Peirce Secondary School

SECONDARY 2 SUBJECT OPTIONS EXERCISE (SSOE) 2022

INFORMATION BOOKLET
for
Secondary 3 Express Course (2023)

GENERAL INFORMATION

This booklet provides details to help parents and students make informed decisions about the subjects to read in Secondary 3 Express in 2023.

1. Subject Options Exercise is conducted after the release of the year-end examination results.
2. Students will only be able to choose from a list of subject combinations they are eligible for.
3. Students will be briefed 2 times – once in Term 2 and one more time in Term 4.
4. Mock Subject Options Exercise in T3W1
    a. The school conducts a Mock Subject Options Exercise in T3W1 to provide:
        i. a **reality check** for students – it helps them recognize the gap between their goals and current progress;
        ii. a **dipstick** for the school to gauge student interest in the subjects to facilitate resource management;
    b. Sec 2 students will indicate their subject choices via the school's SOE portal in T3W1 after the Mid-year results are out.
    c. Students will be allocated their subject combination based on their Sec 2 First Semester Combined results.
    d. Results of the Subject Options Exercise will be released in Term 3 Week 3 through school's SOE portal.
    e. The Mock Subject Options Exercise **will not have any bearing** on the actual exercise in October.
5. Subject Options Exercise in October (Term 4 Week 6)
    Students will be allocated their subject combinations based on their Sec 2 Overall results.

Instructions on Online Subject Options Exercise and application for less demanding elective subjects
1. The students will each receive a personalised hardcopy option form.
2. The list of subject combinations which the students are eligible for will be shown.
3. The students are to indicate the order of choice (1st to 6th) against the corresponding subject combinations they are opting for in the bottom row of the worksheet.
4. Students are to login to the school's SOE portal via https://peirce.schoolhub.sg, username: class_register no_22 e.g. 2C_01_22, Password will be given on personalised hardcopy form.
5. The students are to **click "streaming"** and then **click "register"** to enter their choices into the portal as per the options indicated in the personalized hardcopy form and complete the process by clicking on the **"submit"** and click **confirmation slip (PDF Format)**.
6. Parents must e-sign on the confirmation slip on PDF format and students are to submit the confirmation slip with parent's e-signature via google classroom (form class).
7. Students who are interested in doing an **elective subject at a less demanding level** are to request a separate hardcopy application form from the Year Head or the Assistant Year Head.

Submission of Option Forms and Release of Subject Options Exercise Results
1. Parents are advised to carefully consider their child's choices of subject combinations and complete the option form.
2. Submission of the confirmation slip from the SOE portal must be made by the given deadline via Google Classroom (Form Class). Only submissions made by the deadline, and endorsed by a parent/ guardian, can be considered.
3. Students applying to take subjects at less demanding levels are to submit the forms to the General Office.
4. Results of the Subjects Options Exercise will be released within 2 weeks of the exercise.
5. Parents will be able to view their children's allocated subjects on the school's SOE portal.
6. Appeals
   - All appeals will be considered **only after** the Subject Options Exercise has been completed and the results, released.
   - These appeals must then be **made via the SOE portal** https://peirce.schoolhub.sg and must be submitted by the given deadline.
   - Appeals will only be considered if they do not contradict the established school policy on subject options.
   - The appeals will be considered on a case-by-case basis.
   - The results of the appeals will only be confirmed and made known to applicants at the end of December. Applicants may check the outcomes of their appeals via the SOE portal.
   - The school's decision will be final, and no further appeals can be made.

School Policy on Subject Options
1. The school reserves the right to decide on the final subject combination offered.
2. Each student in the Express Course would be offered 7 subjects.
3. Compulsory subjects for all students are:
   a. English Language,
   b. Mathematics,
   c. Mother Tongue language,
   d. Combined Humanities (Social Studies + Geography or History),
   e. At least 1 Science subject.

Subject	Subject Pre-Requisites and Additional Conditions	
MATHEMATICS		
Additional Mathematics	Students laterally transferred from 2NA: Students in 2E:	At least a score of 80 in Sec 2NA Mathematics At least a C5 in Mathematics.
SCIENCES		
Double Pure Science	At least a B3 in Science.	
HUMANITIES		
Literature	At least an **A2** in Literature **AND B3** in English Language.	
Geography	At least an **A2** in Geography & must NOT be offered with Humanities (Geography).	
Humanities (Geography & Social Studies)	Must NOT be offered with Geography.	
Humanities (History & Social Studies)	N.A	
COURSEWORK		
Design & Technology	Maximum Class Size: 20.	
Art	Maximum Class Size: 20.	
Food & Nutrition	Maximum Class Size: 20.	
OTHERS		
Computing	At least a C5 in Mathematics.	
Principles of Accounts		

Elective subjects at a less demanding level (N level)
To better meet the needs of individual students, elective subjects have been offered at a less demanding level from 2021
Purpose:
   a) Broaden students' learning while keeping overall curriculum load manageable.
   b) Provide students with a stronger foundation for post-secondary courses.
Points to note:
   - There is no upward conversion of marks for 'N' level subjects. Hence, it will not contribute towards 'O' level grades.
   - There is no change to the existing Post-Secondary Articulation (PSA) admission criteria.
   - Elective subjects offered at a less demanding level in PSS includes Additional Mathematics ('N' level), Design & Technology ('N' level) and Art ('N' level).
   - For Design & Technology ('N' level) and Art ('N' level), classes will be formed only if there is enough demand.

4. The students will be streamed based on the following:
   a. **Sec 2 Overall results**
   b. In the event that demand is greater than the number of vacancies, priority will be given based on the following considerations (listed in order of importance):
      i. Order of Choice (First choice will be looked at first)
      ii. Order of Merit (Subject-specific)
      iii. Order of Merit (Overall Average for all subjects)
5. Subject Options Committee will accommodate students' request whenever possible, taking into account students' suitability and sustainability.
6. Students who are not given any of their choices or do not meet the pre-requisites for any combinations will be allocated subjects based on their strengths.

3E Subject Combination Options Summary 2023

	Subj 1	Subj 2	Subj 3	Subj 4		Subj 5	Subj 6	Subj 7
	EL	**MT**	**Maths**	**Humanities**		**Science**	**Elective 1**	**Elective 2**
Science Focused	EL	HMT MT	Mathematics	Social Studies	Geography History	Pure Chemistry	Pure Physics Pure Biology	Additional Mathematics (O level) or *Additional Mathematics (N level)*
Applied Science Focused	EL	HMT MT	Mathematics	Social Studies	Geography History	Science (Phy/ Chem) Science (Chem/Bio)	Additional Mathematics (O level) or *Additional Mathematics (N level)* Principles of Accounts	Computing Design & Technology (O level) or *Design & Technology (N level)* Food & Nutrition
Humanities Focused	EL	HMT MT	Mathematics	Social Studies	Geography History	Science (Phy/ Chem) Science (Chem/Bio)	Additional Mathematics (O level) or *Additional Mathematics (N level)* Principles of Accounts	Art (O level) or *Art (N level)* Pure Geography Pure Literature

Note
1. Each student can only take up to a maximum of 7 subjects.
2. Each student can offer a maximum of only 2 Math, 2 Sciences and 2 Humanities, within the maximum of 7 subjects.
3. Students can take an elective subject at a less demanding level 'N' level subject for one of the following: A. Math, D&T or Art at 'N' level. However, there is no upward conversion of marks and only 'O' level results will be considered in the computation of L1R5 (JC), L1R4 (MI) and ELR2B2 (Poly). Students are only allowed to select a maximum of one elective subject at a less demanding level.

Legend:
1. EL – English
2. MT – Mother Tongue
3. HMT – Higher Mother Tongue
4. * - Elective subjects offered at a less demanding level from 2021 onwards.

OPTIONS

SCIENCES

Brief Description
All students are required to study at least one Science subject. There are 3 basic branches of Science:

1. *Physics* – Physics is concerned with the underlying principles of the natural world, and deals with the elementary constituents of the universe, that is, all classes of matter and energy, their interactions, as well as the analysis of systems which are best understood in terms of their fundamental principles.
2. *Chemistry* – Chemistry deals with the composition and statistical properties of matter and structures, as well as their transformations and interactions to become materials encountered in everyday life. The physical properties of materials are generally determined by their structure at the atomic scale, which in turn is dictated by the properties and energies of the interactions.
3. *Biology* – Biology, essentially the study of Life, is concerned with the characteristics, classification, and behaviours of organisms, how species come into existence, and the interactions they have with each other and with the environment. All concepts in biology are subject to the same laws that other branches of science obey, such as the laws of thermodynamics and conservation of mass.

Students may opt to do:
*   2 pure Science subjects (comprising Chemistry and Physics/ Biology), **or**
*   1 Combined Science subject from Science (Physics/Chemistry) or Science (Chemistry/Biology)

Students who intend to pursue pure Science subjects should note that the level of rigor is high and students must have both perseverance and a good attitude to manage the subject. Students opting for pure Science subjects must obtain **B3 in Science** at the Secondary 2 Express level.

As a guide, the content of a component subject of Combined Science is about 60% of its pure Science equivalent. It is important to be able to cope with both components well in order to do well. For example, students pursuing Science (Physics/Chemistry) must do well in both the Physics and Chemistry components in order obtain a good grade for the subject.

Physics	Chemistry	Biology
Examination Requirements 'O' Level Examination for Pure Science subjects comprises: • Paper 1 : Multiple-choice Questions • Paper 2 : Structured & Free Response Questions • Paper 3 : Science Practical Assessment		

Science (Physics/Chemistry)	Science (Chemistry/Biology)

Examination Requirements
'O' Level Examination for Combined Science comprises:
    • Paper 1 : Multiple-choice Questions
    • Paper 2 : (Physics)   } Structured & Free-Response Questions.
    • Paper 3 : (Chemistry)   } Science (Physics/ Chemistry) students will take Papers 2 and 3.
    • Paper 4 : (Biology)   } Science (Chemistry/ Biology) students will take Papers 3 and 4.
    • Paper 5 : Science Practical Examination	

Post-Secondary Options
Science subjects at the secondary level prepare students for the next phase of education, i.e. for JC and polytechnic education. Students who have studied Physics, either as part of Combined Science or as a pure subject, will have a broad range of options at the tertiary level. Many JC subject combinations and polytechnic diploma courses require Physics as a prerequisite subject. This is especially true of Engineering courses.

Students who have studied Biology will have an advantage if they pursue Life Science courses in the polytechnics, or pursue 'A' Level Biology in JC. However, Chemistry, and not Biology, is the compulsory subject for university studies in Life Sciences or medicine-related degree programmes. Thus, for those who are thinking of a career in Life Sciences and medicine-related fields, it is important to study Chemistry, either as a pure subject or part of Combined Science option.

MATHEMATICS

Additional Mathematics

Brief Description
Additional Mathematics, consists of 3 sections:

a. Algebra – This is an important branch of Mathematics that has strong links with all other branches of Mathematics. It will provide students with the language and tools to represent abstract ideas, relationships and patterns using concise symbols.

b. Geometry and Trigonometry – Geometry deals with points, lines (curves) and angles as well as their relationships and links. The learning of Geometry helps students develop the spatial visualisation skills, which complement and support the mathematical skills from other branches of Mathematics. Trigonometry supports the learning of Geometry and is important in the studies of periodic behaviour, phenomena and models that they may encounter in higher learning.

c. Calculus – Calculus is an important branch of Mathematics and deals with the concept of change. It is used in many fields of study including the physical sciences, computer science, economics, business, engineering and medicine. It deals with abstract concepts and processes involving infinitesimal quantities and changes and limiting operations. As such, this section demands a strong foundation in Algebra and Geometry from the student.

Prerequisites
Students who have obtained **C5 in Mathematics** at Secondary 2 Express level can consider opting for 'O' level Additional Mathematics. In addition, a hardworking attitude and much perseverance is needed because Additional Mathematics requires regular work and much practice to master. The student also has to be strong in Algebra and Geometry to cope with the subject.

Post-Secondary Options
The syllabus will prepare you for 'A' Level H2 Mathematics and H3 Mathematics, which builds a strong foundation in algebraic manipulation and mathematical reasoning skills.

In addition, many courses[1] in the polytechnics also require students to have a strong foundation in Mathematics. While students with Additional Mathematics background may cope with the courses better, most of these courses do not require Additional Mathematics as a prerequisite.

HUMANITIES

Humanities is a compulsory subject. It consists of **Social Studies** and an elective, which can be Geography Elective or History Elective. Below are the description of the electives.

Geography Elective (Not to be offered with Pure Geography)	**History Elective**
Geography Elective is offered as an elective component together of Humanities. It is taken together with the compulsory component, Social Studies. **Brief Description** The Geography Elective involves the study of both Physical and Human Geography. Students will learn about the world's human and physical features and the relationships between people, places and the earth. It shows how the world is connected and how the occurrence of one event in one place affects a person's life in another place. It is a study of the surface of the earth, its diverse landscapes, its features and natural phenomena and human activities. Students will learn: • the features and formation of landforms in the physical landscape • the relationships between people and their environment • the development and management of the physical and human environments • case studies of different physical-human relationships • problem-solving skills • map reading skills in context of the physical and human environment **For students who…** have a keen interest in seeking an understanding of the surroundings and happenings and the inter-relationships between people and the environment. **Post-Secondary Options** Students can continue to pursue the subject in greater depth as an 'A' Level subject. Students seeking admission to Junior Colleges (JCs) will need to include the Humanities grade in their L1R5 aggregate computation. For application to Business-related Polytechnic courses, Humanities counts as one of the relevant subjects in computing the ELR2B2 aggregate.	History Elective is offered as an elective component of Humanities. It is taken together with the compulsory component, Social Studies. **Brief Description** The History syllabus provides students with an understanding of the complexities of international relations. It highlights the importance of understanding and interpreting history in all its complexity – its people, events, issues, periods, turning points, themes and sources. The syllabus also equips students with the necessary skills to make reasoned and informed decisions. Students will learn: • World War I and the immediate aftermath • Peacemaking and the rise of authoritarian regimes • War in Europe and War in Asia Pacific • The outbreak and escalation of the Cold War and the end of Cold War **For students who …** • have an interest in current affairs • are interested in how human actions and political events shape our world • are able to carry out independent research and learning **Post-Secondary Options** Students can continue to pursue the subject in greater depth as an 'A' Level subject. Students seeking admission to Junior Colleges (JCs) will need to include the Humanities grade in their L1R5 aggregate computation. For application to Business-related Polytechnic courses, Humanities counts as one of the relevant subjects in the computing of the ELR2B2 aggregate.

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[1] Most of the polytechnic courses, especially courses from the Engineering, IT, Applied Sciences, Digital Media and Design schools in the polytechnics, require students to have a strong foundation in Mathematics. The exceptions are courses from Business, Mass Communications and other related courses.

PURE HUMANITIES
(To be offered as a second optional humanity subject)

Geography

Geography may not be offered together with Humanities Geography Elective. It is offered as a second optional Humanity subject in addition to the compulsory Humanities subject.

Brief Description
Geography involves the study of both Physical and Human Geography at a greater depth compared to the Geography Elective subject. Students will learn about the world's human and physical features and the relationships between people, places and the earth. It shows how the world is connected and how the occurrence of one event in one place affects a person's life in another place. It is the study of the surface of the earth, its diverse landscapes, its features and natural phenomena and human activities.

Students will learn:
- the features and formation of landforms in the physical landscape
- the relationships between people and their environments
- the development and management of the physical and human environments
- case studies of different physical-human relationships
- problem-solving skills
- map reading skills in the context of the physical and human environments

For students who…
- have obtained **A2 for Geography** at the Secondary 2 Express level.
- have a keen interest in seeking an understanding of the surroundings and happenings and the inter-relationships between people as well as the environment.

Post-Secondary Options
Students can continue to pursue Geography in greater depth as an 'A' Level subject. Secondary school Geography provides foundational knowledge in the study of Geography at H2 or H3 level, in Junior Colleges (JCs). Students seeking admission to JCs or Millennia Institute (MI) can include the Geography grade for their L1R5 or L1R4 aggregate computation respectively. Geography counts as a relevant subject in the computing of the ELR2B2 aggregate for Business-related courses in Polytechnics.

Literature in English

Brief Description
Literature in English is offered as a second optional Humanity subject for Express Course students in addition to the compulsory Humanities subject.

The study of Literature offers a window to the exploration of areas of human concern and hence contributes to one's understanding of self and others. The Literature syllabus aims to develop students' ability to:

- Discover the joys of reading Literature and to become aware of new ways of perceiving the world around them;
- Explore the elements of different genres via the study of literary texts and to understand how these function in enabling literary works to achieve their desired ends;
- Select and interpret relevant material judiciously and to express ideas in coherent and clear English;
- Understand the importance of the contexts in which literary texts are written and understood; and
- Engage personally with texts, showing a strong intellectual and emotional awareness of themes, characters, settings and contexts.

Attendance at and participation in all supplementary and enrichment activities related to this subject (e.g. watching plays) are **compulsory**. These sessions are usually held in the afternoons, weekends and school holidays.

For students who…
- have an interest in and passion for Literature
- have obtained **A2 for Literature AND B3 for English Language** at the Secondary 2 Express level.

Post-Secondary Options

Literature in English is a **Humanity** subject and the grade can be used in the computation of the aggregate scores for entry into Junior Colleges (JCs) and polytechnics.

Most JCs offer Literature as one of its subjects. **Literature in English** provides students with a head start in the study of Literature at the GCE 'A' Level.

COURSEWORK

Art

Brief Description

The study of Art provides a foundation for understanding and evaluating aesthetic intention and artistic skills so as to develop Visual Literacy.

The subject content is structured around the domains of Perceiving, Communication and Appreciation. This framework provides the focus for the teaching and learning of Art.

At the lower secondary levels, Visual Art develops students' ability to explore creativity and their personal identities. Students explore different mediums of art and their unique qualities.

At the upper secondary levels, students acquire a deeper appreciation of art through:
  i) Studio Practice
  ii) Study of Visual Arts (SOVA)

In Studio Practice, students will experiment with techniques in drawing and painting.
In SOVA, students develop visual literacy and critical thinking skills such as analysis, interpretations and evaluation to provide them with the skills to inquire about Art.

Students learn about art concepts and styles through the study of artists and artworks. They learn to interpret images along 3 broad themes: Art as narrative and inspiration, Art as Expression and Identity, Art as Communication and Design.

The art programme strives to provide students with authentic experiential learning through programme tie-ups with external art learning institutions and art competitions.

For students who …
- have a keen interest in Design, Fine Art, Computer and Print Media
- are self motivated and hardworking
- are thrilled to experiment with different art media and techniques

Examination Requirements

'O' Level Examination
Coursework (60%):   8 presentation boards & 1 final art piece.
Drawing & Painting (40%):   3 hour paper. 5 A3 sized sheets of preparatory work to be brought into the examination venue.

Post-Secondary Options
Students can choose to do Art as one of their 'A' Level subjects in some of the Junior Colleges. The subject also counts as one of the relevant subjects for polytechnic courses such as Architecture, Landscape Architecture and Interior Design. Students could also choose to further develop their passion in arts with Nanyang Academy of Fine Arts (NAFA) or with LASALLE-SIA College of the Arts.

Design and Technology

Brief Description

Design and Technology (D&T) at the upper secondary level emphasises design that involves research, reasoned application of knowledge and skills in areas of design and technology. Students will then combine the knowledge and skills acquired in the realisation of their Design Project.

The subject requires students to apply appropriate knowledge of materials, processes and technological areas in creating a design solution. It also provides students with opportunities to relate D&T to other subjects and apply their understanding from Science, Mathematics and Art, etc,

Skills like creativity, innovation, communication, critical thinking, collaboration and problem solving will also be taught through purposeful design tasks in the curriculum. These skills are applicable in other subject areas.

In a D&T coursework, students are guided in the design process. A Design Journal is a portfolio that reflects a student's thinking processes while working towards the design solution from the conceptualisation, development to realisation. Students will also need to demonstrate their competency in graphical communication, sensitive use of materials and appropriate constructional methods through the submission of Presentation Boards and an Artefact for their final design proposal.

For students who …
- like to doodle, have strong inclination for designing and problem solving. Students doing this subject must have good self-discipline and perseverance to work through the essential processes of researching, discovering, creating and evaluating.

Examination Requirements

'O' Level Examination
Coursework (60%):   1 Artefact, 2 Presentation Boards & 1 Design Journal.
Theory (40%):   A 2 hour paper consisting of 2 sections.

Post-Secondary Options
The D&T subject provides foundational knowledge for students opting for Engineering or design-related Courses. It is accepted as one of the relevant subjects for application to Science-based courses, Technology courses and Design courses in the local polytechnics.

Nutrition and Food Science

Brief Description
At lower secondary, students study Food and Consumer Education, in which they learn basic facts about food, nutrients and food science. At upper secondary, they learn in greater depth about food science and nutrition.

In Nutrition and Food Science (NFS), students learn the basics of the food chemistry, human digestion and absorption of food. Acquiring these basics will enable them to study food and nutrition from a scientific point of view, equipping them with the understanding of what foods are essential to health and what happens to food during processing.

The coursework component in the subject involves application of knowledge to analyse, research and develop on a given task. Students plan and execute the task, after which they need to review the processes involved. Students are also developed in their ability to plan, execute, record, interpret findings and draw logical conclusions from experimental work.

For students who …
- have an interest in nutrition and health problems associated with diet
- enjoy testing and experimenting with food
- are able to carry out independent research learning
- advocates sustainable food consumption by planning and making appropriate food choices

Examination Requirements

'O' Level Examination
Coursework (60%):   An assignment given at the beginning of the examination year to be completed by July of the same year. This will include conducting a Food Investigation and doing a practical examination.
Theory (40%):   A 2 hour written paper consisting of three sections.

Post-Secondary Options
Students seeking admission to Junior Colleges (JCs) or Millennia Institute (MI) can include the Nutrition and Food Science (NFS) grade for their L1R5 or L1R4 aggregate computation respectively. For application to polytechnic courses such as Sports and Exercise Science, Applied Food Science and Health Sciences, NFS counts as a relevant subject in the computing of ELR2B2.

Computing

Computing

Brief Description
The 'O' level Computing curriculum aims to grow student's interest and competency in advanced computing concepts and skills. This will equip students with the necessary foundation to continue with post-secondary computing-related courses in either JC or Polytechnic.

The two-year course at the upper secondary levels is to enable students to:
1. Apply logical reasoning and algorithmic thinking in analysing problem situations and developing solutions;
2. Develop simple programs through the use of appropriate programming language(s);
3. Understand how and where information communications technology (ICT) is used in daily life;
4. Understand and explain the ethical, social and economic issues associated with the use of ICT.

Students can handle and process data in computer systems, as well as appreciate the need to be ethical when dealing with data. They will demonstrate problem-solving techniques through analysing and writing programming solutions for a range of computing problems in business, education, mathematics and science. Students will be able to demonstrate computational thinking through the design and development of programming solutions.

This syllabus comprises four modules and the units of study for each module are as listed with details below. The study is undertaken at the upper secondary levels for two years.

The four modules are:
Module I – Data and Information
☐ Data Management
☐ Data Representation
☐ Ethical, Social and Economic Issues
Module III – Abstraction and Algorithms
☐ Problem Analysis
☐ Algorithm Design

Module II – Systems and Communications
☐ Computer Architecture
☐ Data Communications
Module IV – Programming
☐ Program Development
☐ Program Testing

Examination Requirements
'O' Level Examination

Paper 1 (80 marks) 70%	A mixture of • Short-answer questions • Matching questions • Cloze passage • Structured questions	2 hours
Paper 2 (50 marks) 30%	4 compulsory structured questions on • Use of spreadsheet functions and features • Refinement of programme • Debugging of programme • Development of programme with no more than 40 lines of code	2 hours 30 minutes

Post-Secondary Options
Students can choose to do Computing as one of their 'A' Level subjects in some of the Junior Colleges. Students seeking admission to Junior Colleges (JCs) or Millennia Institute (MI) can include the Computing grade for their L1R5 or L1R4 aggregate computation respectively. For application to related polytechnic diploma courses, Computing counts as one of the relevant subjects in the computing of the ELR2B2 aggregate.

Principles of Accounts

Principles of Accounts

Brief Description

The subject aims to develop an understanding of the principles and concepts of accounting and their applications in a variety of business situations. Candidates will acquire basic knowledge in double entry and develop the ability to prepare, present, analyse and interpret financial statements.

The syllabus is organised into **six** sections:
(i)   role of accounting, which is to provide information for monitoring and decision making by different users;
(ii) double entry system of book-keeping which comprises the accounting equation, source documents, books of prime entry, the cash book, the general journal, the ledger and the trial balance;
(iii) accounting procedures regarding capital and revenue expenditure, depreciation, adjustments to ledger accounts, correction of errors and control accounts;
(iv) fundamentals of preparing the final accounts i.e. Trading Account, Profit and Loss Account, Balance Sheet and the operation of partnerships;
(v) preparation of final accounts for sole traders and partnerships, including the use of incomplete records; and
(vi) analysis and interpretation of final accounts involving ratios.

Examination Requirements

'O' Level Examination

Paper 1	**3 to 4 compulsory structured questions (40 marks)**	1 hour
Paper 2	**4 structured questions (60 marks)** Section A (48 marks): 3 compulsory structured questions including 1 question on final accounts Section B (12 marks): Choose 1 out of 2 structured questions	2 hours

Paper 2 Section A will have one question on the preparation of final accounts, which carries 20 marks.

Post-Secondary Options

Students seeking admission to Junior Colleges (JCs) or Millennia Institute (MI) can use Principles of Accounts grade in the computation of L1R5 or L1R4 respectively. For application to polytechnic courses that are not Science and Technology-based, Principles of Accounts counts as a relevant subject in the computing of ELR2B2.

POST-SECONDARY EDUCATION OPTIONS

After 'O' Levels
- Pre-University – Junior Colleges (2 years) or Millennia Institute (3 years)
- Polytechnics
- Institute of Technical Education

■ Comparison Between Junior College and Polytechnics

Junior College	Polytechnics
2-year course	3-year course
Knowledge-based subjects	Market-driven and career-oriented courses
Preparation for university admission	Preparation for further education and the workforce
GCE 'A' Level qualification	Diploma in the major
Structured & disciplined learning environment	Dynamic and progressive learning environment

For those who are considering between a JC education and a Polytechnic education, it is important to note that the JC curriculum is more academic and broad-based, similar to the secondary school curriculum. On the other hand, students who pursue a polytechnic education will have an early route to specialisation in their field of interest, which they can deepen if they proceed to university.

Bonus Points for entry to JC/MI/Poly/ITE
Bonus points are given to students in the computation of their net aggregates. These bonus points are for ranking of students during posting.

	Type of Bonus Points	No. of Bonus Points Available	Maximum Bonus Points Allowable
1	Students seeking admission to **JC/Poly/ITE** and with the following **CCA grades**:		4 points for JC/MI
	Excellent (student attains min level 3 in all 4 domains with at least a level 4 in one domain)	2 points	
	Good (student attains a min level 1 in all 4 domains with any one of the following: at least level 2 in 3 domains; at least level 2 in 1 domain and at least level 3 in another domain; or at least level 4 in one domain)	1 point	2 points for Poly/ITE
2	Students seeking admission to **JC/MI** with grades of **A1-C6 for both languages**. (English Language & Higher Mother Tongue)	2 points	

Junior Colleges - L1R5 must be 20 points and below.

Requirements of Core Subjects	*Relevant Subjects for L1R5*
• English Language (A1-C6) • Mother Tongue (A1-D7) • Math or Add Math (A1-D7)	L1: EL / Higher MT R1: Humanities R2: Math / Science R3: Humanities / Math / Science R4 Any 'O' Level subject except CCA R5: Any 'O' Level subject except CCA

Millennia Institute - L1R4 of 20 points and below

Requirements of Core Subjects	*Relevant Subjects for L1R4*
• English Language (A1-C6) • Mother Tongue (A1-D7) • Math or Add Math (A1-D7)	L1: EL / Higher MT R1: Humanities / Math / Science R2: Humanities / Math / Science R3: Any 'O' Level subject except CCA R4: Any 'O' Level subject except CCA

Entry Requirements For Poly
Calculation of ELR2B2 varies according to the 4 courses groups – A, B, C, and D. Students and parents can access the websites of their preferred polytechnics to find out how the courses of choice have been mapped into the various groups.
ELR2B2, i.e. English Language (EL) + 2 Relevant Subjects (R2) + 2 other Best Subjects (B2) excluding co-curricular activities (CCA).

Course Group		ELR2B2-A	ELR2B2-B	ELR2B2-C	ELR2B2-D
EL		English			
R2	1st Group of Relevant Subjects	Elementary Mathematics Additional Mathematics			
	2nd Group of Relevant Subjects	Art Design & Technology Nutrition and Food Science Principles of Accounts Humanities Geography History Literature in English	Art Principles of Accounts Humanities Geography History Literature in English	Design & Technology Food & Nutrition Computing Biology Chemistry Physics Science (C/B) Science (P/C)	Art Design & Technology Nutrition and Food Science Computing Biology Chemistry Physics Science (C/B) Science (P/C)
B2		Best 2 other subjects excluding CCA			

For information on other Institutions:	
LASALLE	www.lasalle.edu.sg
Nanyang Academy of Fine Arts	www.nafa.edu.sg
ITE Institute of Technical Education : Higher National ITE Certificate (Higher *Nitec*)	www.ite.edu.sg
SHATEC : The Singapore International Hotel and Tourism College	www.sha.org.sg
CITI : Construction Industry Training Institute	www.bca.gov.sg/citi/

2Express Subject Combination Code

E11
EL1
MTL
MATHS
A MATHS
CHEMISTRY

1st Elective Subject:

SS+GEOG
SS+HIST

2nd Elective Subject:

PHYSICS
BIOLOGY

E21
EL1
MTL
MATHS
A MATHS
COMPUTING

1st Elective Subject:

SS+GEOG
SS+HIST

2nd Elective Subject:

SCI(P,C)
SCI(C,B)

E22
EL1
MTL
MATHS
A MATHS
D&T

1st Elective Subject:

SS+GEOG
SS+HIST

2nd Elective Subject:

SCI(P,C)
SCI(C,B)

E23
EL1
MTL
MATHS
A MATHS
NFS

1st Elective Subject:

SS+GEOG
SS+HIST

2nd Elective Subject:

SCI(P,C)
SCI(C,B)

E24
EL1
MTL
MATHS
A MATHS
ART

1st Elective Subject:

SS+GEOG
SS+HIST

2nd Elective Subject:

SCI(P,C)
SCI(C,B)

E25
EL1
MTL
MATHS
A MATHS
GEOG
SS+HIST

1st Elective Subject:

SCI(P,C)
SCI(C,B)

E26
EL1
MTL
MATHS
A MATHS
LIT(E)

1st Elective Subject:

SS+GEOG
SS+HIST

2nd Elective Subject:

SCI(P,C)
SCI(C,B)

E31
EL1
MTL
MATHS
POA
COMPUTING

1st Elective Subject:

SS+GEOG
SS+HIST

2nd Elective Subject:

SCI(P,C)
SCI(C,B)

E32
EL1
MTL
MATHS
POA
D&T

1st Elective Subject:

SS+GEOG
SS+HIST

2nd Elective Subject:

SCI(P,C)
SCI(C,B)

E33
EL1
MTL
MATHS
POA
NFS

1st Elective Subject:

SS+GEOG
SS+HIST

2nd Elective Subject:

SCI(P,C)
SCI(C,B)

E34
EL1
MTL
MATHS
POA
ART

1st Elective Subject:

SS+GEOG
SS+HIST

2nd Elective Subject:

SCI(P,C)
SCI(C,B)

E35
EL1
MTL
MATHS
POA
GEOG
SS+HIST

1st Elective Subject:

SCI(P,C)
SCI(C,B)

E36

EL1
MTL
MATHS
POA
LIT(E)

1st Elective Subject:

SS+GEOG
SS+HIST

2nd Elective Subject:

SCI(P,C)
SCI(C,B)

Peirce Secondary School

SUBJECT OPTIONS EXERCISE FORM

Secondary 3 Express (2023)

Name : Mary Yu (1)   **Class** : 2 Care

	EL	HCL	Geog	Hist	Lit(E)	Math	Sci	Art	D&T	FCE		Ave
	**1st Semester Results**	
Marks	69	52	75	67	60	76	53	69		73		65.6
Grade	B3	C6	A1	B3	B4	A1	C6	B3	VR	A2		

Eligibility to Opt for Subject Combinations

There are eligibility criteria which are applied to either (i) individual subject within an offered combination or (ii) subject combination as a whole. The table below summarises the criteria used to determine if a subject combination is available during the subject options exercise. The final allocated combination is based on merit and students' order of preference. Note: SS+Geog cannot be offered together with Geography.

SN	Subject	Criteria
1	Additional Mathematics	EITHER C5 or better in Sec 2E Mathematics OR 80 marks or better in Sec 2A Mathematics
2	Pure Sciences	B3 or better in Science
3	Literature	B3 or better in English AND A2 or better in Literature
4	Geography	A2 or better in Geography [Must not be offered with SS(G)]
5	Computing	C5 or better in Mathematics

Personalised Subject Combination

Based on the criteria listed above, the subject combinations which you are eligible to opt for during the online subject options exercise is found in the list below. Before entering your choices into the e-streaming module, do use this list to discuss with your parents the order of preference based on your strengths and interests. Please ensure that the choices made in this report are transferred accurately as final subject options exercise results will be determined based on the information entered online.

SN	Option	Courses	Eligible
1	E11	Double Pure Science	
2	E21	A Math, Computing, Combined Science, Combined Humanities	√
3	E22	A Math, D&T, Combined Science, Combined Humanities	√
4	E23	A Math, NFS, Combined Science, Combined Humanities	√
5	E24	A Math, Art, Combined Science, Combined Humanities	√
6	E25	A Math, Geog, Combined Science, SS+Hist	√
7	E26	A Math, Lit(E), Combined Science, Combined Humanities	
8	E31	Computing, Combined Science, Combined Humanities	√
9	E32	D&T, Combined Science, Combined Humanities	√
10	E33	NFS, Combined Science, Combined Humanities	√

Peirce Secondary School
SUBJECT OPTIONS EXERCISE FORM
Secondary 3 Express (2023)

Name : Mary Yu (1)   **Class** : 2 Care

SN	Option	Courses	Eligible
11	E34	Art, Combined Science, Combined Humanities	√
12	E35	Geog, Combined Science, SS+Hist	√
13	E36	Lit(E), Combined Science, Combined Humanities	

Portal URL : https://peirce.schoolhub.sg   **Username** : 2C_01_22

Password : 1T335272

	1st Choice	2nd Choice	3rd Choice	4th Choice	5th Choice	6th Choice
Option						
Elective						

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