## 2．2 MOTHER TONGUE LANGUAGE

## SCHEME OF ASSESSMENT

Normal Academic Chinese Language（CL）：普通学术课程——华文

## Examination Syllabus：考试纲要

| Paper | Type of Papers | Marks （Weighting） | Duration |
| :---: | :---: | :---: | :---: |
| 试卷一 | Composition 作文 <br> （记叙文，议论文和说明文） <br> （4选1） | 40 marks （20\％） | 2 h |
|  | Email writing 实用文 <br> （私人电邮，公务电邮） <br> （ 2 选 1 ） | $\begin{gathered} 20 \text { marks } \\ (10 \%) \end{gathered}$ |  |
| $2$ <br> 试卷ニ | Language use and Comprehension语文理解与运用： <br> - 综合填空（多项选择） <br> - 阅读理解一（多项选择） <br> - 阅读理解二（自由作答） | $\begin{aligned} & 60 \text { marks } \\ & (30 \%) \end{aligned}$ | 1 h 30 min |
| 3 <br> 试卷 $三$ | Oral 口试 <br> - 朗读短文 <br> - 会话：看录像短片，然后跟主考员进行对话 | $\begin{gathered} 60 \text { marks } \\ (30 \%) \end{gathered}$ | 10－15 min |
|  | Listening Comprehension 听力理解 | $\begin{gathered} 20 \text { marks } \\ (10 \%) \end{gathered}$ | 30 min |

Normal Academic (ML) Examination Syllabus

| Paper | Type of Papers | Marks <br> (Weighting) | Duration |
| :---: | :--- | :---: | :---: |
| 1 | Composition | 40 marks <br> $(20 \%)$ | 2 h |
|  | E-mail writing | 20 marks <br> $(10 \%)$ |  |
| 3 | Language use and Comprehension <br> Bahagian A (Imbuhan, peribahasa \& golongan <br> kata) <br> Bahagian B (Pemahaman 1-2 teks pendek dari <br> bahan autentik) <br> Bahagian C (Pemahaman 2 - 1 teks naratif) | 60 marks <br> $(30 \%)$ | 1 h 30 min |
|  | Oral <br> Reading (20/10\%) <br> Conversation - Video clips (40/20\%) <br> Topic | 60 marks <br> $(30 \%)$ | $10-15$ min |
|  | Listening Comprehension | 20 marks |  |
| $(10 \%)$ |  |  |  |

Normal Academic (வழக்கநிலை ஏட்டுக்கல்வி)
(TL) Examination Syllabus - (தேர்வுக்குரிய சூறுகள்)

| Paper | Type of Papers | Marks (Weighting) | Duration |
| :---: | :---: | :---: | :---: |
| தாள் 1 | 'அ' பிரிவு Email Writing மின்னஞ்சல் எழுதுதல் (1.உறவுுறை 2.தொழில்றுறை) (2 விணாக்களுள் 1-க்கு விமையளித்தல்) 'ஆ' பிரிவ Composition கட்டுறை எழுதுதல் (3 வினாக்களூள் 1-க்கு விடையளித்தல்) | 20 Marks (10\%) <br> 40 Marks (20\%) | 2 h |
| Paper 2 தாள் 2 | Language use, Comprehension மொழிக்கூறுகள் \& கருத்தறிதல் <br> 'அ' பிரிவு <br> A1 இணைமொழி / மரபுத்தொடர் <br> A2 வாக்கியங்களை முடித்தெழுதுதல் <br> A3 அமைப்புச் சொற்கள் <br> 'ஆ' பிரிவ <br> B4 தெரிவுவிடைக் கருத்தறிதல் (5 வினாக்கள்) <br> 'இ' பிரிவு <br> C4 சுயவிடைக் கருத்தறிதல் (3 சொற்பொருள் உட்பட 8 வினாக்கள்) | $\begin{aligned} & 60 \text { Marks } \\ & (30 \%) \end{aligned}$ | 1 h 30 min |
| Paper 3 <br> 3 | Oral \& Listening Comprehension (வாய்மொழியும் கேட்டல் கருத்தறிதலும்) <br> பகுதி 1 <br> வாய்மொழி <br> 1. வாய்விட்டு வாசித்தல் <br> 2. உரையாடல் (ஒளிக்காட்சி ஊக்கக்கூறையொட்டி அமையும்) | 60 Marks (30\%) <br> 20 Marks (10\%) <br> 40 Marks (20\%) | 10-15 min |
|  | பகுதி 2 <br> கேட்டல் கருத்தறிதல் | 20 Marks (10\%) | 30 min |

### 2.3 MATHEMATICS SYLLABUS A

SCHEME OF ASSESSMENT

| Paper | Description | Duration | Marks | Weighting |
| :---: | :--- | :---: | :---: | :---: |
| 1 | About 25 short questions. All questions are to be <br> answered. | 2 hours | 80 | $50 \%$ |
|  | Section A <br> 9 to 10 questions of varying lengths. The last <br> question in this section will focus specifically on <br> applying mathematics to a real-world scenario. <br> All questions are to be answered. | 2 hours | 60 | $50 \%$ |
| 2 | Section B <br> Choose 1 out of 2 questions: <br> Each question carries the same number of <br> marks, i.e. either 7 or 8 marks. <br>  <br> Measurement strand and 1 question will be <br> from Statistics \& Probability strand, based on <br> the underlined content shown in syllabus. |  |  |  |

## SUBJECT CONTENT

| Number \& Algebra |  | Geometry \& Measurement |  |
| :---: | :---: | :---: | :---: |
| N1 | Numbers and their operations | G1 | Angles, triang |
| N2 | Ratio and proportion | G2 | Congruence and |
| N3 | Percentage | G3 | Properties of ci |
| N4 | Rate and speed | G4 | Pythagoras' the |
| N5 | Algebraic expressions and formulae | G5 | Mensuration |
| N6 | Functions and graphs | G6 | Coordinate geo |
| N7 | Equations and inequalities | G7 | Problems in rea |
| N8 | Problems in real-world contexts | Statistics \& Probability |  |
|  |  |  | Data analysis Probability |

## Additional Information

Mathematics is a compulsory subject to be offered at GCE O-Level Examination with the following requisite grades for admission to post-secondary institutions:

- Junior Colleges (JC) / Millennia Institute (MI) Admission - At least a D7 in Mathematics
- Polytechnic Admission - At least a C6 for most courses
- ITE Admission for Higher Nitec Courses - At least a D7 for most courses

A student who excels in Mathematics will have a good foundation to offer Mathematics in JC / Ml at the H 1 level. H 1 Mathematics provides a foundation in Mathematics for students who intend to enrol in university courses such as Business, Economics and Social Sciences. Students will develop Mathematical thinking and problem-solving skills. The course covers 'Functions \& Graphs', 'Calculus' and 'Probability \& Statistics'. A major focus of the syllabus will be the understanding and application of basic concepts and techniques of statistics to equip students with the skills to analyse and interpret data, and make informed decisions.

## Advice to students who are weak in Mathematics

It is a requisite to obtain a minimum grade of D7 in Mathematics for admission to $\mathrm{JC} / \mathrm{MI}$. Otherwise, a student will only be granted conditional admission to $\mathrm{JC} / \mathrm{Ml}$ and is required to re-sit for the Mathematics Papers in the GCE O-Level Examination in the following year. Should a student fail to obtain the requisite grade, she will be transferred from the JC to MI. Should a student fail to obtain the requisite grade by the $2^{\text {nd }}$ year in MI, she will be asked to leave the MI course.

Hence, it is advisable to focus one's efforts to excel in Mathematics and obtain a distinction for computation towards L1R5 than to struggle with the offer of Mathematics and Additional Mathematics with each subject getting a failing or mediocre grade.

### 2.4 COMBINED HUMANITIES

## INTRODUCTION

The Humanities subject is a compulsory subject for the GCE N-Level Examinations.
For 2019, students will have to take the compulsory Social Studies component with Literature.

## SUBJECT COMBINATIONS

Students will have to take Paper 1 (Social Studies) with Literature.

| First Humanities Subject <br> (compulsory) |  | Second Humanities <br> Subject |
| :--- | :--- | :--- |
| Paper 1: Social Studies <br> (compulsory) | Paper 4: Literature | Pure Geography |

### 2.4.1 HUMANITIES PAPER 1 (SOCIAL STUDIES)

SCHEME OF ASSESSMENT

| Paper | Type of Paper | Section A | Section B | Duration | Marks | Weighting |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Social Studies | 1 Source Based Question with 5 parts | Structured <br> Response Question with 2 parts. | 1h 45 min | Section A <br> (35m) <br> Section B <br> (15m) | 50\% |

## SUBJECT CONTENT

The Singapore Social Studies Curriculum seeks to prepare our students to be citizens of tomorrow by helping them to better understand the interconnectedness of Singapore and the world they live in. Drawing on aspects of society that are of meaning and interest to students, Social Studies seeks to ignite students' curiosity to inquire into real-world issues that concern our lives, and envisions students as informed, concerned and participative citizens, competent in decision making and impassioned to contribute responsibly to the society and world they live in.

| Issue | Topic Overview |
| :---: | :--- |
| Issue 1 | This Issue invites students to begin exploring what it means to be an <br> informed, concerned and participative citizen. Students will deepen <br> their understanding of their roles as citizens and that of the |
| Eitizenshing and <br> Governance | government. This will serve to develop a stronger sense of civic <br> consciousness, enhancing the roles they play as citizens who are <br> rooted in Singapore with a global outlook. |
| Issue 2 | This Issue helps students appreciate diversity and the importance of <br> harmony. Students will develop an understanding of who they are as <br> individuals and accept, respect and celebrate diversity as well as |
| Diverse in a Society |  |
| common practices and values in a diverse society. This will heighten |  |
| students' awareness of the need to develop personal and collective |  |
| responsibility in promoting and maintaining harmony in a diverse |  |
| society. |  |

### 2.4.2 HUMANITIES PAPER 2 <br> (LITERATURE)

SCHEME OF ASSESSMENT

| Paper | Type of Paper | Section A | Section B | Duration | Marks | Weighting |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | Literature | Set Text <br> (Novel) | Unseen Prose <br> \& Poetry | 1 h 40 m | 50 m | $50 \%$ |

## SUBJECT CONTENT

The Literature Syllabus aims to enable students to discover the joy of reading Literature, appreciate the aesthetic value of language and to explore how the elements of different genres function in literary works to achieve specific effects. Candidates of this paper will be assessed on their ability to demonstrate understanding of the ways in which writers' choices of form, structure and language shape meanings and express their responses clearly and coherently.

| Section A: <br> Set Text (25\%) | Students will read one set text (Novel) and answer one passage- <br> based or one essay question. There will be a choice of one <br> passage-based question and two essay questions given. |
| :--- | :--- |
| Section B: <br>  <br> Poetry (25\%) | There are no prescribed texts. There will be two questions, one on <br> unseen prose and one on unseen poetry. Students will answer one <br> question. There are two parts to each question. |

## ADDITIONAL INFORMATION

| Sec 3 | Sec 4 |
| :--- | :--- |
| - Set Text (70\% completed) | - $\operatorname{Set}$ Text $(100 \%$ completed $)$ |
| - Components of Unseen Prose \& Poetry | - $\quad$ Components of Unseen Prose \& Poetry |

- Both the Express and Normal Students may do the same texts.
- However assessment is in the form of scaffolded questions for the Normal (Academic) Students.
- Over 3 years, Normal (A) Students will be prepared for one set text (novel) and the Unseen component.


### 2.5 PURE GEOGRAPHY

SCHEME OF ASSESSMENT

| Paper | Type of Paper | Duration | Marks | Weighting |
| :---: | :---: | :---: | :---: | :---: |
| 1 | - Geographical Investigation (Fieldwork) <br> - Structured Question <br> - Level Descriptor Marking Question | 1h 40min | 50 | 50\% |
| 2 | - Structured Questions <br> - Level of Descriptor Marking Question | 1h 30min | 50 | 50\% |

## SUBJECT CONTENT

The O-Level Upper Secondary Geography syllabus comprises Physical Geography, Human Geography and Geographical Skills and Techniques, including Geographical Investigation. The aims of the syllabus are similar to that of the Elective Geography component. The Physical Geography topics are Plate Tectonics and Resulting Landforms, Weather and Climate, and Coasts. The Human Geography topics are Geography of Food, Tourism and Health and Disease.

| (Paper 1)Geographical Investigation and Structured Question | (Paper 2)Structured Questions |
| :---: | :---: |
| Section A One structured question on Geographical Investigation will be set based on following topics. <br> 1. Coasts (Fieldwork Component) <br> - coastal processes and their resultant landforms and features <br> - coastal management <br> 2. Tourism (Fieldwork Component) <br> - the global tourism industry <br> - impact of the growth of tourism <br> - managing the impact of tourism | Section A Answer one question out of two structured questions. <br> - can be a combination of 2 topics in one of the two structured questions. <br> 1. Tectonic Hazards <br> - plate tectonics and phenomena and landforms associated with plate movements <br> - impact of and adaptation to earthquakes <br> 2. Weather and Climate <br> - elements of weather <br> - types of climate <br> - severe weather phenomena |
| Section B Answer one question out of two questions. <br> - can be a combination of 2 topics in one of the two structured essay questions in section $B$. <br> 1. Coasts <br> - coastal processes and their resultant landforms and features <br> - coastal management <br> 2. Tourism <br> - the global tourism industry <br> - impact of the growth of tourism <br> - managing the impact of tourism | Section B Answer one question out of two questions. <br> - can be a combination of 2 topics in one of the two structured questions. <br> 3. Geography of Food <br> - trends in food production and distribution since 1960 <br> - factors affecting intensity of food production <br> - development in food production <br> 4. Health and Disease <br> - global pattern of health and diseases <br> - influences of spread and impact of infectious diseases (malaria/ HIV) management of current and future spread of infectious diseases |

### 2.6 COMBINED SCIENCES

### 2.6.1 SCIENCE (CHEMISTRY/BIOLOGY) 5107 - NORMAL (ACADEMIC)

SCHEME OF ASSESSMENT

| Paper | Type of Paper | Duration | Marks | Weighting |
| :---: | :--- | :---: | :---: | :---: |
| 3 | Multiple Choice (Chemistry) | h 15 min | 20 | $20 \%$ |
|  | Structured questions (Chemistry) |  | 30 | $30 \%$ |
| 5 | Multiple Choice (Biology) | h 15 min | 20 | $20 \%$ |
|  | Structured questions (Biology) |  | 30 | $30 \%$ |

## CONTENT STRUCTURE

SC (BIOLOGY)

| Section | Topics |
| :--- | :--- |
| I. Principles of Biology | 1. Cell Structure and Organisation |
|  | 2. Movement of Substances |
|  | 3. Biological Molecules |
|  | 4. Nutrition in Humans |
|  | 5. Nutrition in Plants |
|  | 6. Transport in Flowering Plants |
|  | 7. Transport in Humans |
|  | 8. Respiration in Humans |
| III Continuity of Life | 9. Reproduction |

## CONTENT STRUCTURE

 SC (CHEMISTRY)| Section | Topics |
| :--- | :--- |
| I. Experimental Chemistry | 1. Experimental Chemistry |
| II. Atomic Structure and Stoichiometry | 2. The Particulate Nature of Matter |
|  | 3. Formulae and and The Mole Concept |
| III. Chemistry of Reactions | 4. Acids, Bases and Salts |
| IV. Periodicity | 5. The Periodic Table |
|  | 6. Metals |
| V. Atmosphere | 7. Air |
| VI. Organic Chemistry | 8. Organic Chemistry |

(This information from SEAB is accurate as of April 2018)

### 2.6.2 SCIENCE (PHYSICS/CHEMISTRY) 5105 - NORMAL (ACADEMIC)

SCHEME OF ASSESSMENT

| Paper | Type of Paper | Duration | Marks | Weighting |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Multiple Choice (Physics) | 1h 15min | 20 | 20\% |
| 2 | Structured questions (Physics) |  | 30 | 30\% |
| 3 | Multiple Choice (Chemistry) | 1h 15min | 20 | 20\% |
| 4 | Structured questions (Chemistry) |  | 30 | 30\% |

## CONTENT STRUCTURE

SC (PHYSICS)

| Section | Topics |
| :---: | :---: |
| I. Measurement | 1. Physical Qualities, Units and Measurement |
| II. Newtonian Mechanics | 2. Kinematics |
|  | 3. Dynamics |
|  | 4. Mass, Weight and Density |
|  | 5. Turning Effect of Forces |
|  | 6. Pressure |
|  | 7. Energy, Work and Power |
| III. Thermal Physics | 8. Kinetic Model of Matter |
|  | 9. Transfer of Thermal Energy |
|  | 10. Thermal Properties of Matter |
| IV. Waves | 11. General Wave Properties |
|  | 12. Electromagnetic Spectrum |
|  | 13. Sound |
| V. Electricity and Magnetism | 14. Current of Electricity |
|  | 15. D.C. Circuits |
|  | 16. Practical Electricity |

## CONTENT STRUCTURE

 SC (CHEMISTRY)| Section | Topics |
| :--- | :--- |
| I. Experimental Chemistry | 1. Experimental Chemistry |
| II. Atomic Structure and Stoichiometry | 2. The Particulate Nature of Matter |
|  | 3. Formulae and and The Mole Concept |
| III. Chemistry of Reactions | 4. Acids, Bases and Salts |
| IV. Periodicity | 5. The Periodic Table |
|  | 6. Metals |
| VI. Organic Chemistry | 8. Organic Chemistry |

(This information from SEAB is accurate as of April 2018)

### 2.7 FOOD \& NUTRITION

## GCE N-LEVEL FOOD \& NUTRITION

The aims of the Food \& Nutrition syllabuses are as follows:

- To develop candidates' understanding of the concepts of nutrition and meal planning
- To develop candidates' understanding of the link between diet and health
- To develop candidates' understanding of the principles of food science
- To equip candidates with the knowledge and skills to make informed decisions concerning food and nutrition


## SCHEME OF ASSESSMENT

## Food and Nutrition N -Level

Paper 1: 40\% (80m)
Paper 2: 60\% (60m)
Paper 1 (11/2 h)
Written paper. Answer all questions.
Section A: Short Answer Questions (20m)
Section B: Structured questions (28m)
Section C: Essay Questions (32m)
Paper 2: Coursework (60\%)
Task Analysis: 6m

Research/Development: 8m
Decision Making: 8m
Planning: $8 m$
Execution:

- Organisation/Management $8 m$
- Manipulation 8m
- Product 8m

Evaluation: 6 m
Sub-total: $\quad 60 \mathrm{~m}$

## Entry Requirements

- At least a pass in Food and Consumer Education in Secondary 2


## Demands of the Syllabus

- Good work ethics and time management skill
- Using computer and internet to do coursework


### 2.8 MUSIC (for selected O and $N(A)$ students only)

GCE O-LEVEL MUSIC
Students will be developed in the following areas during their weekly lessons:

- Critical thinking and musical creativity
- Communicative and interpretative skills in music
- Perception and awareness of musical cultures and traditions, both local and global
- An informed and lifelong appreciation of music


## SCHEME OF ASSESSMENT

## Component 1: Music Studies (50\%)

- 2-hour written paper
- Aural awareness and perception
- Concepts and features of Western and Asian Music
- Knowledge and understanding of one prescribed work (Western Music) and one prescribed source material (Asian Music)
Component 2: Performing (30\%)
- Demonstrate technical competence and interpretative understanding of music performed
- 15-minute recital
- Perform three contrasting pieces

Component 3: Music Writing (20\%)

- Understand the processes of Music Composition
- Coursework examination: to set a short passage of poetry for voice with accompaniment


## GCE O-Level Higher Music

- In addition to GCE O-Level Music, candidates who offer GCE O-Level Higher Music will need to do 1 out of 3 options as follows:
- Essay (1500 - 2000 words of individual inquiry into a subject of candidate's own choice)
- Composition (6 minutes of music composition portfolio)
- Performing (2 additional musical pieces)


## Entry Requirements

- A pass in Grade 4 for Theory and Practical
- Interview to evaluate suitability


## Demands of the Syllabus

- Exploration music in greater depth
- Students must listen to a wide range of music (eg listen to CDs and attend concerts etc)
- Private instrumental / vocal tuition with a tutor outside of school hours (in preparation for the Performing Component)
- Participate in musical activities (eg Lunchtime concerts, performing arts CCA etc)


### 2.9 ART (for selected $O$ and $N(A)$ students only)

GCE O-LEVEL ART
Students are equipped to apply the following 5 domains during their weekly lessons:

- Gathering and Investigation of Information
- Exploration and Development of Ideas/Concepts
- Aesthetic Qualities
- Selection and Control of Materials and Technical Processes
- Personal Response


## SCHEME OF ASSESSMENT

Candidates taking GCE O-Level Art will be required to offer the following papers:

| Paper | Description | Examination <br> Duration | Weighting |
| :---: | :---: | :---: | :---: |
| Paper 1 | Coursework | Not Applicable | $60 \%$ |
| Paper 2 | Drawing and Painting | 3 hours | $40 \%$ |

## Paper 1: Coursework

For the O-Level Coursework (Paper 1), candidates must submit 8 A2 size preparatory boards (single-sided) together with the final Art work.

## Paper 2: Drawing and Painting

The topics for the O-Level Drawing and Painting exam (Paper 2) are released 3 weeks prior to the Drawing and Painting 3 hour exam. For the O-Level Drawing and Painting exam (Paper 2), candidates must submit 5 A3 size preparatory boards (double-sided) together with the drawing and painting art work they will sit for. The A3 size preparatory boards are to be prepared and ready before the day of the drawing and painting exam.

## Entry Requirements

- At least 65 marks (overall) for Sec 2 Art and pass a Selection Test
- Right aptitude and attitude for Art
- An inquiring mind, a spirit of experimentation and a passion for the visual arts


## Demands of the Syllabus

The Art Syllabus requires students to:

- Spend a minimum of three hours each week outside of curriculum to hone their sensitivity to materials and processes to develop a firm grounding in both the practical and theoretical aspects of Art and Design
- Attend enrichment activities such as workshops, artists' talks and learning journeys to art galleries and museums organised by the school or MOE
- Participate in art-related competitions to sharpen their skills and participate in school or national exhibitions
- Commit to the rigour and demands of the art curriculum and art development process


### 2.10 PRINCIPLES OF ACCOUNTS

SCHEME OF ASSESSMENT

| Paper | Description | Duration | Marks | Weighting |
| :---: | :--- | :--- | :--- | :--- |
| 1 | Answer 3 to 4 compulsory structured questions. | 1 hour | 40 | $40 \%$ |
|  | Section A (48 marks) |  |  |  |
| C Answer 3 compulsory structured questions. <br> - One question will be on the preparation of <br> financial statements, which carries 24 marks. <br> - The remaining two questions average 12 <br> marks. <br> Section B (12 marks) | 2 hours | 60 | $60 \%$ |  |
| Answer 1 out of 2 structured questions. |  |  |  |  |$\quad$| An |
| :--- |

## SUBJECT CONTENT

| (1) | The Roles of Accounting | (3) | Elements of the Financial Statements |
| :---: | :---: | :---: | :---: |
| 1.1 | Accounting and book-keeping | 3.1 | Sales revenue, other income, cost of |
| 1.2 | Roles of accounting |  | sales and expenses |
| 1.3 | Stakeholders | 3.2 | Balance day adjustments |
| 1.4 | Professional ethics | 3.3 | Trade receivables |
| 1.5 | Profit-making entities | 3.4 | Inventories |
| 1.6 | Accounting theories | 3.5 | Trade payables |
| (2) | The Accounting Information System | 3.6 | Control accounts |
| 2.1 | Elements of financial statements | 3.7 | Capital and revenue expenditure |
| 2.2 | Double entry recording | 3.8 | Non-current assets |
| 2.3 | Accounting equation | 3.9 | Long-term borrowings |
| 2.4 | Journal entry | 3.10 | Correction of errors |
| 2.5 | Ledger account | (4) | The Financial Statements |
| 2.6 | Accounting system and accounting cycle | 4.1 | Balance sheet |
| 2.7 | Source documents | 4.2 | Income statement |
| 2.8 | Journals | (5) | Business Entities |
| 2.9 | Cash book | 5.1 | Sole proprietorship |
| 2.10 | Special journals |  |  |
| 2.11 | General journal |  |  |
| 2.12 | Petty cash book |  |  |
| 2.13 | General and subsidiary ledgers |  |  |
| 2.14 | Trial balance |  |  |
| 2.15 | Bank reconciliation |  |  |

## Additional Information

Accounting is an information system based on generally accepted accounting principles. It involves the recording and processing of business transactions, and communicating the information to stakeholders. The accounting information is used to evaluate business performance and facilitate decision-making. What sets the accountancy profession apart is the responsibility to act in the public's interest.

POA is designed to provide students with a meaningful basic introduction to financial accounting and to develop an appreciation of the discipline of accounting. It is grounded in preparing, communicating and using financial information, and appreciating the need for ethical conduct. POA places emphasis on the understanding and application of accounting knowledge to develop lifelong skills and values that will be of value in the increasingly complex world of business.

POA forms part of a broad-based education to equip students with theoretical knowledge, skills, $21^{\text {st }}$ Century Competencies and strong fundamentals for future learning, so as to prepare them for post-secondary education in related courses such as Accountancy, Business \& Management and Business \& Services.

PART 3: INFORMATION
3.1 Junior College (JC), Millennia Institute (MI), Polytechnic Education \& Institute of Education (ITE)

Information on Joint Admissions Exercise can be found at https://www.moe.gov.sg/admissions/jae

Or simply scan the QR-code on the right with an Internetenabled mobile device.


### 3.2 Contact Us

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Sec 2NA Form and Co-Form Teachers

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