



FUCHUN SECONDARY SCHOOL

**SECONDARY 2
STREAMING ONLINE
SELECTION EXERCISE
2022**

**INFORMATION BOOKLET
ON ELECTIVE SUBJECTS
(NORMAL ACADEMIC)**

**ITEM****PAGE**

Subject Combinations	3
Additional Mathematics	4
Art	5
Design and Technology	6
Food and Nutrition	7
Combined Humanities	8
Entry to Polytechnic	11
Common FAQs	15

Please note that all information is accurate at the point of printing.

CONTENTS



SUBJECT COMBINATIONS

SUBJECTS OFFERED IN 2023

1. English Language
2. MTLs
3. Mathematics
4. Science (Physics & Chemistry)
5. D&T *or* Art *or* NFS *or* A Math
6. Social Studies & History *or*
Social Studies & Geography *or*
Social Studies & Literature

Please note that eligibility does not automatically guarantee that the choice will be given.

The overall results and the number of vacancies available need to be taken into account too.



ADDITIONAL MATHEMATICS

WHAT WILL BE COVERED IN SECONDARY 3/4

The syllabus content is organised into three strands, namely, Algebra, Geometry and Trigonometry, and Calculus. Besides conceptual understanding and skill proficiency explicated in the content strand, the development of process skills, namely, reasoning, communication and connections, thinking skills and heuristics, and applications and modelling are also emphasised.

SKILLS REQUIRED

Strong foundation in algebraic manipulation skills and mathematical reasoning skills

OPPORTUNITIES AT POST-SECONDARY EDUCATION

For students planning to study in a junior college (only at Secondary 5):

Students need to include at least one Mathematics subject in their L1R5. He/She may include both Additional Mathematics and Elementary Mathematics. The Additional Mathematics syllabus also prepares students adequately for A Level H2 Mathematics.

For students planning to study in a polytechnic:

Students may include both Additional Mathematics and Elementary Mathematics. Most polytechnic courses require the applicant to include at least one Mathematics subject.

CAREER PROSPECTS

Expect career opportunities in many diploma or degree courses including engineering, accountancy, finance, banking, business management, architecture and many others.



WHAT WILL BE COVERED IN SECONDARY 3/4

- Experiment on different mediums
- Develop individual Ideas & preferences
- Exposure to local/foreign artists' works
- Coursework
 - Paper 1: A2—A1 art piece + 5 A2-sized boards preparatory work
 - Paper 2: 3 hours with 5 pieces of A3-sized preparatory boards

SKILLS YOU WILL LEARN

- Drawing, colouring and painting
- Creativity and personal touch
- Thinking out of the box
- Critical thinking
- Fortitude and motivation to finish art pieces
- Be more independent in learning

OPPORTUNITIES AT POST-SECONDARY EDUCATION

At Tertiary level (University, Polytechnics) or ITE:

Art is useful if you would like to pursue a course which involves a level of creative work (e.g. Animation, Photography, Videography, Website design, Product design, Game/software design, Fashion Design and Advertising). You need a good knowledge of the Elements of Arts & Principles of design, to create interesting compositions.

It is a possible to go for the above-mentioned courses without pursuing 'N' Level Art. However, most of these courses will require you to take on basic Art classes. Art students will definitely have an advantage over other candidates. On the other hand, Art schools such as, Nanyang Academy of Fine Arts (NAFA), require candidates to sit through an Art examination before being accepted as a student.

At ITE, knowledge in Art will be useful should you wish to pursue a Higher NITEC in Games Art and Design, or a NITEC in Digital Animation, Product Design and Visual Communication.

CAREER PROSPECTS

Children's/Adult Art Therapist (Psychiatrist), Museum Curators, Conservator/Restoration of museum pieces



DESIGN AND TECHNOLOGY

WHAT WILL BE COVERED IN SECONDARY 3/4

- Higher complexity involved in Artefact Realisation
- Requires the mastery of workshop equipment and processes
- Detailed research and analysis to understand the needs of the situation.
- Generating annotated sketches that help students think through their solutions
- Coursework (70%) + Theory (30%)

SKILLS YOU WILL LEARN

- Sourcing and collating information
- Record observations
- Analysing and making Interpretations
- Producing clear sketches that communicate ideas visually
- Writing clearly to express one's thinking
- Generating creative and innovative solutions that solve identified needs

OPPORTUNITIES AT POST-SECONDARY EDUCATION

For students planning to study in a junior college (only at Secondary 5):

While not directly relevant to any H2 subject in Junior College, skills obtained in the study of Design and Technology is relevant and useful in H1 Project Work.

For students planning to study in a polytechnic:

Design and Technology is one of the subjects that is required to be read should the student wish to take up courses in the area of Engineering, Design or Architecture.

For students planning to study in ITE:

Having knowledge in the processes learnt during the study of Design and Technology will greatly assist the student in design courses in ITE. Other courses that have some relevancy to Design and Technology include Medical Technology, Aerospace Technology and Electrical/Electronics Technology.

CAREER PROSPECTS:

Expect career opportunities in engineering, architecture, digital animation and design.



NUTRITION AND FOOD SCIENCE

WHAT WILL BE COVERED IN SECONDARY 3/4

- Coursework (60%)
 - Conducted during curriculum (25 hrs)
 - 20 page report detailing the investigative study made on a given question
- Theory (40%)
 - The principles of nutrition and the concept of a balanced diet in meal planning
 - The relationship between nutrition and health
 - Making informed food choices regarding a healthy diet
 - The basic principles underlying food preparation

SKILLS YOU WILL LEARN

- Research and investigating
- Synthesising information
- Analytical skills
- Drawing conclusions and providing scientific reasons for outcomes
- Writing a report to substantiate findings

OPPORTUNITIES AT POST-SECONDARY EDUCATION

Nutrition and Food Science (NFS) is not offered at 'A' Levels. Students who are considering taking the 'A' level route but are interested in taking up NFS because of an interest in careers that are related to NFS can still consider pursuing the subject at 'O' levels. It serves as a good foundation of knowledge should they choose to pursue a degree overseas after the 'A' level exams.

Relevant Polytechnic courses include Food Science and Technology, Nutrition, Health and Wellness, Applied Food Science & Nutrition, Baking & Culinary Science, Pharmaceutical Science, Food Science & Nutrition, Nursing and Pharmacy Science.

At NITEC, NFS may serve as an advantage should the student pursues a course such as Applied Food Science, Culinary Arts and Pastry and Baking.

CAREER PROSPECTS:

Expect career opportunities as chefs, bakers, dieticians, nutritionists, pharmacists, Food Technologists, teachers, lecturers and nurses.



COMBINED HUMANITIES

WHAT WILL BE COVERED IN SECONDARY 3/4

Social Studies

Social Studies seeks to develop the competencies of our students to be informed, concerned and participative citizens by the end of a 10-year Social Studies education. These competencies encompass the body of knowledge, skills and values expressed in the Philosophy of Social Studies and they are elaborated below.

As ***informed*** citizens, students would:

- understand their identity as Singaporeans with a global outlook;
- understand different perspectives;
- view the world with an understanding of the Singapore perspective;
- apply reflective thought in making quality decisions;
- analyse, negotiate and manage complex situations; and
- evaluate information, consider different viewpoints and exercise discernment in reaching well-reasoned conclusions and making responsible decisions.

As ***concerned*** citizens, students would:

- have a sense of belonging to their community and nation;
- appreciate the importance of engaging in issues of societal concern;
- be committed to building social cohesion by appreciating diversity in society; and
- have an awareness of the ethical considerations and consequences of decision-making.

As ***participative*** citizens, students would:

- be motivated to identify issues of concern and take action;
- be resilient in addressing concerns of the community or society in spite of challenges faced; and
- be empowered to take personal and collective responsibility for effecting change for the good of society, and serve to make a positive difference to others.

History

History education seeks to develop in students a critical appreciation of past human experiences and connections between the past and present. In a world where attention is often divided between



concerns over the present and future, the relevance of History is often questioned. Learning to manage the present and anticipate the future would not be possible without knowing the past. By equipping students with knowledge and attributes, History allows students to draw connections between the past and present by understanding how the nature and impact of past developments explain today's world. History does so by helping learners to become balanced, discerning, empathetic, enquiring, knowledgeable and methodical individuals able to make well-reasoned arguments and decisions.

Geography

Geography builds on students' experiences and prior knowledge to examine the physical and human phenomena found on Earth as well as their complex interactions and patterns across space. Geography emphasises the integrative study of physical and human environments to enable students to gain a better understanding of their own space and other parts of the world. It also focuses on the interconnectedness among groups of people, and between people and their environment.

Literature

In Literature, students will discover the joys of reading Literature and become aware of new ways of perceiving the world around them, appreciate the aesthetic value of language and engage personally with a variety of texts and draw connections between self, texts and the world in order to develop intellectual, emotional, socio-cultural, and global awareness. Students will also be able to articulate perceptive and analytical thinking when discussing and writing about literary texts, explore how the elements of different genres function in literary works to achieve specific effects and appreciate the importance of the contexts in which literary texts are written and understood.

In short, students will not only learn to critically appreciate the subtleties of the written word and deconstruct writers' intentions and impact, but also become aware that literature is more than a discipline. It is a lens through which we examine and understand ourselves and life itself.



COMBINED HUMANITIES

SKILLS YOU WILL LEARN

History and Geography

Students need to infer, compare information, test source reliability as well as evaluate the sources. Also, students need to gather and analyse information with an enquiring mind to seek answers cognisant of the varying perspectives to issues affecting our lives and the world we live in.

Literature

Student who complete the course in Literature will be:

- empathetic and global thinkers who are open to multiple perspectives through the study of texts from different parts of the world;
- critical thinkers who will appreciate the aesthetic value and enjoy the nuances of language, with perspective and questioning minds;
- creative meaning-makers who embrace ambiguity and uncertainty as necessary in the meaning making process;
- convincing communicators who convince others of their interpretations, based on sound reasoning with evidence,

OPPORTUNITIES AT POST-SECONDARY EDUCATION

For students planning to study in a junior college (only at Secondary 5):

Humanities is a relevant subject required in L1R4/5. This is also important for students intending to study A Level H2 History, Geography or Literature at the advanced level.

For students planning to study in a polytechnic:

Humanities is a relevant subject for all business courses. Skills obtained in the course of study of Literature will be useful should the student be interested in taking up courses in mass media, broadcast or journalism.

CAREER PROSPECTS:

Expect career opportunities as a Foreign Correspondent, Lawyer, Journalist, Linguist, Interpreter, Curator, Teacher, Tourism related fields, Public Relations, Human Resource.



ENTRY TO POLY

Entry to Polytechnic

An aggregate of ELMAB3 is used for admission into PFP and DPP.

Polytechnic Foundation Program (PFP)	Direct –Entry–Scheme to Polytechnic Diploma (DPP)
<p><u>One year program</u> that offers a practice-oriented curriculum to prepare poly-bound NA students for entry into the relevant poly course.</p>	<p>A <u>two-year Higher Nitec Course</u> at the ITE, which subsequently <u>guarantees a place in a mapped polytechnic diploma course</u> if you achieve the qualifying Grade Point Average (GPA) scores in the course.</p>
<p><u>ELMAB3 ≤ 12</u> (excluding CCA bonus points) and EL≤3 and MA≤3. Some courses may require relevant subject ≤3 and/or EL≤2.</p>	<p><u>ELMAB3 ≤ 19</u> (excluding CCA bonus points) and</p> <ul style="list-style-type: none"> • EL≤4 and MA≤4 for Applied Sciences Engineering and Info-Comm courses , • EL≤3 and MA≤4 for Business and Services courses .
<p>Eligible N(A) students will be invited to apply after the release of N level results .</p>	
<p>Bonus points can be used in computing ELMAB3 net aggregate score for selection and posting to the PFP or DPP.</p>	

Example

For a student who achieves Grade 2 in every subject and achieves an Excellent CCA grade,

Subject	Grade	Subject	Grade
EL	2	Math	2
Humanities	2	D & T	2
Science	2	CCA	Excellent

Total ELMAB3: 10 points

With CCA bonus points, aggregate score: $10 - 2 = 8$



ENTRY TO POLY (VIA O LEVEL)

Entry to Polytechnic (Via O Levels)

Aggregate of ELMAB3 is used for progress to Secondary 5 Normal (Academic).

Students must obtain ELMAB3 ≤ 19 and pass EL and Math.

With their O Level results, students will use their results to gain admission into Junior Colleges/Central Institutes or the Polytechnics.

For Polytechnic, the aggregate of ELR2B2 is used for admission.

L1	English	
R1	Course A:	Art/Combined Humanities/Geography/History/Lit
	Course B, C, D	Elementary Math/Additional Math
R2	Course A:	Add Math/E Math/D&T/Combined Humanities/Lit
	Course B:	Art/Geography/History/Combined Humanities/Lit
	Course C, D	D&T/NFS/Chemistry/Physics/Biology/Combined Science
B2	Best 2 other subjects excluding CCA	

Course A: Humanities related courses

Course B: Business related courses

Course C: Science related courses

Course D: Design related courses

Bonus Points

Excellent CCA Grade = 2 bonus points

Good CCA Grade = 1 bonus point

Pass EL and Higher MT = 2 bonus points

Information on available polytechnic courses:

<https://www.moe.gov.sg/coursefinder>

The actual points differ for each polytechnic and may vary each year.



ENTRY TO JC/CI

Entry to Junior College

Aggregate of EL & 5 Relevant subjects (L1R5) must be less than or equals to 20 points.

L1—English/Higher Mother Tongue

R1—Humanities

R2—Math/Science

R3—Humanities/Math/Science

R4—Best other subject (excluding CCA and Religious Knowledge)

R5—Best other subject (excluding CCA and Religious Knowledge)

Entry to Centralised Institute

Aggregate of EL & 4 Relevant subjects (L1R4) must be less than or equals to 20 points.

L1—English/Higher Mother Tongue

R1—Humanities

R2—Math/Science

R3—Humanities/Math/Science

R4—Best other subject (excluding CCA and Religious Knowledge)

Bonus Points

Excellent CCA Grade = 2 bonus points

Good CCA Grade = 1 bonus point

Pass EL and Higher MT = 2 bonus points

Example

For a student who achieves B3 in every subject and achieves an Excellent CCA grade,

Subject	Grade	Subject	Grade
EL	B3	MT	B3
Math	B3	Add Math	B3
Humanities	B3	D & T	B3
Science	B3	CCA	Excellent

Total L1R5: 18 points

With CCA bonus points, aggregate score: $18 - 2 = 16$

COMMON FAQs



S/ N	Question	Answer
1	How do the students exercise their streaming options?	Students will log onto their student ICON e-mail to exercise their option. A briefing will be conducted for the students in October to provide them with more details.
2	What happens if a student did not exercise his/her online option during the required period?	The student shall forfeit his/her chance to exercise his/her option. The school shall allocate the student's class and subject combinations based on his/her merit and the course vacancy.
3	If a student is not allocated the combination/elective of his/her choice, can an appeal be made?	Yes, an appeal can be made within the stated appeal period. The success of the appeal depends on the student's merit, specific subject criteria and the course vacancy.
4	What happens if a student did not submit his/her appeal (if any) within the appeal period?	Late submission will not be accepted. The student shall forfeit his/her chance to make the appeal.
5	Is it possible for a student to change his/her subject in future?	Preparation for O/N Levels begins in Sec 3. It is not advisable for students to change their subject combinations at Sec 3/4.



COMMON FAQs

S/ N	Question	Answer
6	Is Additional Mathematics a compulsory subject for admission into JC or Polytechnic?	<p><u>Junior College</u> Students without Additional Mathematics usually offer A-Level H1 Mathematics. Additional Mathematics is an assumed knowledge for A-Level H2 Mathematics, however, different JCs have different criteria in offering H2 Mathematics.</p> <p><u>Polytechnic</u> Additional Mathematics is not compulsory for Polytechnic courses. For courses which require Mathematics as one of the relevant subjects, the Mathematics can be either Elementary Mathematics or Additional Mathematics (whichever has a better grade).</p>