

2022



OUR MISSION

Making Lives and Waking Hearts to serve the coming days
Family-Society-Eternity

OUR VISION

Home of Servant Leaders who bring life to the Nations

COLLEGE VALUES

Saints are principled servant-leaders, upholding the WISE and TRUE values that define who we are and how we act when we stand together as a village.

Wonder

A Saint is curious about the world. He wants to learn. A Saint asks questions.

Integrity

A Saint does right wherever he is, whomever he is with and whatever he is doing. He does right when no one is watching.

Self-discipline

A Saint wants to be known for his self-control. He perseveres because he wants to finish well.

Excellence

A Saint relentlessly strives to exceed personal best, celebrating high endeavour as its own reward.

Thanksgiving

A Saint is not a self-made man. He acknowledges that others constantly give effort and time for his benefit. He uses words and deeds to express gratitude.

Resilience

A Saint does not give up even when life is tough. A Saint does not quit. A Saint overcomes evil with good.

Unity

A Saint respects others especially those whom God has made differently from him. A Saint is humble.

Empathy

A Saint puts himself in the other person's shoes. A Saint speaks up and acts for those who are down.

QUALITIES OF A SAINT

EXEMPLARY CHARACTER

HOLISTIC THINKER

SKILLED COMMUNICATOR

COMMUNITY BUILDER

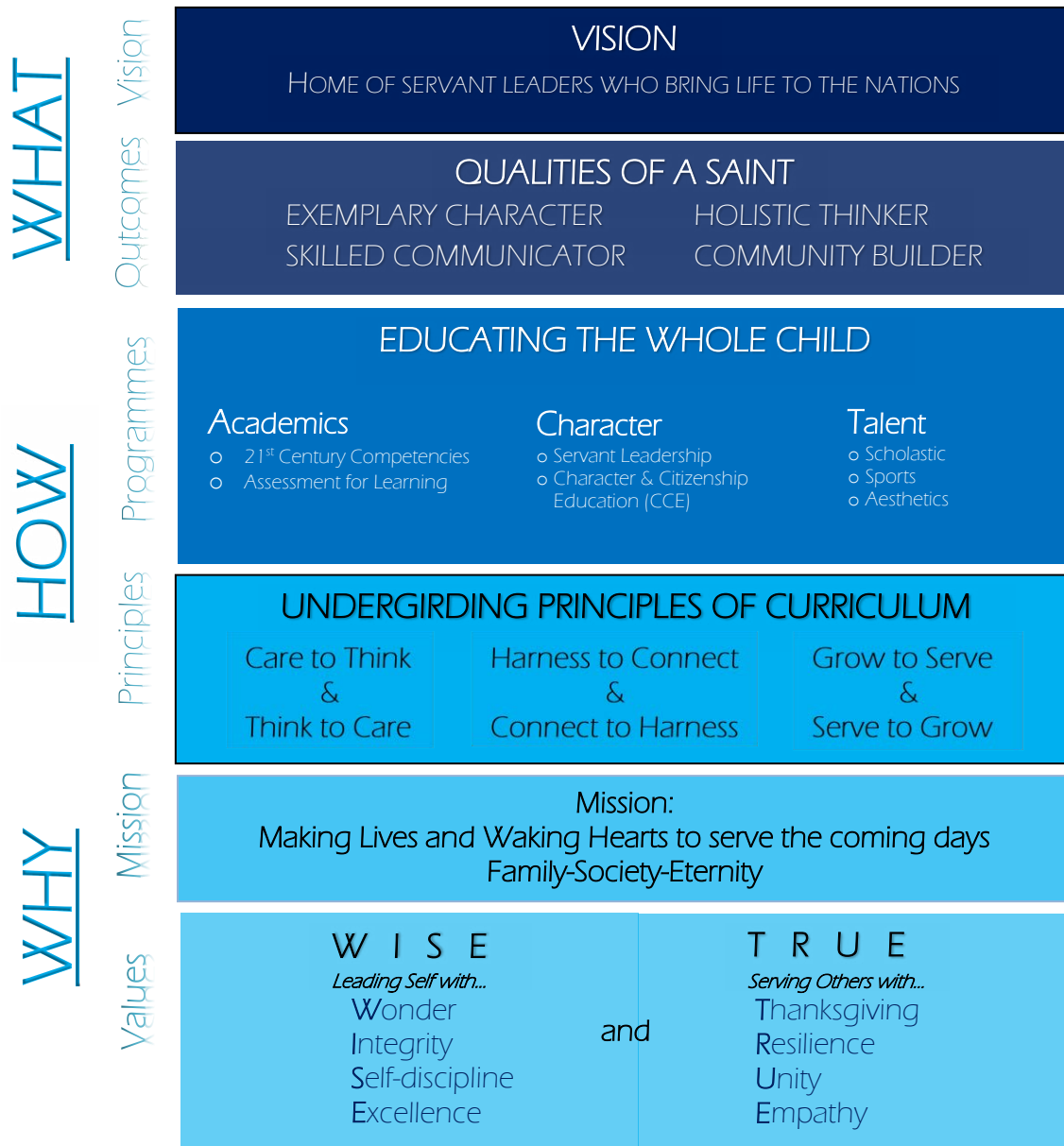
MOTTO

UP AND ON

Contents

Item	Page
St Andrew's Junior College Educational Philosophy and Framework	1
Course Information	8
3H2 Subject Combinations for 2022	8
4H2 Subject Combinations for 2022	10
H3 Subjects	10
2021 Indicative Grade Profiles	11
Admission Requirements into Local Universities	12
Indicative Grade Profiles for NTU/NUS/SMU/SUTD/SUSS/SIT for AY2021 / 2022 Admissions Exercise	13
Various Course Requirements in the Local Universities	16
Outline of Various Subjects	
<i>Knowledge Skills</i>	
- General Paper	42
- Project Work	43
<i>Mathematics</i>	
- Mathematics	45
<i>Sciences</i>	
- Biology	53
- Chemistry	55
- Physics	58
<i>Humanities & the Arts</i>	
- Art	61
- Economics	63
- Geography	65
- History	69
- Literature in English	73
- Chinese Language & Literature	75
- Tamil Language & Literature	77
<i>Mother Tongue Languages</i>	
- Chinese	78
- Malay	82
- Tamil	84
<i>Physical Education</i>	86

St Andrew's Junior College Educational Framework



In St Andrew's Junior College (SAJC), we believe in providing a holistic education that aims to nurture exemplary character and the talents of Saints so that they can contribute to nation-building and become powerful agents in creating a better future for all.

The SAJC Educational Framework is designed with key processes and institutional programmes aimed at the development of the whole child into the 21st century servant leaders who bring life to the nations. It takes cognizance of research into 21st century skills, the Ministry of Education's 2015 Competencies as well as the characteristics of servant leadership necessary for developing Saints who will be a blessing to their community.

The essence of the SAJC Educational Framework is distilled with three stem questions:

Why do we drive our Teaching and Learning?

How do we drive our Teaching and Learning?

What are the outcomes of our Teaching and Learning?

WHY do we drive our Teaching and Learning?

At the heart of the SAJC Educational Framework are the St Andrew's Village (SAV) values that serve as the *raison d'être* of our teaching and learning. Summed up by the acronyms WISE and TRUE, these deep-seated values propel Saints to lead self and to serve others. In turn, these values support our mission of "*Making Lives and Waking Hearts to serve the coming days -- Family-Society-Eternity*" where Saints are to leave their indelible mark of contributions to their families, society and the world.

HOW do we drive our Teaching and Learning?

Three undergirding principles serve as the bedrock of our curriculum design:

Care to Think & Think to Care – where students unite their hearts and minds to develop their full potential;

Harness to Connect & Connect to Harness – where students make connections with ideas and concepts and forge meaningful relationships with people around them;

Grow to Serve & Serve to Grow – where students become self-directed learners so that they can use their talents equipped with skills to serve others.

Together, these three principles guide the design of our curriculum where the whole child is educated. Each Saint's full potential is holistically developed with the pursuit of the *Academics*, the nurturing of their *Character* and the growth of their unique *Talents*.

WHAT are the outcomes of our Teaching and Learning?

Throughout their learning journey in SAJC, be it in their curriculum or co-curriculum activities, Saints will be nurtured to demonstrate the four Qualities of Saints (QoS): *Exemplary Character*, *Holistic Thinker*, *Skilled Communicator* and *Community Builder* as they immerse themselves experientially in our holistic curriculum.

As they graduate and leave the gates of SAJC, Saints will continue to embody these four qualities that will make them Saints for life where they will be servant leaders wherever they go, ready to serve the community, the nation and the world – realising our college's vision to be the Home of Servant Leaders who bring life to the Nations.

The Qualities of a Saint

- *Exemplary Character*

Servant Leadership differs from most other leadership models by virtue of the fact that it focuses on serving others before all else. Character development is the bedrock upon which all the other qualities are built upon.

In SAJC, character education comprises Social Emotional Learning (self-awareness, self-management, social awareness, relationship management and responsible decision making) and the internalisation of the College values, TRUE (Thanksgiving, Resilience, Unity and Empathy) and WISE (Wonder, Integrity, Self-Discipline and Excellence) in the lives of the Saints. These values are inculcated through SLEAD lessons, Scripture Readings, Chapel, and Co-curricular Activities and Programmes.

However, the most powerful mode of learning for being an exemplary character is through role-modelling and seizing teachable moments in our daily interactions.

- *Holistic Thinker*

“The aim of education should be to teach us rather how to think, than what to think - rather to improve our minds, so as to enable us to think for ourselves, than to load the memory with the thoughts of other men.”
- John Dewey

It is widely agreed by educators and philosophers that the paramount purpose of education is to develop thinking individuals with a heart who can make good decisions in their lives and work.

The "Holistic Thinker" is defined as one who makes good judgements by considering the big picture, innovates and provides practical solutions, envisions the future and is prepared flexibly for it. The 4 dimensions in Holistic Thinking advocated in SAJC are: Critical Thinking, Creative Thinking, Caring Thinking and Forward Thinking

All lessons and activities in SAJC have clear objectives which include the thinking skills to be taught or reinforced.

- *Skilled Communicator*

“A word fitly spoken is like apples of gold in pictures of silver.” - Proverbs 25:11

Effective and skilful communication is widely regarded as being one of the most important leadership skills and a core ingredient for personal and work success. Knowing the right thing to say and how to say it determines our leadership potential and ability to achieve positive outcomes.

To communicate effectively, we have to learn how to deploy our words, tone of voice, emotions and body language to connect with others. It is also the glue that holds our relationships together. Effective communication includes speaking, writing and listening with genuineness, respect and clarity. It involves the use of different modes of communication such as drama and art, as well as information technology to enhance the quality of communication.

In SAJC, we strongly believe in honing the communication skills of our staff and students in the instructional and co-curricular programmes. More than polishing the communication techniques through speech training and practice, we are mindful that the way we communicate reveals who we are as Saints. We aspire that every member of the St Andrew’s community be gracious in speech and seeks to edify one another in the challenges we face and new heights we scale together.

- *Community Builder*

“Education is a social process. Education is growth. Education is, not a preparation for life; education is life itself.” -John Dewey

Community building is defined as an ongoing process where members of a community share skills, talents, knowledge and experiences that strengthen or develop themselves and the community they belong to. A community builder actively takes actions aimed at problem solving and enriching lives, and strengthening relationships in their community.

Nurturing Saints to be community builders empowers them to become responsible adults who will continue to contribute to their communities, workplaces and the nation in the future. They will become Saints who embrace a life-long passion for serving others. As future leaders of the country, Saints must be energised to desire to make effective changes for the better and contribute to the society.

To be an effective community builder, every Saint needs to have a genuine interest and sincere concern for people and acquire a deep understanding of cultural and global literacies in order to reach out and engage both local and international friends.

In SAJC, we believe that ‘No one is here by chance’. Everyone therefore has a unique role to play in the College and in touching one another’s lives. To create a positive culture and a conducive environment for learning and relationship building, every member of the SAJC community is responsible for creating a caring and nurturing environment for learning and working. Everyone is expected to participate in service learning and community involvement programmes locally and/or overseas. In addition, international exchange programmes are also organised for Saints to develop cultural literacy and for enrichment.

Academics

• *Curriculum*

Besides developing the essential knowledge, skills and behaviours required for our Saints to continue to post-JC studies, the College’s formal and informal curriculum aims to develop the Saints in 4 identified Qualities: ***Exemplary Character, Holistic Thinker, Skilled Communicator and Community Builder***. The following key teaching and learning domains own and drive programmes to develop these 4 Qualities in the Saints:

Qualities of the Saints	Teaching and Learning Domains	
Exemplary Character	<ul style="list-style-type: none"> • SLEAD Programmes • Citizenship Education Programmes • Chapel & Scripture Reading 	<ul style="list-style-type: none"> • Co-curricular Activities and Programmes • Student Leadership • Student Well-being • Discipline
Holistic Thinker	<ul style="list-style-type: none"> • Co-curricular Activities and Programmes • Humanities • English Language • Information Technology • Mathematics • Mother Tongue Languages 	<ul style="list-style-type: none"> • SLEAD Education Programmes • National Education Programmes • Project Work • Sciences • Student Leadership
Skilled Communicator	<ul style="list-style-type: none"> • Art • Co-curricular Activities and Programmes • Values-in-Action Programmes • English Language 	<ul style="list-style-type: none"> • Humanities • Mother Tongue Languages • Information Technology • Project Work • Sciences • Service Learning • Student Leadership
Community Builder	<ul style="list-style-type: none"> • Physical Education • Co-curricular Activities and Programmes • Values-in-Action Programmes • SLEAD Programmes 	<ul style="list-style-type: none"> • Citizenship Education Programmes • Project Work • Service Learning • Student Leadership

- *Pedagogy*

5 'I's Framework

The action plans of all departments are designed using the 5'I's framework. The framework emphasises the **Importance** of academic excellence, identifies **Issues** involved and strategies to be used, leverages on significant others, peers and tutors to **Influence** students, uses different forms of motivation, reward and recognition to **Ignite** students' passion to learn and identifies **Indicators** of success.

Research-informed Classroom practices

The College is a Professional Learning Community, with all teachers in at least one Professional Learning Team involved in exploring the effectiveness of new pedagogies. Lesson observations by department leaders provide useful feedback to subject tutors on their teaching and learning processes. Analysis of feedback from students through subject-based surveys and student Focus Group Discussions are used to review the teaching and learning processes, and to ensure that 'what's taught' is learnt well.

Teachers keep abreast of current effective practices and share their knowledge with one another during professional development time and professional sharing days and retreats. Beyond the College, the professional sharing and learning continues between the JCs and in conferences.

Differentiated learning

The College caters to the different abilities of pupils via differentiated learning programmes. Departments innovate and employ various methods to deliver their Instructional Programmes. Learning opportunities beyond the classrooms, such as end-of-year work attachment and learning journeys are also provided for students. Outstanding students are selected for special educational experiences offered in Talent Development Programmes (TDP).

- *Assessment*

Assessment for Learning (AfL)

The College uses formative assessment such as written assignments, class tests, practical tests, oral examinations and presentations, and timed trials to monitor students' performance. Teachers use the information and results gleaned from these assessments to review and design appropriate learning strategies to improve student learning.

To assess the effectiveness of student learning on a termly basis, the College uses summative assessments such as the Common Test, Block Test, Final Examination

and Preliminary Examination. These assessment modes not only enable teachers to assess the learning of the students at key junctures in the academic calendar, but also provide information for decision-making with regard to assignment to special programmes and eligibility for promotion or higher education.

With all the distractions that students face during their difficult teenage years, home support is crucial in determining students' success. Parents are therefore advised on their child's academic progress and other aspects of their child's development. This partnership with parents is key in enabling the students to perform at their peak in the GCE A-Level Examination.

Talent Development Programme

In accordance to Howard Gardner's multiple intelligences theory, the Talent Development Programme (TDP) in SAJC is geared towards developing students' scholastic achievements, Servant Leadership qualities and global awareness.

Saints in the TDP enjoy a myriad of enrichment courses such as Critical Thinking workshop, Student Leadership Camp, Personal Statement Writing seminar, Work Shadowing attachments and overseas exchange programmes. Students are encouraged to take up H3 subjects, participate in Science or Arts-related research programmes and attend conferences and workshops with distinguished scholars from different fields to experience disciplines in real-world settings.

Annual overseas exchange programmes are open to Saints to engage with their peers in these countries intellectually, culturally and socially. These trips also allow Saints to further their passions and hone their global perspective.

The SAJC TDP includes the Humanities Scholars Programme (HSP) for academically outstanding students who are passionate about deepening their learning in Humanities subjects and the Science Scholars Programme (SSP) for talented students who are interested in sharpening their knowledge and skills in the fields of Science, Technology, Engineering and Mathematics.

Besides enriching the curriculum with unique educational experiences, one of the aims of these Scholarship programmes is to further prepare Saints for top public and private sector scholarships.

*Come and join in the exciting learning adventures
in St Andrew's Junior College!*

COURSE INFORMATION

1. The GCE A-Level requires students to take General Paper (**GP**), Project Work (**PW**) and Mother Tongue Language (**MTL**) at H1 level. Students are also required to offer 3H2 and 1H1 content-based subjects, at least one of which is a subject from a contrasting discipline.
2. Alternatively, students who have met SAJC's requirements can also choose to study 4 H2 subjects, of which at least 1 must be from a contrasting discipline.
3. In order to be exempted from MTL, students are required to obtain **at least a D7** for Higher Mother Tongue subject at GCE O-Level Examination. Students who offer Mother Tongue B Syllabus (MTB) at GCE O-Level Examination will continue with MTB at GCE A-Level.
4. The following tables show the **3H2 and 1H1 Subject Combinations** offered in SAJC for 2022. These combinations will only be offered if there is sufficient demand.

3H2 Subject Combinations

- **Arts Course**

Subject Codes	H2	H2	H2	H1
3A1	Economics	Geography	History	A subject from Math or the Sciences: Math, Biology, Chemistry, Physics
3A2	Economics	Geography	Literature	
3A3	Economics	History	Literature	
2A1	Economics	Geography	Math	A different subject from the Humanities: Art, Geography, History, Literature OR A subject from the Sciences: Biology, Chemistry, Physics
2A2	Economics	History	Math	

Note:

At most ONE of the following subjects may be used to replace one H2 subject in the above combinations provided students fulfil the contrasting subject requirement:

- H2 Art
- H2 Chinese Language & Literature (*with the exception of **3A2** and **3A3***)
- H2 Tamil Language & Literature (*with the exception of **3A2** and **3A3***)

• **Science Course**

Subject Codes	H2	H2	H2	H1
3S1	Biology	Chemistry	Math	A subject from the Humanities: Art, Economics, Geography, History, Literature
3S2	Chemistry	Physics	Math	
2S1	Biology	Economics	Chemistry	A different subject from the Humanities: Art, Economics, Geography, History, Literature OR A different subject from Math or the Sciences: Math, Biology, Chemistry, Physics
2S2	Biology	Economics	Math	
2S3	Chemistry	Economics	Math	
2S4	Chemistry	Geography	Math	
2S5	Physics	Economics	Math	

Note:

At most ONE of the following subjects may be used to replace one H2 subject in the above combinations provided students fulfil the contrasting subject requirement:

- H2 Art
- H2 Chinese Language & Literature
- H2 Tamil Language & Literature

- For subject combinations with low demand, the College reserves the right to decide whether such subject combinations would be offered.
- In choosing your subject combination, it is critical that you consider the course you would like to pursue in university.

4 H2 Subject Combinations

1. Students may offer 4 H2 subjects if they have attained a L1R5 (without bonus points) of 9 or lower.
2. The following tables show the **4 H2 subject combinations** offered in SAJC for 2022. These combinations will only be offered if there is sufficient demand.

Arts Course

Subject Codes	H2	H2	H2	H2
4A1	Economics	Geography	Literature	Math
4A2	Economics	History	Literature	Math

Science Course

Subject Codes	H2	H2	H2	H2
4S1	Biology	Chemistry	Math	Economics
4S2	Physics	Chemistry	Math	Economics

3. As 4H2 Subject Combination is a more demanding combination, students would be engaged at College milestone assessment check points to determine whether they are coping well.

H3 Subjects

H3 subjects have syllabi that are of much higher level of difficulty. Students offering H3 subjects must have the time and ability to manage a workload beyond their subject combination. A H3 subject must be offered together with the corresponding subject at the H2 level.

H3 subjects may be offered to students to take in JC2 if they have scored distinctions **for all H2 subjects** in the **JC1 Promotional Examination**.

Students can apply for H3 subjects offered by one of the following MOE partners involving tertiary institutions such as SMU, NUS or NTU.

Alternatively, H3 subjects offered in SAJC include H3 Chemistry, H3 Mathematics, H3 Physics, H3 Literature, H3 Geography and H3 History.

2021 Indicative Grade Profiles

Based on the number of places that were available for the various subject combinations offered in 2021, the following were the Indicative Grade Profiles of the corresponding subjects at O-Level:

Subject offered at A-Level	Corresponding Subject at O-Level	5th Percentile*
H2 Mathematics	Additional Mathematics	B3
H2 Biology	Pure Biology	B3
	Combined Science (with Biology)	A2
H2 Chemistry	Pure Chemistry	B3
	Combined Science (with Chemistry)	A2
H2 Physics	Pure Physics	B3
	Combined Science (with Physics)	A2

* 5th percentile refers to the bottom 5% of the 2021 Cohort who attained B3 or below for Additional Mathematics and Pure Sciences
A2 or below for Combined Sciences with the corresponding Science subject

Note:

To do a H2 Science at A-Level, a minimum of a Combined Science with the corresponding Science subject at O-Level is required.

ADMISSION REQUIREMENTS INTO LOCAL UNIVERSITIES

NTU, NUS, SMU, SUTD, SUSS and SIT will select applicants based on their grades in:

- **3 H2 and 1 H1** content-based subjects (at least one of which must be a contrasting subject)
- General Paper (**GP**)
- Project Work (**PW**)

Applicants should also meet the Mother Tongue Language (**MTL**) requirement for admission by having one of the following:

- a minimum of D7 for the higher MTL paper taken at the GCE O-Level examination.
- a minimum of 'S' grade for the H1 MTL paper or General Studies in Chinese.
- a minimum of 'S' grade for the H2 MTLL paper taken at the GCE A-Level Examination.
- a pass in the MT 'B' Syllabus paper at the GCE A-Level Examination.

If a candidate is exempted from MTL, as approved by MOE, the MOE-approved subject-in-lieu will be considered as the MTL subject.

Candidates who are unable to fulfil the MTL requirement for admission but satisfy all other admission requirements will be admitted on a provisional basis. During their course of study, they will be required to attend the MTL course conducted by the University or attain the minimum requirement as listed above by retaking the MTL paper at the GCE A-Level Examination before they are allowed to graduate.

Besides their examination results, the universities may also consider students' achievement in other areas, such as Co-Curricular Activities (**CCA**) and Values-in-Action (**VIA**) Programme, as reflected in their School Graduation Certificate (**SGC**).

INDICATIVE GRADE PROFILES FOR NUS/NTU/SMU FOR AY2021/2022 ADMISSIONS EXERCISE

The Indicative Grade Profile assumes C grades for GP and PW. The Grade Profiles below indicate that of the 10th percentile of the cohort. Please note that certain programmes may require grades higher than C for GP.

University	Course	10th percentile
NTU	Medicine*	AAA/A
NTU	Renaissance Engineering*	AAA/A
NTU	Data Science & Artificial Intelligence	AAA/A
NTU	Environmental Earth Systems Science*	AAA/A
NUS	Law*	AAA/A
NUS	Medicine*	AAA/A
NUS	Dentistry*	AAA/A
NUS	Business Analytics	AAA/A
NUS	Computer Science Courses	AAA/A
NUS	Information Security	AAA/A
NUS	Information Systems	AAA/A
NUS	Pharmaceutical Science	AAA/A
NUS	Science (Food Science and Technology)	AAA/A
NUS	Arts and Social Sciences (Philosophy, Politics, and Economics)*	AAA/A
SMU	Bachelor of Laws	AAA/A
NUS	Computer Engineering	AAA/B
NUS	Pharmacy	AAA/B
NTU	Double Major Programmes* [College of Science]	AAA/C
NTU	Biological Sciences*	AAA/C
NTU	Double Major Programmes* [College of Humanities, Arts & Social Sciences]	AAA/C
NUS	Data Science and Analytics	AAA/C
NUS	Science	AAA/C
NUS	Environmental Studies	AAA/C
NTU	Computer Science	AAB/B
NUS	Business Administration (Accountancy)	AAB/B
NTU	Aerospace Engineering	AAB/C
NTU	Communication Studies*	AAB/C
NUS	Business Administration	AAB/C
NTU	Computer Engineering	AAC/B
NTU	Science (Education)*	AAC/B
NTU	Psychology	AAC/C
SMU	Bachelor of Science (Computer Science)	ABB/A
SMU	Bachelor of Science (Computing & Law)	ABB/A
NUS	Mechanical Engineering (Aeronautical)	ABB/B

NTU	Arts (Education)*	ABC/B
NTU	Public Policy & Global Affairs	ABC/C
NUS	Chemical Engineering	BBB/B
NUS	Arts and Social Sciences	BBB/B
NUS	Biomedical Engineering	BBB/C
SMU	Bachelor of Business Management	BBB/C
NTU	Chemical & Biomolecular Engineering	BBC/B
NTU	Chemistry & Biological Chemistry	BBC/B
NUS	Industrial Design*	BBC/B
NUS	Electrical Engineering	BBC/B
NUS	Engineering Science	BBC/B
NUS	Mechanical Engineering	BBC/B
NUS	Arts and Social Sciences (Mother Tongue Related)	BBC/B
SMU	Bachelor of Science (Information Systems)	BBC/B
SMU	Bachelor of Social Science	BBC/B
NTU	Accountancy*	BBC/C
NTU	Sociology	BBC/C
NUS	Environmental Engineering	BBC/C
NUS	Industrial and Systems Engineering	BBC/C
NUS	Materials Science and Engineering	BBC/C
SMU	Bachelor of Accountancy	BBC/C
NTU	Bioengineering	BCC/B
NTU	Mathematical Sciences	BCC/B
NTU	Business*	BCC/B
NTU	Economics	BCC/B
NTU	Linguistics & Multilingual Studies*	BCC/B
NTU	Sport Science & Management	BCC/C
NUS	Architecture*	BCC/C
NUS	Landscape Architecture*	BCC/C
SMU	Bachelor of Science (Economics)	BCC/C
NTU	Information Engineering & Media	BCC/D
NTU	Physics / Applied Physics	BCC/D
NTU	English*	BCC/D
NTU	Philosophy*	BCC/D
NUS	Project & Facilities Management	CCC/B
NTU	Environmental Engineering	CCC/C
NTU	Art, Design & Media*^	CCC/C
NTU	Chinese	CCC/C
NTU	History*	CCC/C
NUS	Civil Engineering	CCC/C
NTU	Mechanical Engineering	CCC/D
NUS	Nursing*	CCD/B
NUS	Real Estate	CCD/B
NTU	Maritime Studies	CCD/C
NTU	Materials Engineering	CCD/C
NTU	Engineering	CCD/D
NTU	Civil Engineering	CDD/C
NTU	Electrical & Electronic Engineering	CDD/C

NUS	Engineering	Not offered as a choice from 2020
-----	-------------	-----------------------------------

*Courses that require interview &/or test
Double degree programmes are excluded from the table

Sources:

https://www.nus.edu.sg/oam/docs/default-source/undergraduate-programmes/nus-igp-2021.pdf?sfvrsn=f80385b1_8
<https://www.ntu.edu.sg/admissions/undergraduate/indicative-grade-profile>
<https://admissions.smu.edu.sg/admissions-requirements/indicative-grade-profile>

INDICATIVE GRADE PROFILES FOR SUTD

As a guide, the University has provided the following reference data to help prospective applicants make an informed choice in applying to the university:

Of the A Level students who were offered in the university admission exercise in 2020:

- Nearly all had taken Mathematics at H2 level, and 8 in 10 scored at least a B
- Nearly all had taken either Physics or Chemistry (or both) at H2 Level, and nearly 7 in 10 of those who took H2 Physics and/or H2 Chemistry scored at least a B for either or both subjects.

Source:

<https://www.sutd.edu.sg/Admissions/Undergraduate/Application/Admission-Requirements>

INDICATIVE GRADE PROFILES FOR SUSS

Reference Information for AY2022 applicants applying to the SUSS Full-time Undergraduate programme may refer to the below indicative grade profile (IGP) and number of programme places in the link below. Please note the information is to be used as a reference only:

<https://www.suss.edu.sg/full-time-undergraduate/admissions/indicative-grade-profile-igp>

Source:

<https://www.suss.edu.sg/full-time-undergraduate/admissions/indicative-grade-profile-igp>

INDICATIVE GRADE PROFILES FOR SIT

SIT's broad-based admissions framework considers applicants holistically based on both academic merit and non-academic merit, to ensure that the right students are admitted:

https://www.singaporetech.edu.sg/sites/default/files/2021-01/SIT_Indicative_Grade_Profile_0.pdf

Source:

<https://www.singaporetech.edu.sg/admissions/undergraduate>

VARIOUS COURSE REQUIREMENTS IN THE LOCAL UNIVERSITIES

In addition to fulfilling the admission requirements, you also need to make sure you fulfil the course prerequisites of the degree programmes that you wish to apply in future.

REQUIREMENTS FOR COURSES IN NTU

Programme	Minimum Subject Requirements	Selection Test/Interview
NANYANG BUSINESS SCHOOL		
Accountancy ^{†£#} Accountancy with a Second Major in Entrepreneurship ^{NEW}	H1 Level pass in Mathematics or 'O' Level/equivalent pass in Additional Mathematics	On a selective basis
Accountancy and Data Science and Artificial Intelligence (Double Degree) ^{NEW}	Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing	On a selective basis
Accountancy and Business (Double Degree) [£] Accountancy and Business with a Second Major in Entrepreneurship (Double Degree) ^{NEW} Business ^{†£} Business with a Second Major in Entrepreneurship ^{NEW}	H1 Level pass in Mathematics, or 'O' Level/equivalent pass in Additional Mathematics	On a selective basis
COLLEGE OF HUMANITIES, ARTS, & SOCIAL SCIENCES		
Art, Design & Media	<p>'O' Level/equivalent pass in Mathematics and a good grade in General Paper/Knowledge & Inquiry</p> <p>In addition, candidates are required to produce and submit the following materials for admission assessment.</p> <ul style="list-style-type: none"> • A portfolio • Personal statement and writing samples • A creative project • Three visuals <p>For specific submission instructions and details, please refer to ADM Admissions Requirements.</p>	
Chinese	Pass in H2 Level Chinese subjects or good pass in H1 Level Chinese subjects or good pass in 'O' Level Higher Chinese or good pass in 'O' Level Chinese	Yes

Programme	Minimum Subject Requirements	Selection Test/Interview
Chinese and English (Double Major) ^{NEW} ⌘ Chinese and Linguistics & Multilingual Studies (Double Major) ^{NEW} ⌘	A good grade in General Paper/Knowledge & Inquiry/H1 or H2 Level Humanities subject; and Pass in H2 Level Chinese subjects, or Good pass in H1 Level Chinese subjects, or Good pass in 'O' Level Higher Chinese, or Good pass in 'O' Level Chinese	Yes
Communication Studies Communication Studies with a Second Major in Business	H1 Level pass in Mathematics or 'O' Level/equivalent pass in Additional Mathematics and At least a B grade in General Paper/Knowledge and Inquiry	Yes
Economics Economics with a second Major in Business	A good grade in H1 Level Mathematics and A good grade GP/ Knowledge and Inquiry	On a selective basis
Economics and Data Science ^{NEW} §	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing	
Economics and Media Analytics (Double Major) ⌘	A good grade in H2 Level Mathematics and at least a B grade GP/ Knowledge & Inquiry	On a selective basis
Economics and Psychology (Double Major) ⌘	A good grade in H2 Level Mathematics and A good grade GP/ Knowledge & Inquiry	On a selective basis
Economics and Public Policy and Global Affairs (Double Major) ⌘	A good grade in H2 Level Mathematics and A good grade GP/ Knowledge & Inquiry/ H1 Level History /English Literature /Geography	On a selective basis
English English Literature and Art History (Double Major) ⌘ English and History (Double Major) ^{NEW} ⌘ English and Philosophy (Double Major) ^{NEW} ⌘ History	A good grade in General Paper/Knowledge & Inquiry/H1 or H2 Level Humanities Subject	Yes

Programme	Minimum Subject Requirements	Selection Test/Interview
History and Chinese (Double Major) ^{NEW⌘}	A good grade in General Paper/Knowledge & Inquiry/H1 or H2 Level Humanities subject; and Pass in H2 Level Chinese subjects, or Good pass in H1 Level Chinese subjects, or Good pass in 'O' Level Higher Chinese, or Good pass in 'O' Level Chinese	Yes
History and Linguistics & Multilingual Studies (Double Major) ^{NEW⌘}	A good grade in General Paper/Knowledge & Inquiry/H1 or H2 Level Humanities subject	Yes
Linguistics and Multilingual Studies	A good grade in General Paper/Knowledge & Inquiry/H2 Level Humanities	Yes
Linguistics and Multilingual Studies and English (Double Major) ^{NEW⌘} Linguistics and Multilingual Studies and Philosophy (Double Major) ^{NEW⌘}	A good grade in General Paper/Knowledge & Inquiry/H1 or H2 Level Humanities subject	Yes
Philosophy	A good grade in General Paper/Knowledge & Inquiry/H1 or H2 Level Humanities subject	Yes
Philosophy and Chinese (Double Major) ^{NEW⌘}	A good grade in General Paper/Knowledge & Inquiry/H1 or H2 Level Humanities subject; and Pass in H2 Level Chinese subjects, or Good pass in H1 Level Chinese subjects, or Good pass in 'O' Level Higher Chinese, or Good pass in 'O' Level Chinese	Yes
Philosophy and History (Double Major) ^{NEW⌘}	A good grade in General Paper/Knowledge & Inquiry/H1 or H2 Level Humanities subject	Yes
Psychology	A good grade in H1 Level Mathematics and A good grade GP/ Knowledge & Inquiry	On a selective basis
Psychology with a Second Major in Biological Sciences	A good grade in H1 Level Mathematics and A good grade GP/ Knowledge and Inquiry and H1 level pass in Physics/Chemistry/Biology	On a selective basis
Psychology and Linguistics and Multilingual Studies (Double Major) [⌘]	A good grade in H1 level Mathematics and a good grade GP/ Knowledge and Inquiry/ H2 Level Humanities Subject	Yes
Psychology and Media Analytics (Double Major) [⌘]	A good grade in H1 Level Mathematics and at least a B grade in GP/ Knowledge and Inquiry	On a selective basis

Programme	Minimum Subject Requirements	Selection Test/Interview
Public Policy and Global Affairs	A good grade in General Paper/Knowledge & Inquiry and H1 Level History/English Literature/Geography	On a selective basis
Sociology	A good grade in General Paper/Knowledge and Inquiry	On a selective basis
COLLEGE OF ENGINEERING		
Renaissance Engineering Programme [¶]	H2 Level pass in Mathematics and H2 Level pass Physics /Chemistry /Biology/Computing and H1 level / 'O' Level pass in Physics/equivalent ⁺	Yes
Aerospace Engineering ^{^£} Aerospace Engineering with a Second Major in Business Aerospace Engineering with a Second Major Entrepreneurship ^{NEW}	H2 Level pass in Mathematics and H2 Level pass Physics /Chemistry /Biology/Computing and H1 level / 'O' Level pass in Physics/equivalent ⁺	
Bioengineering ^{^£} Bioengineering with a Second Major in Business Bioengineering with a Second Major in Entrepreneurship ^{NEW}	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing	
Bioengineering with a Second Major in Food Science and Technology Bioengineering with a Second Major in Pharmaceutical Engineering	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing, and H1 Level/'O' Level pass in Physics/equivalent ⁺	
Business and Computer Engineering (Double Degree)	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing, and H1 Level/'O' Level pass in Physics/equivalent ⁺	
Business and Computing (Double Degree)	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing	

Programme	Minimum Subject Requirements	Selection Test/Interview
Chemical and Biomolecular Engineering ^{*^£} Chemical and Biomolecular Engineering with a Second Major in Business Chemical and Biomolecular Engineering with a Second Major in Entrepreneurship ^{NEW}	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing	
Chemical and Biomolecular Engineering with a Second Major in Food Technology and Science	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing, and H1 Level/'O' Level pass in Physics/equivalent ⁺	
Computer Engineering Computer Engineering with a Second Major in Business Computer Engineering with a Second Major in Entrepreneurship ^{NEW}	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing, and H1 Level/'O' Level pass in Physics/equivalent ⁺	
Civil Engineering ^{*^£} Civil Engineering with a Second Major in Business Civil Engineering with a Second Major in Entrepreneurship ^{NEW} Civil Engineering with a Second Major in Society and Urban System	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing, and H1 Level/'O' Level pass in Physics/equivalent ⁺	
Computer Science ^{*^£}	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing	

Programme	Minimum Subject Requirements	Selection Test/Interview
Computer Science with a Second Major in Business	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing	
Computer Science with a Second Major in Entrepreneurship NEW		
Data Science and Artificial Intelligence [§]	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing	
Engineering ^{^£@}	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing, and H1 Level/'O' Level pass in Physics/equivalent ⁺	
Electrical and Electronic Engineering ^{*^£}	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing, and H1 Level/'O' Level pass in Physics/equivalent ⁺	
Electrical and Electronic Engineering with a Second Major in Business		
Electrical and Electronic Engineering with a Second Major in Entrepreneurship ^{NEW}		
Electrical and Electronic Engineering with a Second Major in Society and Urban Systems		
Environmental Engineering ^{*^£}	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing, and H1 Level/'O' Level pass in Physics/equivalent ⁺	
Environmental Engineering with a Second Major in Business		
Environmental Engineering with a Second Major in Entrepreneurship ^{NEW}		

Programme	Minimum Subject Requirements	Selection Test/Interview
Environmental Engineering with a Second Major in Society and Urban Systems	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing, and H1 Level/'O' Level pass in Physics/equivalent ⁺	
Information Engineering and Media ^{*^£} Information Engineering and Media with a Second Major in Business Information Engineering and Media with a Second Major in Entrepreneurship ^{NEW}	H2 Level pass in Mathematics and H2 Level pass Physics/Chemistry /Biology/Computing and H1 level / 'O' Level pass in Physics/equivalent ⁺	
Maritime Studies [§] Maritime Studies with a Second Major in Business [§]	H1 Level pass in Mathematics, or 'O' Level/equivalent pass in Additional Mathematics, and H1 Level/ 'O' Level pass in a Science subject	
Materials Engineering ^{*^£} Materials Engineering with a Second Major in Business Materials Engineering with a Second Major in Entrepreneurship ^{NEW} Materials Engineering with a Second Major in Medical Biology Materials Engineering with a Second Major in Pharmaceutical Engineering	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology, and H1 Level/'O' Level pass in Physics/equivalent ⁺	

Programme	Minimum Subject Requirements	Selection Test/Interview
COLLEGE OF SCIENCE		
Biological Sciences Biological Sciences with a Second Major in Biomedical Structural Biology	H1 Level pass in Mathematics and H2 Level pass in Physics/Chemistry/Biology	On a selective basis
Biological Sciences with Second Major in Food Science and Technology	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology; or H1 Level pass in Mathematics, and Any two H2 Level passes in Physics/Chemistry/Biology	
Biological Sciences with Second Major Medicinal Chemistry and Pharmacology	H1 Level pass in Mathematics, and H2 Level pass in Chemistry	
Biomedical Sciences and BioBusiness (Double Major)	H1 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology	Yes
Biomedical Sciences and Chinese Medicine (Double Degree)	H1 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology, and 'O' Level pass in Chinese	Yes
Biological Sciences and Psychology (Double Major)	A good grade in H1 Level Mathematics and H2 Level pass in Physics/Chemistry/Biology and A good grade in General Paper/Knowledge and Inquiry	Yes
Chemistry and Biological Chemistry Chemistry and Biological Chemistry with a Second Major in Business (International Trading) ^{NEW} Chemistry and Biological Chemistry with a Second Major in Environmental Science Chemistry and Biological Chemistry with a Second Major in Food Science and Technology	H2 level pass in Chemistry and H2 Level pass in Mathematics/Physics	

Programme	Minimum Subject Requirements	Selection Test/Interview
Environmental Earth Systems Science	H1 level pass in Mathematics and H2 level pass in Physics/Chemistry/Biology/Economics/Computing	On a selective basis
Environmental Earth Systems Science and Public Policy and Global Affairs (Double Major)	H1 Level pass in Mathematics and H2 level pass in Physics/Chemistry/Biology/Computing/Economics and A good grade in General Paper/Knowledge and Inquiry/H1 Level History/English Literature/Geography	On a selective basis
Applied Physics with a Second Major Microelectronics Engineering	H2 level pass in Physics and H2 level pass in Mathematics	
Physics/Applied Physics	H2 level pass in Physics and H2 level pass in Mathematics	
Physics and Mathematical Sciences (Double Major)	H2 level pass in Physics and H2 level pass in Mathematics	
Mathematical Sciences^^	H2 level pass in Mathematics	
Mathematical and Computer Sciences (Double Major)	H2 level pass in Mathematics and H2 level pass in Physics/Chemistry/Biology/Computing	
Mathematical Sciences and Economics (Double Major)	H2 level pass in Mathematics and A good grade in General Paper/Knowledge and Inquiry	On a selective basis
LEE KONG CHIAN SCHOOL OF MEDICINE		
Medicine	<p>Pass in H2 Level Chemistry and Pass in either H2 Level Biology or Physics</p> <p>In addition, candidates are required to submit the following materials for admission assessment:</p> <ul style="list-style-type: none"> • Academic results • Personal statement • Two online referee reports (One of the referees must be the applicant's civics tutor/form teacher. The online referee report is In question and answer format. The questions will take no more than 10 minutes to complete. Instructions and login details will be provided to applicants who will in turn forward the login information to their referees.) <p>Applicants are also recommended to provide details of exceptional talents and/or outstanding achievements beyond school co-curricular activities for admissions assessments.</p>	Yes

Programme	Minimum Subject Requirements	Selection Test/Interview
	<p>BioMedical Admissions Test (BMAT)</p> <p>Applicants will have to register for the Biomedical Admissions Test (BMAT) and take the BMAT as part of the criteria for entry to the Lee Kong Chian School of Medicine (LKCMedicine) programme. Applicants take the BMAT around October/November each year, prior to their application to the LKCMedicine. Only results of the BMAT taken in the 12-month period prior to admission to LKCMedicine will be considered in the selection process. For more details on the BMAT, please refer to www.bmat.org.uk.</p> <p>For further details, please visit http://www.lkcmedicine.ntu.edu.sg/admissions/pages/index.aspx</p>	
NATIONAL INSTITUTE OF EDUCATION		
Arts (Education) [▲]	Pass in GP/Knowledge and Inquiry, at one sitting and	Yes
Science (Education) [▲]	Pass in Mathematics at H1 Level/'O' Level	
Sport Science & Management [§]	H1 Level pass in Mathematics, or O level/equivalent pass in Additional Mathematics	On a selective basis

Footnote to minimum Subject Requirements

¥ Programme leading to Bachelor of Engineering Science and Master of Science in Technology Management.

+ H1 Level/'O' Level pass in Physics/equivalent is only applicable to applicants who have not read Physics at H2 Level.

* The programme is also offered as a double degree programme with Economics.

£ The programme is also offered as a single degree programme with a Minor in International Trading.

^ The programme is also offered as a single degree programme with a Minor in Business.

§ Programme leading to Bachelor of Science degree.

@ Students who are undecided on their Engineering major may opt for Engineering (i.e. Common Engineering) at the point of application. All Common Engineering students will read a semester of engineering studies after which they will be streamed into either Civil Engineering, Electrical and Electronic Engineering, Environmental Engineering, Materials engineering or Mechanical Engineering at the end of Year 1, Semester 1. In all cases, admissions and streaming into an engineering major are merit-based.

⌘ The programme is offered as a single degree programme with two distinct majors. Each major carries equal weight in the degree.

^^ The programme is also offered as a single degree programme with a Minor in Finance.

† The programme is also offered as a single degree programme with a Minor in Strategic Communication.

The programme is also offered as a single degree programme with a Minor in Digitalisation and Data Analytics.

▲ These degree programmes offer many courses which may require further subject prerequisites. Please refer to the National Institute of Education (NIE) website for details.

More details can be found at the following website:-

<https://www.ntu.edu.sg/admissions/undergraduate/brochures>

<https://indd.adobe.com/view/8518d6d9-8b7f-4925-9e7c-7900f6a32c1a>

REQUIREMENTS FOR COURSES IN NUS

Programme	Minimum Subject Requirements	Selection Test/ Interview
Single Degree Course		
Architecture	H1 pass in Chemistry or Mathematics or Physics; OR pass in 'O' level Additional Mathematics.	Yes
Biomedical Engineering [#]	H2 pass in Mathematics or Further Mathematics and either Physics or Chemistry. Those without a H2 pass in Chemistry will have to read the Chemistry Bridging Module (CM1417) in the 1st year.	No
Biomedical Engineering (Robotics Specialization) [#]	H2 pass in Mathematics or Further Mathematics and either Physics or Chemistry. Those without a H2 pass in Chemistry will have to read the Chemistry Bridging Module (CM1417) in the 1st year.	No
Business Administration	H1 pass in Mathematics or pass in 'O' Level Additional Mathematics.	No
Business Administration (Accountancy)	H1 pass in Mathematics or pass in 'O' Level Additional Mathematics.	
Business Analytics	H2 pass in Mathematics or Further Mathematics.	No
Chemical Engineering [#]	H2 pass in Mathematics or Further Mathematics and Chemistry and Physics.	No
Civil Engineering [#]	H2 pass in Mathematics or Further Mathematics and either Physics or Chemistry.	No
Civil Engineering (Digitalization in Urban Infrastructure Specialization) [#]	H2 pass in Mathematics or Further Mathematics and either Physics or Chemistry.	No
Computer Engineering [#] (Jointly Conducted by Faculty of Engineering & School of Computing)	H2 pass in Mathematics or Further Mathematics and either Physics, Computing or Chemistry.	No
Computer Engineering (Internet of Things Specialization) [#]	H2 pass in Mathematics or Further Mathematics and either Physics, Computing or Chemistry.	No
Computer Engineering (Robotics Specialization) [#]	H2 pass in Mathematics or Further Mathematics and either Physics, Computing or Chemistry.	No
Computer Science courses [@]	H2 pass in Computing or Mathematics or Further Mathematics or Physics; OR a good pass in H1 Mathematics.	No

Data Science and Economics [@]	A very good pass in H2 Mathematics.	No
Dentistry	H2 pass in Chemistry and either Biology or Physics.	Yes
Electrical Engineering [#]	H2 pass in Mathematics or Further Mathematics and either Physics or Chemistry.	No
Electrical Engineering (Internet of Things Specialization) [#]	H2 pass in Mathematics or Further Mathematics and either Physics or Chemistry.	No
Electrical Engineering (Robotics Specialization) [#]	H2 pass in Mathematics or Further Mathematics and either Physics or Chemistry.	No
Engineering Science	H2 pass in Mathematics or Further Mathematics and Physics.	No
Environmental Engineering [#]	H2 pass in Mathematics or Further Mathematics, and Chemistry and Physics.	No
Environmental Engineering (Digitalization in Urban Infrastructure Specialization) [#]	H2 pass in Mathematics or Further Mathematics, and Chemistry and Physics.	No
Environmental Studies	H1 pass in Mathematics and H2 pass in either Biology or Chemistry.	No
Food Science and Technology	Any two H2 passes in Chemistry or Biology or Physics or Computing or Mathematics/Further Mathematics.	No
Humanities and Sciences	Please refer to https://chs.nus.edu.sg/programmes/#prog-majors for details.	
Industrial Design	H1 pass in Mathematics or Physics or Economics or Art; OR pass in 'O' level Additional Mathematics	Yes
Industrial & Systems Engineering [#]	H2 pass in Mathematics or Further Mathematics and either Physics or Chemistry.	No
Information Security	H2 pass in Computing or Mathematics or Further Mathematics or Physics; OR a good pass in H1 Mathematics.	No
Information Systems [^]	H2 pass in Computing; OR a good pass in H1 Mathematics.	No
Landscape Architecture	H1 pass in Chemistry or Mathematics or Physics; OR pass in 'O' level Additional Mathematics.	Yes
Law	Good overall A level results, including at least a B grade in H1 General Paper (GP); or a good pass in H2 Knowledge & Inquiry (KI); or a minimum SAT Critical Reading / Evidence-based Reading & Writing score of 700 accompanied by a minimum E grade for GP/KI.	Yes
Materials Science & Engineering [#]	H2 pass in Mathematics or Further Mathematics and either Physics or Chemistry.	No
Mechanical Engineering [#]	H2 pass in Mathematics or Further Mathematics and either Physics or Chemistry.	No

Mechanical Engineering (Aeronautical Engineering Specialization) [#]	H2 pass in Mathematics or Further Mathematics and either Physics or Chemistry.	No
Mechanical Engineering (Robotics Specialization) [#]	H2 pass in Mathematics or Further Mathematics and either Physics or Chemistry.	No
Medicine	H2 pass in Chemistry and either Biology or Physics.	Yes
Music	Application for the Music course has to be filed directly to the Conservatory. Please refer to http://music.nus.edu.sg for more information.	Yes
Nursing	Pass in any two of the following H2 subjects: Biology, Chemistry, Computing, Physics and Mathematics.	Yes
Pharmacy [%]	Very Good Pass in H2 Chemistry and Very Good Pass in H2 Biology or H2 Physics or H2 Mathematics or H2 Further Mathematics	No
Pharmaceutical Science	Very Good Pass in H2 Chemistry and Very Good Pass in H2 Biology or H2 Physics or H2 Mathematics or H2 Further Mathematics	No
Philosophy, Politics, and Economics	Please refer to https://chs.nus.edu.sg/programmes/ppe/ for details.	Yes
Project & Facilities Management	H1 pass in Chemistry or Mathematics or Physics.	No
Real Estate	H1 pass in Chemistry or Mathematics or Physics.	No

Footnotes on Requirements

Students without H1 or H2 Physics need to have an O Level pass in Physics or its equivalent and would be required to take Physics bridging modules.

@Please refer to http://www.comp.nus.edu.sg/undergraduates/cs_courses.html for more information.

^Please refer to http://www.comp.nus.edu.sg/undergraduates/is_is_prospective.html for more information.

% Students applying to Pharmacy should refer to <https://pharmacy.nus.edu.sg/study/undergraduate/bachelor-of-pharmacy/> for important information on the 'Fitness to Practice'

Programme	Subject Prerequisites	Selection Test/ Interview
Double & Concurrent Degree Programmes / Specialisations / Double Major Programmes / Minor Programmes		
Arts & Social Sciences (NUS) and Arts (Sciences Po)	Please refer to www.usp.nus.edu.sg/nus-sciencespo for details.	Yes
Business Analytics	Pass in H2 Mathematics or Further Mathematics	No

Business Administration and Business Analytics	H2 pass in Mathematics or Further Mathematics.	No
Business Administration & Communications and New Media	Minimum prevailing admission criteria of both courses. ¹	No
Business Administration & Computer Science courses	H2 pass in Computing or Mathematics or Further Mathematics or Physics; OR a good pass in H1 Mathematics. ²	No
Business Administration & Information Systems	H2 pass in Computing; OR a good pass in H1 Mathematics. ²	No
Business Administration & Law	H1 pass in Mathematics or pass in O Level Additional Mathematics AND good overall A level results, including at least a B grade in H1 General Paper (GP); or a good pass in H2 Knowledge & Inquiry (KI); or a minimum SAT Critical Reading / Evidence-based Reading & Writing score of 700 accompanied by a minimum E grade for GP/KI.	Yes
Business Administration & Master in Public Policy	H1 pass in Mathematics or pass in O Level Additional Mathematics.	Yes
Business Administration & Master of Science (Management)	H1 pass in Mathematics or pass in O Level Additional Mathematics.	Yes
Business Administration (Accountancy) & Master in Public Policy	H1 pass in Mathematics or pass in O Level Additional Mathematics.	Yes
Business Administration (Accountancy) & Master of Science (Management)	H1 pass in Mathematics or pass in O Level Additional Mathematics.	Yes
Business Analytics and Economics	H2 pass in Mathematics or Further Mathematics.	No
Information Systems and Economics	H2 pass in Computing; OR a good pass in H1 Mathematics.	No
Information Systems and Master of Science (Management) (NUS)	H2 pass in Computing; OR a good pass in H1 Mathematics ³	Yes
Economics & Business Administration	Minimum prevailing admission criteria of both courses. ¹	No
Economics & Law	H2 pass in Mathematics AND good overall A level results, including at least a B grade in H1 General Paper (GP); or a good pass in H2 Knowledge & Inquiry (KI); or a minimum	Yes

	SAT Critical Reading / Evidence-based Reading & Writing score of 700 accompanied by a minimum E grade for GP/KI.	
Engineering & Business Administration	Minimum prevailing admission criteria of both courses. ⁴	No
Engineering & Economics	Minimum prevailing admission criteria of both courses. ⁴	No
Law & Master in Public Policy	Good overall A level results, including at least a B grade in H1 General Paper (GP); or a good pass in H2 Knowledge & Inquiry (KI); or a minimum SAT Critical Reading / Evidence-based Reading & Writing score of 700 accompanied by a minimum E grade for GP/KI.	Yes
Mathematics & Computer Science	An A grade in H2 Mathematics or Further Mathematics AND a good grade in H2 Computing or Physics or Chemistry or Biology.	No

Programme	Subject Prerequisites
Double Major Programmes	
Business Schools	
Business Administration with Business Analytics	H2 pass in Mathematics or Further Mathematics
Business Administration with Communications & New Media	H1 pass in Mathematics or pass in 'O' Level Additional Mathematic
Business Administration with Economics	H1 pass in Mathematics or pass in 'O' Level Additional Mathematics
Business Administration with Psychology	H1 pass in Mathematics or pass in 'O' Level Additional Mathematics
Business Administration with Real Estate Finance	H1 pass in Chemistry or Mathematics or Physics
College of Humanities and Sciences	
-Faculty of Arts and Social Sciences	
Communications & New Media with Management	H1 pass or equivalent in Mathematics
Economics with Business Analytics	H2 pass in Mathematics or Further Mathematics
Economics with Management	H1 pass or equivalent in Mathematics
Psychology with Management	H1 pass or equivalent in Mathematics
-Faculty of Science	
Life Sciences with Management	Good H2 passes in Biology and Chemistry
Mathematics with Business Analytics	Good H2 pass or equivalent in Mathematics or Further Mathematics.
Mathematics with Computer Science Courses	Good H2 pass or equivalent in Mathematics or Further Mathematics.

Mathematics with Information Security	Good H2 pass or equivalent in Mathematics or Further Mathematics.
Mathematics with Management	Good H2 pass or equivalent in Mathematics or Further Mathematics.
Statistics with Business Analytics	Good H2 pass or equivalent in Mathematics or Further Mathematics.
Statistics with Computer Science Courses	Good H2 pass or equivalent in Mathematics or Further Mathematics.
Statistics with Information Security	Good H2 pass or equivalent in Mathematics or Further Mathematics
Statistics with Management	Good H2 pass or equivalent in Mathematics or Further Mathematics
College of Design and Engineering	
Computer Engineering with Innovation & Design (Double Major)	H2 pass in Mathematics or Further Mathematics and either Physics, Computing or Chemistry
Computer Engineering with Management (Double Major)	H2 pass in Mathematics or Further Mathematics and either Physics, Computing or Chemistry
Computer Engineering with Systems Engineering (Double Major)	H2 pass in Mathematics or Further Mathematics and either Physics, Computing or Chemistry
Engineering with Innovation & Design (Double Major)	H2 pass in Mathematics or Further Mathematics
Engineering with Management (Double Major)	H2 pass in Mathematics or Further Mathematics
Engineering with Systems Engineering (Double Major)	H2 pass in Mathematics or Further Mathematics
Mechanical Engineering (Aeronautical Engineering Specialisation) with Innovation & Design (Double Major)	H2 pass in Mathematics or Further Mathematics
Mechanical Engineering (Aeronautical Engineering Specialisation) with Management (Double Major)	H2 pass in Mathematics or Further Mathematics
Mechanical Engineering (Aeronautical Engineering Specialisation) with Systems Engineering (Double Major)	H2 pass in Mathematics or Further Mathematics
School of Computing	
Business Analytics with Economics	Good H2 pass in Mathematics or Further Mathematics
Business Analytics with Mathematics	Good H2 pass or equivalent in Mathematics or Further Mathematics.
Business Analytics with Statistics	Good H2 pass or equivalent in Mathematics or Further Mathematics.
Computer Science Courses with Mathematics	Good H2 pass or equivalent in Mathematics or Further Mathematics.

Computer Science Courses with Statistics	Good H2 pass or equivalent in Mathematics or Further Mathematics.
Information Security with Mathematics	Good H2 pass or equivalent in Mathematics or Further Mathematics.
Information Security with Statistics	Good H2 pass or equivalent in Mathematics or Further Mathematics.
Information Systems with Economics	Good H2 pass in Mathematics or Further Mathematics

Programme	Subject Prerequisites	Selection Test/ Interview
Special Programmes:		
Engineering & Medicine (Duke-NUS)	Will be considered for the Programme if admitted to an Engineering course. ⁴	Yes
Engineering Scholars Programme	Will be considered for the Programme if admitted to an Engineering course. ⁴	Yes

Footnotes on Requirements

1 Minimum admission criteria for Business Administration or Business Administration (Accountancy) is H1 pass in Mathematics or pass in 'O' Level Additional Mathematics.

2 Please refer to http://www.comp.nus.edu.sg/undergraduates/dd_computing_business.html for more information.

3 Please refer to http://www.comp.nus.edu.sg/undergraduates/cdp_bcomp_msc.html for more information.

4 Minimum admission criteria for Chemical Engineering and Environmental Engineering courses is H2 pass in Mathematics, Chemistry and Physics. Students without H1 or H2 Physics need to have an O Level pass in Physics or its equivalent and would be required to take Physics bridging modules. Engineering Double Degree Programmes are open to all Engineering courses except for Engineering Science. Students without H1 and H2 Physics need to have 'O' Level Physics or its equivalent and would be required to take Physics bridging modules.

Programme	Subject Prerequisites
Minor Programmes	
Business Schools	
Business Administration (Accountancy) with a Minor in Quantitative Finance	Good H2 pass or equivalent in Mathematics or Further Mathematics
Business Administration (Accountancy) with a Minor in Statistics	Good H2 pass or equivalent in Mathematics or Further Mathematics
Business Administration with a Minor in Communications & New Media	Minor subject requirements will be the same as the Major subject requirements
Business Administration with a Minor in Public Health	Minor subject requirements will be the same as the Major subject requirements
Business Administration with a Minor in Psychology	Minor subject requirements will be the same as the Major subject requirements

Business Administration with a Minor in Quantitative Finance	Good H2 pass in Mathematics or Further Mathematics
Business Administration with a Minor in Real Estate	Minor subject requirements will be the same as the Major subject requirements
Business Administration with a Minor Statistics	Good H2 pass or equivalent in Mathematics or Further Mathematics
Real Estate with a Minor in Business Analytics	H2 pass in Mathematics or Further Mathematics
Real Estate with a Minor in Infrastructure Management and Finance	Minor subject requirements will be the same as the Major subject requirements
Real Estate with a Minor in Management	Minor subject requirements will be the same as the Major subject requirements
College of Humanities and Sciences	
Communications & New Media with a Minor in Management	H1 pass or equivalent in Mathematics
Economics with a Minor in Business Analytics	H2 pass or equivalent in Mathematics or Further Mathematics
Economics with a Minor in Information Systems	H2 pass or equivalent in Mathematics or Further Mathematics
Psychology with a Minor in Management	H1 pass or equivalent in Mathematics
Data Science and Analytics with a Minor in Entrepreneurship	Very good H2 pass in Mathematics/Further Mathematics
Food Science and Technology with a Minor in Entrepreneurship	Good H2 pass or equivalent in Chemistry and a good H2 pass or equivalent in Biology or Mathematics / Further Mathematics or Physics or Computing
Life Sciences with a Minor in Entrepreneurship	Good H2 passes in Biology and Chemistry
Life Sciences with a Minor in Public Health	Good H2 passes in Biology and Chemistry
Mathematics with a Minor in Entrepreneurship	Good H2 pass or equivalent in Mathematics or Further Mathematics.
Quantitative Finance with a Minor in Information Security	Good H2 pass or equivalent in Mathematics or Further Mathematics.
Statistics with a Minor in Entrepreneurship	Good H2 pass or equivalent in Mathematics or Further Mathematics.
Statistics with a Minor in Information Security	Good H2 pass or equivalent in Mathematics or Further Mathematics.
College of Design and Engineering	
Biomedical Engineering with a Minor in Business	H2 pass in Mathematics or Further Mathematics
Biomedical Engineering with a Minor in Information Security	H2 pass or equivalent in Mathematics or Further Mathematics
Civil Engineering with a Minor in Infrastructure Management and Finance	H2 pass or equivalent in Mathematics or Further Mathematics

Computer Engineering with a Minor in Data Engineering	H2 pass in Mathematics or Further Mathematics and either Physics, Computing or Chemistry
Computer Engineering with a Minor in Management	H2 pass in Mathematics or Further Mathematics and either Physics, Computing or Chemistry
Electrical Engineering with a Minor in Business Analytics	H2 pass in Mathematics or Further Mathematics
Electrical Engineering with a Minor in Information Security	H2 pass in Mathematics or Further Mathematics
Engineering with a Minor in Data Engineering	H2 pass in Mathematics or Further Mathematics
Engineering with a Minor in Management	H2 pass in Mathematics or Further Mathematics
Industrial & Systems Engineering with a Minor in Business Analytics	H2 pass in Mathematics or Further Mathematics
Industrial & Systems Engineering with a Minor in Information Security	H2 pass in Mathematics or Further Mathematics
Infrastructure & Project Management with a Minor in Infrastructure Management and Finance	H2 pass in Mathematics or Further Mathematics
Statistics with a Minor in Information Security	H2 pass in Mathematics or Further Mathematics
Materials Science & Engineering with a Minor in Information Security	H2 pass in Mathematics or Further Mathematics
Mechanical Engineering (Aeronautical Engineering Specialisation) with a Minor in Management	H2 pass in Mathematics or Further Mathematics
Mechanical Engineering with a Minor in Business Analytics	H2 pass in Mathematics or Further Mathematics
Mechanical Engineering with a Minor in Information Security	H2 pass in Mathematics or Further Mathematics
School of Computing	
Business of Analytics with a Minor in Economics	Good H2 pass in Mathematics or Further Mathematics
Business of Analytics with a Minor in Entrepreneurship	H2 pass or equivalent in Mathematics or Further Mathematics
Business of Analytics with a Minor in Information Security	Good H2 pass in Mathematics or Further Mathematics
Business of Analytics with a Minor Quantitative Finance	H2 pass or equivalent in Mathematics or Further Mathematics
Business of Analytics with a Minor in Real Estate	Good H2 pass in Mathematics or Further Mathematics
Business of Analytics with a Minor in Statistics	H2 pass or equivalent in Mathematics or Further Mathematics
Computer Sciences Courses with a Minor in Entrepreneurship	H2 pass in Computing, Mathematics or Further Mathematics or Physics

Computer Sciences Courses with a Minor in Interactive Media	H2 pass in Computing, Mathematics or Further Mathematics or Physics
Computer Sciences Courses with a Minor in Management	H2 pass in Computing, Mathematics or Further Mathematics or Physics
Computer Sciences Courses with a Minor in Statistics	Good H2 pass or equivalent in Mathematics or Further Mathematics
Information Security with a Minor in Entrepreneurship	H2 pass in Computing, Mathematics or Further Mathematics or Physics
Information Security with a Minor in Management	H2 pass in Computing, Mathematics or Further Mathematics or Physics
Information Security with a Minor in Mathematics	Good H2 pass or equivalent in Mathematics or Further Mathematics
Information Security with a Minor Quantitative Finance	Good H2 pass or equivalent in Mathematics or Further Mathematics
Information Security with a Minor in Statistics	Good H2 pass or equivalent in Mathematics or Further Mathematics
Information Systems with a Minor in Economics	Good H2 pass in Mathematics or Further Mathematics
Information Systems with a Minor in Entrepreneurship	H2 pass in Computing or Mathematics or Further Mathematics
Information Systems with a Minor in Interactive Media	H2 pass in Computing or Mathematics or Further Mathematics
Information Systems with a Minor in Management	H2 pass in Computing or Mathematics or Further Mathematics

Further information on Minor Programmes can be found on

<https://www.nus.edu.sg/oam/docs/default-source/admissions/a-mmp.pdf>

More details can be found at the following websites:-

<https://www.nus.edu.sg/oam/apply-to-nus/singapore-cambridge-gce-a-level/subject-pre-requisites>

REQUIREMENTS FOR COURSES IN SMU

Programmes	Minimum Subject Requirements
All Courses	<ul style="list-style-type: none"> Passes in at least 3 H2 content-based subjects, 1 H1 content-based subject, Project Work (PW) and General Paper (GP)/Knowledge & Inquiry (KI). Other acceptable subject combinations include: 4 H2 content-based subjects, PW and GP; or 3 H2 content-based subjects, PW and KI. <p>For the H2 and H1 content-based subjects, at least one content-based subject must be from a contrasting discipline.</p> <ul style="list-style-type: none"> Interview for shortlisted applicants. Shortlisted Law/Computing & Law applicants must also take a writing test <p>Unless exempted from Mother Tongue Language (MTL) requirement, you must meet one of the following MTL requirements:</p> <ul style="list-style-type: none"> 'S' grade or better in MTL or General Studies in Chinese at H1 Level or Mother Tongue Language and Literature at H2 Level D7 grade or better in Higher MTL at O-Level Pass in MTL Syllabus B at A-Level <p>Successful applicants who have not met the MTL requirement will be offered Conditional Admission and are required to satisfy this requirement before graduating from SMU.</p>
Law/Computing & Law	<p>Law/Computing & Law applicants must meet at least one of the following requirements:</p> <ul style="list-style-type: none"> GP / KI grade of A or B (H1 / H2 level syllabus) GP of B3 or better (A / AO syllabus) <p>Applicants who fall short of the above minimum requirements may be considered on a case-by-case basis.</p>
Economics	<p>A good pass in H2 Math or H2 Further Math or Additional Maths at GCE O-Level. Applicants who do not have this requirement can still apply for consideration if they have alternative Mathematics content background. The School of Economics makes the final decision on admission.</p>
Computer Science	<p>A good pass in H2 Math or H2 Further Math or H2 Physics or H1 Math. Applicants who do not have this requirement can still apply for consideration if they have alternative Mathematics content background. The School of Information Systems makes the final decision on admission.</p>

More details can be found at the following websites:-

<https://admissions.smu.edu.sg/admissions/singapore-cambridge-gce-a-level>

REQUIREMENTS FOR COURSES IN SUTD

Programmes	Minimum Subject Requirements
All Courses	<ul style="list-style-type: none"> The University accepts applications from both Science and Arts stream students. You should possess good passes in at least three H2 content-based subjects, one H1 content-based subject, Project Work and attempted General Paper (GP) or Knowledge & Inquiry (KI). Other acceptable subject combinations include: four H2 content-based subjects, Project Work and GP; or three H2 content-based subjects, Project Work and KI. While it is recommended that you have taken Mathematics and a Science subject, i.e. Physics or Chemistry, at H2, we do consider your results in Mathematics and the Science subjects taken at H1, O-level or equivalent as well. You may also be encouraged to take bridging modules before start of term. <p>All Singapore Citizens and Permanent Residents are required to fulfil the MTL requirement for admission into full-time publicly-funded undergraduate programmes in the universities.</p> <p>The MTL requirement may be fulfilled through the following:</p> <ol style="list-style-type: none"> a D7 grade for Higher MTL at Singapore-Cambridge GCE O-Level (the iGCSE MTL First Language examination does not fulfil the requirement); or a pass in MTL 'B' or a S grade for H1 MTL/ MTL-in-lieu or H2 MTL Language and Literature or H1 General Studies in Chinese at Singapore-Cambridge GCE A-Level; or a pass in MTL A: Literature, or MTL A: Language and Literature, or Language B MTL at Standard or Higher Level at International Baccalaureate Diploma Programme (the IB Standard Level Language ab initio does not fulfil the requirement). <p>Those who have not fulfilled the MTL requirement may still apply for admission with no prejudice to their application. However, if accepted, they will be required to fulfil the MTL requirement during their course of study.</p> <p>Applicants who have been away from Singapore's school system for some years and have not kept up with the study of their MTL or a language that can be offered as MTL-in-lieu may apply for MTL exemption. The MTL exemption application will be facilitated by the universities as part of the university application, and the results made known to applicants who receive admission offers from the university. Please note that MOE does not accept direct applications for MTL exemption. The application for MTL exemption will also not prejudice the evaluation of the application for a place in the university.</p>
Notes on SAT	<ul style="list-style-type: none"> SAT, SAT Subject Tests and AP scores are optional. Do visit the US College Board website for details and registration.

More details can be found at the following websites:-

<https://www.sutd.edu.sg/Admissions/Undergraduate/Application/Admissions-Requirements/Singapore-Cambridge-GCE-A-Level>

Note that:

The qualifications listed for the various local universities are the minimum requirements for you to be considered for admission. It should be understood that meeting the minimum admission requirements does not indicate that the applicant can be admitted as admission to the University is based on open competition. It would be dependent on the applicant's academic standing, the courses he/she has selected and the competition amongst the applicants in the year of application. In exceptional cases, other achievements may be considered.

When computing the University Score, SUTD will take into consideration the following:

- The best three H2 and one H1 content-based subjects, of which one must be a contrasting subject
- GP or KI (taken in the same sitting as the H2 subjects)
- Project Work (PW)

Please note that SAT, SAT Subject Tests and AP scores are optional. Do visit the [US College Board website](#) for details and registration. You should indicate 6532 (SUTD Institution Code) on your SAT registration forms, so that the scores will be sent directly to us by the US College Board.

REQUIREMENTS FOR COURSES IN SUSS

Programmes	Minimum Subject Requirements
Full Time Undergraduate Programme	<ul style="list-style-type: none"> • Passes in at least 2 H2 content-based subjects and General Paper (GP) in the same sitting, a pass in Project Work (PW), and a pass in an H1 contrasting subject. • Shortlisted applicants may be required to undergo one or more interviews and/or take written admission or other evaluation tests as may be prescribed by SUSS from time to time. • All applications are considered individually on merit, and the offer of admission is dependent on the number of places available in individual programme. • If you do not have a Grade C6 in GCE 'O' level English Language (or equivalent), you may be required to take additional test(s) and/or English Language proficiency course(s). <p>Singapore Citizens and Permanent Residents with GEC A Level need to meet one of the following MTL requirements if you have the following education background:</p> <ul style="list-style-type: none"> - Minimum of D7 for the higher MTL paper taken at the GCE 'O' Level examination or minimum of 'S' grade for the H1 MTL paper or General Studies in Chinese or minimum of 'S' grade for the H2 paper taken at the GCE 'A' Level examination or a Pass in the MTL 'B' Syllabus paper at the GCE 'A' Level examination.
Law Programme	<p>The Law programme is open to Singaporeans and Permanent Residents only.</p> <ul style="list-style-type: none"> • Applicants to the LLB programme must have at least the GCE 'A' level with three H2 passes. • Demonstrate aptitude to practice law through taking the UK Law National Aptitude Test¹ <p>Additionally, applicants must also meet the English Language proficiency requirement and the following mother tongue (MTL) requirement:</p> <ul style="list-style-type: none"> - A good command of English provides a strong platform for a learner to successfully complete a degree programme. All Bachelor of Laws students who do not meet the essay passing grade during the admission interview will be required to complete SDE103 and SDE104 courses (fees are waived). - Minimum of D7 for the higher MTL paper taken at the 'O' Level examination or minimum of 'S' grade for the H1 MTL paper or General Studies in Chinese or minimum of 'S' grade for the H2 MTLL paper taken at the 'A' Level examination or pass in the MTL 'B' Syllabus paper at the 'A' Level examination <p>Applicants who have not satisfied the MTL requirement above may be admitted on a provisional basis and will be required to attain the MTL</p>

	<p>within the period of their university study before being permitted to graduate from SUSS.</p> <ul style="list-style-type: none"> • All eligible students will be assessed through admission interviews, a review of their personal statements on aspirations and motivations and any supporting evidence of their commitment to the practice of criminal and family law. <p>For more information please refer to: https://www.suss.edu.sg/law-programmes/admissions/eligibility</p>
--	---

For information about SUSS please refer to the following link: <https://www.suss.edu.sg/>

REQUIREMENTS FOR COURSES IN SIT

SIT is a university of applied learning and offers industry-focused degree programmes, integrating learning, industry and community targeted at growth industries. Established in 2009 and gazetted as an autonomous university in 2014, SIT currently has six distributed campuses, with its main campus in SIT@Dover. The university advocates the work-learn continuum and strives to instil within its students a culture of lifelong learning and continuous upskilling and reskilling. SIT also aims to cultivate in its students four distinctive traits that form the SIT-DNA: Thinking Tinkerers; Able to Learn, Unlearn and Relearn; Catalysts for Transformation; and Grounded in the Community.

Programmes	Minimum Subject Requirements
All Courses	<p>Applicants submitting the Singapore-Cambridge GCE A Levels must have obtained passes in at least two subjects at A/H2 Level and offered either General Paper (GP) or Knowledge and Inquiry (KI) in the same sitting.</p> <p>In addition, applicants must meet one of the following Mother Tongue Language (MTL) requirements:</p> <ul style="list-style-type: none">• A minimum 'S' grade for the H1 or H2 MTL paper or General Studies in Chinese taken at the GCE A Level examination• Pass in the MTL 'B' Syllabus paper at the A Level examination• A minimum D7 for the higher MTL paper taken at the O Level examination <p>For those who are exempted from MTL, the MOE-approved subject-in-lieu will be considered as their MTL subject. Those who have not fulfilled the MTL requirement may still apply for admission. Their application will be reviewed without prejudice. However, if accepted, they will be required to (i) attain any of the minimum requirements as a private candidate, or (ii) attend equivalent courses conducted by pre-approved language schools before being allowed to graduate.</p> <p>Some programmes have programme-specific requirements for application.</p> <p>Find out about the additional requirements: https://www.singaporetech.edu.sg/admissions/undergraduate/requirements/programme-specific-requirements</p>

For more information on SIT please refer to <https://www.singaporetech.edu.sg/>

H1 General Paper
Subject Code: 8807

Course Objectives

- 1 To better understand the world in which students live by fostering critical awareness of continuity and change in the human experience.
- 2 To better understand the nature of knowledge by appreciating the inter-relationship of ideas from across disciplines.
- 3 To broaden students' global outlook while remaining mindful of shared historical and social experiences in Singapore.
- 4 To develop maturity of thought and apply critical reading and creative thinking skills.
- 5 To develop the skills of clear, accurate and effective communication.
- 6 To develop the skills of evaluation of arguments and opinions.
- 7 To promote extensive and independent reading and research.

Course Content

Paper 1 (Essay)

The suggested topic areas are:

- Historical, social, cultural, economic, political and philosophical topics
- Science including its history, philosophy, general principles, current developments and applications
- Mathematical and geographical topics
- Literature and language
- Arts and crafts
- Topics of local interest and global concern.

Candidates will be tested on the maturity of thought appropriate to Pre-University students which would include an understanding of general principles and applications.

Paper 2 (Comprehension)

The course aims to develop the following abilities in students:

- 1 To better comprehend English prose passages as a whole and in detail
- 2 To infer relevant information
- 3 To summarise information
- 4 To evaluate information
- 5 To make observations of patterns and relationships
- 6 To apply understanding and interpretation in a task derived from the text(s)
- 7 To re-express material supplied in texts in continuous form
- 8 To gain knowledge and understanding of common English usage

Scheme of Assessment

Paper	Description	Duration	Marks	Weighting
1	Essay	1 hr 30 min	50	50%
2	Comprehension	1 hr 30 min	50	50%

Paper 1 Twelve questions will be set, of which candidates answer one. This will allow candidates the opportunity to express an informed, critical, creative and relevant response. Answers to questions in Paper 1 should normally be 500 to 800 words in length.

Paper 2 comprises a compulsory comprehension exercise which includes an application question, a summary and a variety of short questions.

H1 Project Work

Subject Code: 8808

Course Objectives

Project Work (PW) is a learning experience which aims to provide students with the opportunity to synthesise knowledge from various areas of learning, and critically and creatively apply it to real life situations. This process which enhances students' knowledge and enables them to acquire skills like collaboration, communication and independent learning prepares them for lifelong learning and the challenges ahead.

Learning Outcomes of Project Work

The learning outcomes identify the key areas of learning of the subject. Four learning outcomes are separately articulated: knowledge application, communication, collaboration and independent learning. While students learn to work in groups, they will also learn independently through self-reflection and evaluation of their own work processes. These learning outcomes exist in dynamic interplay rather than as compartmentalized and distinct categories. The following are the learning outcomes of PW:

- ***Knowledge Application***

Students will acquire the ability to make links across different areas of knowledge and to generate, develop and evaluate ideas and information so as to apply these skills to the project task.

- ***Communication***

Students will acquire the skills to communicate effectively and to present ideas clearly and coherently to a specific audience in both the written and oral forms.

- ***Collaboration***

Students will acquire collaborative skills through working in a team to achieve common goals.

- ***Independent Learning***

Students will be able to learn on their own, reflect on their learning and take appropriate action to improve it.

Objectives of Assessment

The assessment in PW aims to measure the extent to which the students have achieved the expected learning outcomes. During the course, the students have to demonstrate their ability, individually and as a group, by applying the knowledge learned to develop a project task.

Students will be assessed in the following areas:

- **Knowledge Application**

Candidates are expected to demonstrate the ability to generate, develop and evaluate ideas and information so as to apply these skills as they carry out a project task.

- **Communication**

Candidates are expected to demonstrate the ability to present ideas clearly and coherently to a specific audience in both the written and oral forms.

NOTE: *Collaboration and Independent Learning are not assessed.*

Scheme of Assessment

Candidates are required to complete the following 2 compulsory papers:

Paper 1a: Written Report

- Produce a **Written Report** of 2500 to 3000 words on the project.

Paper 1b: Insights & Reflections

- Submit an individual **Insights & Reflections** of 500 words based on the project.

Paper 2: Oral Presentation

- Give an **Oral Presentation** on the project and answer a question posed by the assessors.

H1 Mathematics
Subject Code: 8865

H1 Mathematics provides students with a foundation in mathematics and statistics that will support their business or social sciences studies at the university. It is particularly appropriate for students without Additional Mathematics background because it offers an opportunity for them to learn important mathematical concepts and skills in algebra and calculus that were taught in Additional Mathematics. Students will also learn basic statistical methods that are necessary for studies in business and social sciences.

Course objectives

To enable students to:

1. acquire mathematical concepts and skills to support their tertiary studies in business and the social sciences;
2. develop thinking, reasoning, communication and modelling skills through a mathematical approach to problem solving;
3. connect ideas within mathematics and apply mathematics in the context of business and social sciences; and
4. experience and appreciate the value of mathematics in life and other disciplines.

Use of Graphic Calculators (GC)

The use of GC will be expected. The examination papers will be set with the assumption that candidates will have access to a GC.

Course Requirements

Knowledge of the content of O-Level Mathematics is assumed.

Syllabus Outline

S/N	Topics	Sub-topics
1	Functions and Graphs	<ul style="list-style-type: none">• Exponential & Logarithm Functions & Graphing Techniques• Equations & Inequalities
2	Calculus	<ul style="list-style-type: none">• Differentiation• Integration
3	Probability & Statistics	<ul style="list-style-type: none">• Probability• Binomial Distribution• Normal Distribution• Sampling• Hypothesis Testing• Correlation coefficient & Linear regression

Assessment Objectives (AO)

There are three levels of assessment objectives for the examination.

The assessment will test candidates' abilities to:

- AO1 understand and apply mathematical concepts and skills in a variety of problems, including those that may be set in unfamiliar contexts, or require integration of concepts and skills from more than one topic;
- AO2 formulate real-world problems mathematically, solve the mathematical problems, interpret and evaluate the mathematical solutions in the context of the problems; and
- AO3 reason and communicate mathematically through making deductions and writing mathematical explanations and arguments.

Scheme of Assessment

There will be one 3-hour paper marked out of 100 as follows:

Section A (Pure Mathematics – 40 marks) will consist of about 5 questions of different lengths and marks based on the Pure Mathematics section of the syllabus.

Section B (Probability & Statistics – 60 marks) will consist of about 6 – 8 questions of different lengths and marks based on the Probability & Statistics section of the syllabus.

There will be at least two questions, with at least one in each section, on application of Mathematics in real-world contexts, including those from business and the social sciences. Each question will carry at least 12 marks and may require concepts and skills from more than one topic.

Candidates will be expected to answer **ALL** questions.

H2 Mathematics

Subject Code: 9758

H2 Mathematics is designed to prepare students for a range of university courses, including mathematics, sciences, engineering and related courses, where a good foundation in mathematics is required. It develops mathematical thinking and reasoning skills that are essential for further learning of mathematics. Through applications of mathematics, students also develop an appreciation of mathematics and its connections to other disciplines and to the real world.

Course Objectives

To enable students to:

1. acquire mathematical concepts and skills to prepare for their tertiary studies in mathematics, sciences, engineering and other related disciplines;
2. develop thinking, reasoning, communication and modelling skills through a mathematical approach to problem-solving;
3. connect ideas within mathematics and apply mathematics in the contexts of sciences, engineering and other related disciplines; and
4. experience and appreciate the nature and beauty of mathematics and its value in life and other disciplines.

Use of Graphing Calculators (GC)

The use of GC will be expected. The examination papers will be set with the assumption that candidates will have access to a GC.

H2 Math Syllabus Outline

S/N	Topic	Sub-Topics
Pure Mathematics		
1	Functions & Graphs	<ul style="list-style-type: none">• Functions• Graphs & Transformations• Equations & Inequalities
2	Sequences & Series	<ul style="list-style-type: none">• Sequences & Series
3	Vectors	<ul style="list-style-type: none">• Basic properties of vectors in two- & three dimensions• Scalar & vector products in vectors• Three-dimensional vector geometry
4	Introduction to Complex Numbers	<ul style="list-style-type: none">• Complex numbers expressed in cartesian form• Complex numbers expressed in polar form
5	Calculus	<ul style="list-style-type: none">• Differentiation• Maclaurin's Series• Integration Techniques• Definite Integrals• Differential Equations
Probability & Statistics		
6	Probability & Statistics	<ul style="list-style-type: none">• Probability• Discrete random variables• Normal distribution• Sampling• Hypothesis testing• Correlation coefficient & Linear regression

Course Requirements

Knowledge of the content of the O-Level Mathematics and Additional Mathematics is assumed.

Students who wish to offer H2 Math without O level Additional Mathematics are required to sit for a test on the relevant O level Assumed Knowledge. The objective of the test is to help students to make an informed decision on A level subject combination.

ASSUMED KNOWLEDGE

Content from O-Level Additional Mathematics	
ALGEBRA	
A1	Equations and inequalities <ul style="list-style-type: none"> conditions for a quadratic equation to have: <ol style="list-style-type: none"> two real roots two equal roots no real roots conditions for $ax^2 + bx + c$ to be always positive (or always negative) solving simultaneous equations with at least one linear equation, by substitution
A2	Indices and surds <ul style="list-style-type: none"> four operations on indices and surds rationalising the denominator
A3	Polynomials and partial fractions <ul style="list-style-type: none"> multiplication and division of polynomials use of remainder and factor theorems partial fractions with cases where the denominator is not more complicated than: <ul style="list-style-type: none"> $(ax + b)(cx + d)$ $(ax + b)(cx + d)^2$ $(ax + b)(x^2 + c^2)$
A4	Power, Exponential, Logarithmic, and Modulus functions <ul style="list-style-type: none"> power functions $y = ax^n$, where n is a simple rational number, and their graphs functions a^x, e^x, $\log_a x$, $\ln x$ and their graphs laws of logarithms equivalence of $y = a^x$ and $x = \log_a y$ change of base of logarithms function x and graph of $f(x)$, where $f(x)$ is linear, quadratic or trigonometric solving simple equations involving exponential and logarithmic functions
GEOMETRY AND TRIGONOMETRY	
B5	Coordinate geometry in two dimensions <ul style="list-style-type: none"> graphs of equations $y^2 = kx$ coordinate geometry of the circle with the equation in the form $(x - a)^2 + (y - b)^2 = r^2$ or $x^2 + y^2 + 2gx + 2fy + c = 0$
B6	Trigonometric functions, identities and equations <ul style="list-style-type: none"> six trigonometric functions, and principal values of the inverses of sine, cosine and tangent trigonometric equations and identities (see List of Formulae) expression of $a \cos \theta + b \sin \theta$ in the forms $R \sin(\theta \pm \alpha)$ and $R \cos(\theta \pm \alpha)$

Content from O-Level Additional Mathematics

CALCULUS

C7	<p>Differentiation and integration</p> <ul style="list-style-type: none"> derivative of $f(x)$ as the gradient of the tangent to the graph of $y = f(x)$ at a point derivative as rate of change derivatives of x^n for any rational n, $\sin x$, $\cos x$, $\tan x$, e^x and $\ln x$, together with constant multiples, sums and differences derivatives of composite functions derivatives of products and quotients of functions increasing and decreasing functions stationary points (maximum and minimum turning points and points of inflexion) use of second derivative test to discriminate between maxima and minima connected rates of change maxima and minima problems integration as the reverse of differentiation integration of x^n for any rational n, e^x, $\sin x$, $\cos x$, $\sec^2 x$ and their constant multiples, sums and differences integration of $(ax + b)^n$ for any rational n, $\sin(ax + b)$, $\cos(ax + b)$ and $e^{ax + b}$
----	--

Assessment Objectives (AO)

There are three levels of assessment objectives for the examination.

The assessment will test candidates' abilities to:

- AO1 understand and apply mathematical concepts and skills in a variety of problems, including those that may be set in unfamiliar contexts, or require integration of concepts and skills from more than one topic;
- AO2 formulate real-world problems mathematically, solve the mathematical problems, interpret and evaluate the mathematical solutions in the context of the problems; and
- AO3 reason and communicate mathematically through making deductions and writing mathematical explanations, arguments and proofs.

Scheme of Assessment

Paper	Description	Duration	Marks	Weighting
1	Pure Mathematics	3 hours	100	50%
2	Pure Mathematics and Probability & Statistics	3 hours	100	50%

Paper 1 (3 hours)

A paper consisting of about 10 to 12 questions of different lengths and marks based on the Pure Mathematics section of the syllabus.

There will be **at least two questions** (each at least 12 marks) on application of Mathematics in **real-world contexts**, including those from sciences and engineering. Candidates will be expected to answer *ALL* questions.

Paper 2 (3 hours)

A paper consisting of 2 sections, Sections A and B.

Section A (Pure Mathematics – 40 marks) will consist of about 4 to 5 questions of different lengths and marks based on the Pure Mathematics section of the syllabus.

Section B (Probability & Statistics – 60 marks) will consist of 6 to 8 questions of different lengths and marks based on the Probability & Statistics section of the syllabus.

There will be **at least two questions** in **Section B** (each at least 12 marks) on application of Mathematics in **real-world contexts**, including those from sciences and engineering.

Candidates will be expected to answer **ALL** questions.

Possible list of H2 Mathematics applications and contexts:

Applications and contexts	Some possible topics involved
Kinematics and dynamics (e.g. free fall, projectile motion, collisions)	Functions; Calculus; Vectors
Optimisation problems (e.g. maximising strength, minimising surface area)	Inequalities; System of linear equations; Calculus
Electrical circuits	Complex numbers; Calculus
Population growth, radioactive decay, heating and cooling problems	Differential equations
Financial maths (e.g. banking, insurance)	Sequences and series; Probability; Sampling distributions
Standardised testing	Normal distribution; Probability
Market research (e.g. consumer preferences, product claims)	Sampling distributions; Hypothesis testing; Correlation and regression
Clinical research (e.g. correlation studies)	Sampling distributions; Hypothesis testing; Correlation and regression

H3 Mathematics

Subject Code: 9820

H3 Mathematics provides students, who intend to pursue mathematics at the university, with an insight into the practice of a mathematician. It equips students with the knowledge and skills to understand and write mathematical statements, proofs and solutions, and the techniques and results that come in helpful in their work. Students will develop these competencies through proving mathematical results and solving *non-routine* mathematical problems in the course of the learning.

Course Objectives

To enable students to:

1. acquire advanced problem-solving skills and methods of proof by learning useful mathematical results and techniques to solve non-routine problems and prove statements
2. develop rigour in mathematical argument and precision in the use of mathematical language through the writing and evaluation of mathematical proofs and solutions
3. experience and appreciate the practice, value and rigour of mathematics as a discipline.

Use of Graphing Calculators (GC)

The use of GC will be expected. The examination papers will be set with the assumption that candidates will have access to GC.

Course Requirements

Knowledge of the content of **H2 Mathematics** is assumed. H3 Mathematics is for students who have a strong aptitude for, and are passionate about learning of Mathematics. **A distinction grade in H2 Mathematics and all other H2 subjects at the JC1 Promotional Examinations are required for students who intend to offer H3 Mathematics.**

Syllabus Outline

(1) H2 Mathematics content areas

(a) Functions, e.g. graphs, symmetries, derivatives, integrals, differential equations, limiting behaviours, bounds.

(b) Sequences and series, e.g. general terms, sum, limiting behaviours, bounds.

The examples in **(a)** and **(b)** above illustrate some types of problems that are based on content in H2 Mathematics.

(2) Additional content areas (beyond H2 Math)

(a) Inequalities: AM–GM inequality, Cauchy-Schwarz inequality, triangle inequality.

(b) Numbers: primes, coprimes, divisibility, greatest common divisor, division algorithm, congruences and modular arithmetic.

(c) Counting: distribution problems, Stirling numbers of the second kind, recurrence equations, bijection principle, principle of inclusion and exclusion.

The above define the expected scope of content knowledge that may be assessed. Notwithstanding the content areas defined above, students will also prove results and solve problems outside these defined areas or at the intersection of two or more such areas using their ability to understand and apply given definitions or results.

Mathematical Skills

Students are expected to apply the following skills:

Skills	Examples
a) Communicate mathematical ideas using mathematical language	<ul style="list-style-type: none">• Terms such as 'Definition' and 'Theorem'• Conditional statements (such as 'if P then Q' and 'P if and only if Q')• Necessary and sufficient conditions• Existential and universal quantifiers (such as 'there exists', 'for each', 'for all')• Logical connectives (such as 'and', 'or', 'not', 'implies')• Converse, inverse, contrapositive and negation of statements• Set notation and language
b) Develop and critically evaluate mathematical arguments using mathematical reasoning principles, including methods of proof	<ul style="list-style-type: none">• Direct proof• Proof by mathematical induction• Disproof by counterexample• Proof by contradiction• Proof of existence• Proof by construction• Pigeonhole principle• Symmetry principle
c) Solve mathematical problems using problem solving heuristics	<ul style="list-style-type: none">• Working backwards• Uncovering pattern and structure• Solving a simpler/similar problem• Considering cases• Restating the problem (e.g. contrapositive)

Assessment Objectives (AO)

There are three levels of assessment objectives for the examination.

The assessment will test candidates' abilities to:

- AO1 understand and apply mathematical concepts, skills and results to solve non-routine problems, including those that may require integration of concepts and skills from more than one topic;
- AO2 understand and apply advanced methods and techniques of proof to establish the truth or falsity of a mathematical statement and
- AO3 reason and communicate in precise mathematical language through the writing and evaluation of mathematical proofs and solutions.

Scheme of Assessment

For the examination in H3 Mathematics, there will be one 3-hour paper marked out of 100. The paper will consist of 8 to 10 questions of different lengths, and each question is worth 9 to 16 marks. Candidates will be expected to answer all questions.

H1 Biology
Subject Code: 8876

Course Requirement

Students intending to read H1 Biology should have knowledge and understanding of Biology at GCE O-Level, either as a single subject or as part of a balanced science course.

Outline of Syllabus

The syllabus is divided into four core ideas and one extension topic.

- A. The four core ideas are:
1. The Cell and Biomolecules of Life
 2. Genetics and Inheritance
 3. Energetics
 4. Biological Evolution
- B. The extension topic is:
1. Impact of Climate Change on Animals and Plants

Scheme of Assessment

Paper	Type of Paper	Duration	Marks	Weighting
1	Multiple Choice	1 h	30	33 %
2	Structured and free-response questions	2 h	60	67 %

Paper 1

This paper will consist of 30 compulsory multiple choice questions.

Paper 2

Section A (45 marks) will consist of a variable number of structured questions, all compulsory, including at least one data-based or comprehension-type question. The databased question(s) will constitute 10-15 marks of the paper.

Section B (15 marks) will consist of two free-response questions, from which candidates will **choose one**. The quality of scientific argumentation and written communication will be given a percentage of the marks available.

H2 Biology

Subject Code: 9744

Course Requirement

Candidates will be assumed to have knowledge and understanding of GCE O-Level Biology, as a single or as part of a balanced Science course.

Outline of Syllabus

The syllabus is divided into four core ideas and two extension topics.

- A. The four core ideas are:
 - 1. The Cell and Biomolecules of Life
 - 2. Genetics and Inheritance
 - 3. Energy and Equilibrium
 - 4. Biological Evolution
- B. The two extension topics are:
 - 1. Infectious Diseases
 - 2. Impact of Climate Change on Animals and Plants

Scheme of Assessment

Paper	Type of Paper	Duration	Marks	Weighting (%)
1	Multiple Choice	1 h	30	15
2	Structured Questions	2 h	100	30
3	Long Structured and Free-response Questions	2 h	75	35
4	Practical Paper	2 h 30 min	55	20

Paper 1

This paper will consist of 30 compulsory multiple choice questions.

Paper 2

A variable number of compulsory structured questions including data-based or comprehensive-type questions.

Paper 3

Section A comprises two or more compulsory **long** structured questions. There will be one or more stimulus materials which may be taken or adapted from a source such as a scientific journal or book which may not necessarily relate directly to the content of the syllabus. Questions may require candidates to explain terms used in the passage, analyse data, justify decisions, perform calculations and draw conclusions based on information in the stimulus material.

Section B comprises two free-response questions, from which candidates will **choose one**. The quality of scientific argumentation and written communication will be given a percentage of the marks available.

Paper 4 (Practical Paper)

This paper will assess the following skill areas:

- Planning (P): 5%
 - Manipulation, measurement and observation (MMO)
 - Presentation of data and observations (PDO)
 - Analysis, conclusions and evaluation (ACE)
- } 15%

H1 Chemistry

Subject Code: 8873

Course Requirement

Candidates will be assumed to have knowledge and understanding of Chemistry at GCE O-Level as a single subject or as part of a balanced science course.

Course Content

Core/Extension	Topics
Core Idea 1: Matter	1. Atomic Structure
Core Idea 2: Structure and Properties	1. Chemical Bonding 2. Theories of Acids and Bases 3. The Periodic Table
Core Idea 3: Transformation	1. The Mole Concept and Stoichiometry 2. Chemical Energetics: Thermochemistry 3. Reaction Kinetics 4. Chemical Equilibria
Extension: Materials	1. Nanomaterials 2. Polymers <ul style="list-style-type: none">- Introduction to Organic Chemistry- Isomerism- Hydrocarbons- Halogen derivatives- Hydroxy compounds- Carbonyl compounds- Carboxylic acids and esters- Amines and amides

Scheme of Assessment

Paper	Type of Paper	Duration	Weighting	Remarks
1	Multiple choice	1 h	33 %	30 questions (30 marks)
2.	Structured	2 h	67 %	<u>Sect A:</u> A variable number of structured questions including data-based questions. (60 marks) <u>Sect B:</u> 2 choose 1 (20 marks)

H2 Chemistry

Subject Code: (9729)

Course Requirement

Candidates will be assumed to have knowledge and understanding of Chemistry at GCE O-Level as a single subject or part of a balanced science course.

Course Content

Core/Extension	Topics
Core Idea 1: Matter	1. Atomic Structure
Core Idea 2: Structure and Properties	1. Chemical Bonding 2. The Gaseous State 3. Theories of Acids and Bases 4. The Periodic Table
Core Idea 3: Transformation	1. The Mole Concept and Stoichiometry 2. Chemical Energetics: Thermochemistry and Thermodynamics (Gibbs Free Energy and Entropy) 3. Reaction Kinetics 4. Chemical Equilibria
Extension	1. Chemistry of Aqueous Solutions <ul style="list-style-type: none"> - Acid-base Equilibria - Solubility Equilibria 2. Organic Chemistry <ul style="list-style-type: none"> - Introduction to Organic Chemistry - Isomerism - Hydrocarbons - Halogen derivatives - Hydroxy compounds - Carbonyl compounds - Carboxylic acids and derivatives - Nitrogen compounds 3. Electrochemistry 4. An Introduction to the Chemistry of Transition Elements

Scheme of Assessment

Paper	Type of Paper	Duration	Weighting	Remarks
1	Multiple choice	1 h	15 %	30 questions (30 marks)
2.	Structured	2 h	30 %	A variable number of structured questions with one or two data-based (75 marks)
3	Free response questions	2 h	35 %	<u>Sect A:</u> 3-4 compulsory free response questions (60 marks) <u>Sect B:</u> 2 choose 1 (20 marks)
4	Practical	2 h 30 min	20 %	Skills assessed are <ul style="list-style-type: none"> - Planning (P) - Manipulation, measurement and observation. (MMO) - Presentation of data and observations. (PDO) - Analysis, conclusions and evaluation. (ACE) (55 marks) Note: The assessment of (P): 5% The assessment of (MMO, PDO, ACE): 15%

H3 Chemistry

Subject Code: 9813

Course Requirement

H3 Chemistry is offered to JC2 students of strong ability and keen interest in chemistry, and is designed with an emphasis on independent and self-directed learning. Candidates should simultaneously offer H2 Chemistry and will be assumed to have knowledge and understanding of Chemistry at H2 level.

Course Content

Additional content in H3 Chemistry	Topics
1. Spectroscopic Techniques	1.1 Basic principles of Spectroscopy 1.2 Ultraviolet/visible Spectroscopy 1.3 Infra-red (IR) Spectroscopy 1.4 Nuclear Magnetic Resonance (NMR) Spectroscopy 1.5 Mass Spectrometry
2. Further Organic Mechanisms	2.1 Molecular Stereochemistry 2.2 Basic Physical Organic Chemistry 2.3 Nucleophilic Substitution 2.4 Elimination

Scheme of Assessment

Candidates will take a 2 h 30 min paper (100 marks total). This paper consists of 2 sections and will include questions that require candidates to integrate knowledge and understanding from different sections in the syllabus.

Section A	40 marks	This section will consist of a variable number of compulsory free response questions including 1 or 2 stimulus-based questions. The stimulus-based question(s) constitute(s) 15-20 marks for this paper.
Section B	60 marks	Candidates will be required to answer 2 out of 3 free response questions. Each question will carry 20 marks.

H1 Physics
Subject Code: 8867

Course Requirements

Students intending to read H1 Physics should have knowledge and understanding of Physics at GCE O-Level, either as a single subject or as part of a balanced science course. They should also be familiar with calculus, vectors, trigonometric relations and logarithmic expressions.

Course Content

The topics covered in H1 Physics are as follows:

Sections	Topics
I. Measurement	1. Measurement
II. Newtonian Mechanics	2. Kinematics 3. Dynamics 4. Forces 5. Work, Energy, Power 6. Motion in a Circle and Orbits
III. Electricity and Magnetism	7. Current of Electricity 8. D.C. Circuits 9. Electromagnetism
IV. Nuclear Physics	10. Nuclear Physics

Scheme of Assessment

Paper	Type of Paper	Duration	Weighting (%)	Marks
1	Multiple Choice	1 h	33	30
2	Structured Questions	2 h	67	80

H2 Physics
Subject Code: 9749

Course Requirements

Candidates will be assumed to have knowledge and understanding of GCE O-Level Physics, as a single subject or as part of a balanced Science course. They should also be familiar with calculus, vectors, trigonometric relations and logarithmic expressions.

Course Content

The topics covered in H2 Physics are as follows:

Sections	Topics
I. Measurement	1. Measurement
II. Newtonian Mechanics	2. Kinematics 3. Dynamics 4. Forces 5. Work, Energy, Power 6. Motion in a Circle 7. Gravitational Field
III. Thermal Physics	8. Temperature and Ideal Gases 9. First Law of Thermodynamics
IV. Oscillations and Waves	10. Oscillations 11. Wave Motion 12. Superposition
V. Electricity and Magnetism	13. Electric Fields 14. Current of Electricity 15. D.C. Circuits 16. Electromagnetism 17. Electromagnetic Induction 18. Alternating Current
VI. Modern Physics	19. Quantum Physics 20. Nuclear Physics

Scheme of Assessment

Paper	Type of Paper	Duration	Weighting (%)	Marks
1	Multiple Choice	1 h	15	30
2	Structured Questions	2 h	30	80
3	Long Structured Questions	2 h	35	80
4	Practical	2 h 30 min	20	55

H3 Physics

Subject Code: 9814

Introduction

The H3 Physics syllabus has been designed to build on and extend the knowledge, understanding and skills acquired from the H2 Physics (9749) syllabus. It caters to students of strong ability and keen interest in physics, and is designed with a strong emphasis on independent and self-directed learning. Students should simultaneously offer H2 Physics. The H3 Physics syllabus is meant to provide greater depth and rigour in the subject for students pursuing further studies in physics-related fields

Course Content

The topics covered in H3 Physics are as follows:

Sections	Topics
A. Newtonian Mechanics	1. Inertial Frames (non-relativistic) 2. Rotational Motion 3. Planetary and Satellite Motion
B. Electricity and Magnetism	4. Electric and Magnetic Fields 5. Capacitors and Inductors

Scheme of Assessment

There is one paper of 3 hours duration for this subject. This paper will consist of two sections and will include questions which require candidates to integrate knowledge and understanding from different areas of the syllabus.

Section A (60 marks)

This section will consist of a variable number of compulsory structured questions. The last of these will be a stimulus-based question which will constitute 15-20 marks.

Section B (40 marks)

This section will consist of a choice of two from three 20-mark longer structured questions. Questions will be set in which knowledge of differential and/or integral calculus will be advantageous.

H1 Art
Subject Code: 8879

Course Objectives

1. Cultivate deeper understanding and appreciation of visual arts within social and cultural contexts;
2. Develop visual literacy through the critical analysis and appraisal of artists and artworks;
3. Increase proficiency in the use of visual arts vocabulary;
4. Foster self-confidence and a sense of achievement through critical appraisal of the visual arts;
5. Nurture a life long interest in the arts.

Course Content

Candidates taking the H1 Level Art will be required to offer

Paper 1: Study of Visual Arts (SOVA)

The H1 Level Art Syllabus:

- emphasises the development of visual literacy through critical and creative thinking by encouraging personal responses to art appreciation.
- emphasises the development of critical thinking skills such as description, analysis, interpretation and evaluation.
- provides students with opportunities to respond to and discover insights from artists/artworks.

The content for Study of Visual Arts is organised along two broad themes:

Visual Arts and Representations and Visual Arts and Society

Visual Arts and Representations

- provides a broad framework for the investigation of form and content and touch on ideas and concepts underpinning visual representation.
- Topics: Realistic Representations, Abstract Representations, New Media Representations.

Visual Arts and Society

- Draws on the diverse realms of human experience to examine Art as a system for the communication of social values, beliefs and opinions.
- Topics: About People, About Society, About Culture.

Scheme of Assessment

Paper	Description	Weighting
Paper 1: Study of Visual Arts (Compulsory)	3-Hour Written Paper Candidates are required to complete two structured questions, accompanied by visual stimuli, as well as one essay; answering a total of three questions	100%

H2 Art
Subject Code: 9750

Course Objectives

1. Cultivate deeper understanding and appreciation of visual arts within social and cultural contexts;
2. Encourage experimentation and innovation through exploration and creative use of materials and processes;
3. Increase proficiency in the use of art and design principles to communicate ideas and concepts;
4. Develop critical and analytical skills through research, exploration and creation of artworks;
5. Foster self-confidence and a sense of achievement through the practice of visual arts;
6. Lay the foundation for life long interest in the visual arts.

Course Content

The study of Art at H2 level comprises two compulsory components,

Study of Visual Arts (SOVA) and **Studio Practice**.

(The course content for the Study of Visual Arts can be found in the H1 Art section.)

Studio Practice:

- engages students in the creation of artworks.
- provides opportunities for students to acquire a working understanding of various art elements and principles.
- develops competency in manipulating various art media for self-expression.
- enable students to acquire skills such as research, experimentation and exploration, idea development, personal reflection and evaluation in the process of creating artworks.

Scheme of Assessment

Paper	Description	Weighting
Paper 1: Study of Visual Arts (Compulsory)	3-Hour Written Paper	40%
Paper 2: Coursework (Compulsory)	One Coursework unit comprises the finished artwork and not more than eight A2 sheets of preliminary/supporting studies.	60%

H1 & H2 Economics
Subject Codes: 8843 (H1) and 9570 (H2)

Course Objectives for H1 (8843) and H2 (9570) Economics:

The H1 (8843) and H2 (9570) Economics syllabuses provide the basis for broad understanding of Economics. The syllabuses aim to develop in candidates:

1. an understanding of fundamental economic concepts, theories and principles, and of the tools and methods of analysis used by economists;
2. the ability to use the tools and methods of economic reasoning to explain and analyse economic issues, and to evaluate perspectives and decisions of economic agents;
3. the habit of reading critically, from a variety of sources, to gain information about the changing economic activities and policies at national and international levels;
4. the ability to use evidence in making well-reasoned economic arguments to arrive at rational and considered decisions.

Course Content H1 Economics (8843)

- **Theme 1: The Central Economic Problem**
- **Theme 2: Markets**
- **Theme 3: The National Economy**

Assessment Format for H1 Economics (8843):

Students sit for one written paper, comprising two compulsory case studies

Duration: 3 hrs	
Paper 1 (Case-Studies) (80 marks; weighted 100%)	Case Study Questions Candidates are to answer all questions for each case study. Each question carries <u>40 marks</u> .

Course Content for H2 Economics (9570)

- Theme 1: The Central Economic Problem
- Theme 2: Markets
- Theme 3: The National and International Economy

Assessment Format for H2 Economics (9570):

Students sit for two written papers, comprising case study and essay questions.

Total time: 4 hrs 30mins	
Paper 1 2hrs 30mins (40%)	Case Study Questions Candidates are to answer 2 compulsory case study questions. Each question carries <u>30 marks</u> .
Paper 2 2hrs 30mins (60%)	Essay Questions Section A comprises 3 essay questions focusing <i>mainly</i> on <u>microeconomics</u> and Section B comprises another 3 essay questions focusing <i>mainly</i> on <u>macroeconomics</u> . Candidates are to answer a total of 3 essay questions: One each from Section A & Section B and the third question can be chosen from either section. Each question carries <u>25 marks</u> .

*For a more detailed description of the syllabi, please refer to SEAB website at www.seab.gov.sg

H1 Geography

Subject Code: 8813

Course Objectives:

The syllabus requires students to develop an understanding of:

1. the uniqueness of different types of natural environments and places;
2. the interactions and interdependence between natural environments, societies and cultures at various scales;
3. the evolution of landscapes and development of issues over time;
4. the processes that shape natural environments, societies and cultures at various scales;
5. the connections, trends and patterns in different parts of Asia and the rest of the world;
6. a range of contemporary issues in different parts of Asia and the rest of the world through geographical perspectives;
7. different approaches to solve real-world problems and achieve sustainable development; and
8. the connections between different sub-fields of Geography.

Course Content

H1 Geography is designed for students to explore broad themes in geography. The first two themes, Climate Change and Flooding as well as, Urban Change emphasises on the understanding of human-environmental interactions, while the last theme on Geographical Investigation outlines the skills needed to conduct research in the preceding two themes. A brief introduction of each theme is as follows:

Theme 1 Climate Change and Flooding

- Climate and Climate Change: Tropical Climates and Atmospheric Processes, The effects of Climate Change
- Floods: Catchment Hydrology, Flooding in the Tropics

Theme 2 Urban Change

- Sustainable Urban Development: Sustainable Development, Issues in Sustainable Urban Development
- Liveability in Cities: Urbanisation and Liveability, Improving Liveability in Cities

Theme 3 Geographical Investigation

- Living with Rivers: Factors influencing Flood Risk and ways to mitigate it, Influence of Land Use on Infiltration Rates
- Urban Living today: Liveability of Urban neighbourhoods, Needs Analysis of the Elderly living in an Urban Neighbourhood

Scheme of Assessment

Duration: 3 hours (100%)		
Section A (25%)	One compulsory data-response question (DRQ) assessing students' mastery of Theme 3, Geographical Investigation.	Each DRQ will carry no more than five sub-parts. Section A and B carries 25 marks each.
Section B (25%)	One compulsory data-response question (DRQ) that assesses students' mastery of Themes 1 or 2.	
Section C (50%)	Two structured essay questions (SEQs) that assess students' mastery of Themes 1 and 2. There will be two options per theme. <ul style="list-style-type: none">• Theme 1- Either Qn 3 or Qn 4• Theme 2- Either Qn 5 or Qn 6 Each SEQ will comprise two sub-parts weighing part (a), 9 marks and part (b), 16 marks respectively. Each question carries 25 marks .	

H2 Geography

Subject Code: 9751

Course Objectives

Please refer to the course objectives listed in H1 Geography.

Course Content

H2 Geography examines four themes that would allow students to study Geography holistically as an integrated subject. It combines physical and human geography, exposing students to up-to-date topics within the discipline. There are four themes in total, with three out of four themes examined in Paper 1 and all four themes examined in Paper 2.

Theme 1: Tropical Environment

- Physical Processes in the Tropics
- Landscapes and Issues in the Tropics

Theme 2: Development, Economy and the Environment

- Development and the Global Economy
- Environment and Resources

Theme 3: Sustainable Development

- Climate Change and Energy
- Sustainable Urban Development

Theme 4: Geographical Investigation

- Living with Rivers
- People and the Economy
- Urban Living Today

Scheme of Assessment

Paper 1 – 3 hours (50%)	
Structured Essay Question (SEQs)	Three SEQs based on the following: <ul style="list-style-type: none">• Theme 1- Either Qn 1 or Qn 2• Theme 2- Either Qn 3 or Qn 4• Theme 3- Either Qn 5 or Qn 6 Each question carries 2 parts—12 marks and 20 marks respectively. Candidates must answer three questions. This paper carries 96 marks .
Paper 2 – 3 hours (50%)	
Data Response Question (DRQs)	Four DRQs based on the following: <ul style="list-style-type: none">• Theme 4-Qn 1• Theme 1- Qn 2• Theme 2- Qn 3• Theme 3- Qn 4 Each question will carry 25 marks and consist of no more than five parts. A maximum of 14 sources will be used in this paper. Candidates must answer all four questions. This section carries 100 marks .

H3 Geography (9822)

H3 Geography is intended for students who demonstrate strong aptitude, passion and interest in Geography. It provides opportunities for students to explore geographical issues and events in greater depth, and promotes an appreciation of the nature of geography as a discipline. The H3 Geography syllabus is designed to offer intellectual challenge and rigour as it expects students to think independently and develop critical inquiry. It takes the form of a taught element and a Research Essay on a topic of the student's choice. The H3 Geography syllabus builds on the competencies acquired in H2 Geography and requires students to demonstrate geographical knowledge in greater depth and breadth.

Students will submit a 3000–3500 word Research Essay based on a topic of their choice which had been approved in advance by Cambridge International Examinations. They will conduct an individual investigation in an area of geographical interest, examine a variety of evidence, and interpret and evaluate the evidence to reach informed conclusions. The Research Essay should be completed over an extended period of about 10 months between Nov/Dec in JC1 and Sept in JC2.

H1 History
Subject Code: 8821

Course Objectives

The H1 History syllabus seeks to:

1. develop interest and curiosity about the past;
2. develop historical understanding through
 - acquiring a sound knowledge of selected periods and issues;
 - examining historical issues and events through exploring a variety of historical sources;
 - applying historical concepts in examining historical issues and events;
 - using historical methods and processes;
3. think independently and make informed judgements of historical issues and events;
4. communicate substantiated arguments on historical issues and events in a clear and well-structured manner;
5. develop empathy with people living in diverse places and at different times; and
6. enhance a sense of identity.

Course Content

A. Compulsory Source-Based Study:

Theme I: Understanding the Cold War, 1945–1991

- The Emergence of Bipolarity after World War II
- A World Divided by the Cold War
- The End of Bipolarity

B. Thematic Study:

Theme II: The Cold War and Asia, 1945-1991

- Superpower Relations with China (1950-1979)
- The Cold War and Southeast Asia (1945-1991)

Theme III: The Cold War and the United Nations, 1945-2000

- Organisational Structure of the UN
- Effectiveness of UN Peacekeeping Operations in Maintaining Peace and Security

Scheme of Assessment

Candidates will be required to sit for **one** written paper of which the duration is **three hours**. The paper is divided into two sections. Candidates are required to answer the compulsory source-based study in Section A and two essay questions in Section B.

The Cold War and the Modern World (1945-2000)	
	Theme 1: Understanding the Cold War, 1945-1991
Section A (40%)	Candidates will answer the compulsory source-based case study set comprising two sub-questions. (a): Compare 2 sources (10 marks; 10%) (b): Test assertion using all sources (30 marks; 30%)
Section B (60%)	Candidates will answer: <ul style="list-style-type: none">• 1 out of 2 essay questions set on Theme II (30 marks; 30%)• 1 out of 2 essay questions set on Theme III (30 marks; 30%)

H2 History

Subject Code: 9752

Course Objectives

The H2 History syllabus seeks to:

1. develop in the learner the dispositions to be curious about the past and be open to multiple perspectives;
2. prepare learners for the future by equipping them with analytical and critical thinking skills such as the ability to assess evidence and evaluate conflicting interpretations to make informed judgements of the past and better understand the present;
3. help learners understand change and develop global awareness and cross-cultural skills in order to play an active role in future developments in society;
4. enhance the learner's sense of identity;
5. nurture informed citizens.

Course Content

Candidates must offer two papers, Papers 1 and 2.

Paper 1: Shaping the International Order, 1945-2000

Theme I

Understanding the Cold War, 1945–1991:

- The Emergence of Bipolarity after World War II
- A World Divided by the Cold War
- The End of Bipolarity

Theme II

Understanding the Global Economy:

- Growth and Problems in the Global Economy
- Rise of the Asian Tigers from the 1970s to 1990 (South Korea and Taiwan)

Theme III

Safeguarding International Peace and Security:

- Formation of the United Nations
- Political Effectiveness of the UN in Maintaining International Peace and Security
- UN Reforms

Paper 2: The Making of Independent Southeast Asia, Independence-2000

Theme I

Search for Political Stability:

- Approaches to Governance in SEA states
- Approaches to National Unity

Theme II

Economic Development after Independence

- Paths to Economic Development
- The Asian Financial Crisis

Theme III

Regional Conflicts and Cooperation

- Inter-state Tensions and Cooperation
- ASEAN

Scheme of Assessment

The examination consists of two papers, Paper 1 and Paper 2, each of 3 hours and taken at separate sittings. Each paper comprises a compulsory Source-based Study and essay questions. Candidates are expected to

AO1 Demonstrate Historical Knowledge and Understanding	<ul style="list-style-type: none">Recall, select and deploy historical knowledge appropriately, and communicate historical knowledge and understanding in a clear and effective manner.
AO2 Critically Analyse and Evaluate Historical Issues	<ul style="list-style-type: none">Construct historical explanations that demonstrate an understanding of historical concepts and issues within a historical period.Where appropriate, construct historical explanations that assess different approaches to and interpretations of historical issues.Make judgements based on reasoned consideration of historical evidence and interpretations.
AO3 Interpret and Evaluate Sources	<ul style="list-style-type: none">Interpret, evaluate and use source materials in context as historical evidence.Make judgements based on reasoned consideration of historical sources.

Paper 1: Shaping the International Order, 1945-2000 (50% weighting)

Section	Item Description	Assessment Objectives	Marks
A (Source-Based Study)	Theme I: Understanding the Cold War, 1945–1991 Candidates will answer the compulsory Source-Based Study question, comprising two sub-questions: a) Compare two sources (10 marks; 5%) b) Test assertion using all sources (30 marks; 15%)	AO1 + AO3	40 marks (20%)
B (Essays)	Candidates will answer: <ul style="list-style-type: none">1 out of 2 essay questions set on Theme II (30 marks; 15%).1 out of 2 essay questions set on Theme III (30 marks; 15%).	AO1 + AO2	60 marks (30%)

Paper 2: The Making of Independent Southeast Asia, Independence to 2000 (50% overall weighting)

Section	Item Description	Assessment Objectives	Marks
A (Source-Based Study)	Theme III: Regional Conflicts and Cooperation Candidates will answer the compulsory Source-Based Study question, comprising two sub-questions: a) Compare two sources (10 marks; 5%) b) Test assertion using all sources (30 marks; 15%)	AO1 + AO3	40 marks (20%)
B (Essays)	Candidates will answer: <ul style="list-style-type: none">1 out of 2 essay questions set on Theme II (30 marks; 15%).1 out of 2 essay questions set on Theme III (30 marks; 15%).	AO1 + AO2	60 marks (30%)

H3 History (9823)

H3 History is intended for students who demonstrate strong aptitude, passion and interest in History. It provides opportunities for students to explore historical issues and events in greater depth, and promotes an appreciation of the nature of history as a discipline. The H3 History syllabus is designed to offer intellectual challenge and rigour as it expects students to think independently and develop critical inquiry. It takes the form of a taught element and a Research Essay on a topic of the student's choice. The H3 History syllabus builds on the competencies acquired in H2 History and requires students to demonstrate historical knowledge in greater depth and breadth.

Students will submit a 3000–3500 word Research Essay based on a topic of their choice which had been approved in advance by Cambridge International Examinations. They will conduct an individual investigation in an area of historical interest, examine a variety of evidence, and interpret and evaluate the evidence to reach informed conclusions. The Research Essay should be completed over an extended period of about 10 months between Nov/Dec in JC1 and Sept in JC2.

Literature in English
Subject Codes: 8832 (H1), 9509 (H2), 9805 (H3)

Course Objectives

To develop in students:

1. an appreciation of, and informed personal response to, Literature in English
2. a love of reading, and the ability to read critically
3. an understanding of the historical and cultural contexts for literary production
4. an understanding of the nature and methods of literary study
5. the interdependent skills of reading, analysis and communication
6. effective, persuasive and appropriate communication of ideas

Assessment Objectives

Candidates should be able to:

1. make an informed personal and critical response to texts and account for their responses
2. demonstrate an understanding of how the literary context of a text informs their understanding
3. critically analyse and evaluate ways in which writers' choices of form, structure and language shape meaning
4. clearly communicate the knowledge, understanding and insights appropriate to literary study

Scheme of Assessment

- There is **one** compulsory paper (Paper 1) that **both H1 and H2** candidates will offer.
- There are **two** elective papers (Papers 2 or 3) available.

The College offers Paper 3 to H2 candidates.

- Each paper will be three hours long. Candidates will answer three questions in each paper. Questions are given equal weighting in the computation of marks for the paper (i.e. $33\frac{1}{3}\%$ each).
- Examinations are **open book**: candidates will be allowed to bring copies of their set texts into the examination room.

Paper 1: Reading Literature (Compulsory Paper)

Paper 1 is an introductory paper designed to provide students with a broad exposure to literary study, focusing on the three genres of writing in Literature.

It will consist of **three sections**, each centred on a particular genre.

Section A: Poetry

(H2) This will be **an unseen section** in which **two questions will be set** focusing primarily on response and comparison skills. These questions will require the candidate to respond to and critically compare two unseen poems. The candidate will answer **one question only**.

(H1) This will be **an unseen section** in which **two questions will be set** focusing primarily on response skills. Students will be required to respond critically to a single unseen poem. The candidate will answer **one question only**.

Section B: Prose and Section C: Drama

In these two sections, the student (**H1 & H2**) will study **one novel** in Section B and **one play** in Section C.

Two questions will be set for **each text** in each section, focusing primarily on analysis skills. One question will be an essay question and the other will be a passage-based question. The candidate will answer **one question on each text**.

Papers 2 - 3: Elective Papers (H2 only)

These papers are designed to allow students to build on the foundation gained in Paper 1, and to study Literature in greater depth. **Candidates study only one elective paper.** Candidates will study **three texts** in their chosen paper. The examination consists of three sections.

- **Section A** will consist of unseen extracts on the period or topic. **Two** questions will be set of which candidates will be required to do **one**. These questions will require the candidate to respond critically to the extracts set.
- **Section B** will focus on a comparison of two of the set texts. **Two** questions will be set of which candidates will be required to do **one**.
- **Section C** will focus on essay questions set on all three texts. The same texts used for Section B should **not** be used for Section C. **Two** questions will be set on each text of which the candidate will be required to do **one**.

H3 Literature

This is intended for students who display an exceptional ability and interest in the study of Literature, and are willing to pursue their studies to a greater depth and with greater specialisation.

H3 students will be assessed via a **research essay**, written on a topic chosen with the guidance of a teacher and the approval of CIE. This essay should be **3,000-3,500 words in length**.

In addition, the students have to produce **an evaluative commentary** on the essay of **800-1200 words in length**.

The essay should focus on an area of literary study, show evidence of extensive reading and research, adhere to an academic essay format and use conventions such as bibliography, references, and in-text citations. The essay should be completed over an extended period of 10 months in JC2.

H2 Chinese Language and Literature 华文与文学

Subject Code: 9575/1, 9575/2 & 9575/3

- 1 本科是遵照教育部《大学先修班华文课程标准》的教学目标及教学内容而设的。修完该课程的二年级学生在高二年底参加考试。
- 2 本科试卷包括下列三个部分：
 - 试卷（一）语文卷（作文）（笔答） 1 小时 15 分钟（35/17.5%）
 - 试卷（二）语文卷（语文理解与运用）（电子版考试）1 小时 45 分钟（65/32.5%）
 - 试卷（三）文学卷（笔答） 3 小时（100/50%）
- 3 试卷一考查学生的语文运用能力。学生在考作文时准予使用教育部所规定的词典。
- 4 试卷二考查学生的语文运用能力，考试以电脑输入方式进行。
- 5 试卷三考查学生对文学教材的理解、欣赏和分析能力，考试以开卷形式进行，考生可携带所规定的文本进场。
- 6 出题蓝图：

试卷（一）：语文部分（写作）（35 /17.5%）

序数	考查项目	方式	范围	题数	分数比重
一	作文	开放式	抒情文、记叙文、说明文、议论文；准许学生使用教育部所规定的词典。	4 选 1	35/17.5%

试卷（二）：语文部分（语文理解与应用）（电子版考试）（65 /32.5%）

序数	考查项目	方式	范围	题数	分数比重
一	阅读理解一	开放式	-	5	32/15%
二	阅读理解二	*开放式	-	4	33/15%

*根据两个生活语料设题，如报章社论、新闻报道、通告、广告、海报、报告书、建议书、网上论坛贴文、博客文章、电邮等，其中一道试题是短评。

试卷（三）：文学部分（100/50%）

序数	考查项目	方式	范围	题数	分数比重
一	古代散文与诗词	开放式	指定文言文 5 篇	必答题	10/5%
			指定诗词 9 首（古代 6 首；现当代 3 首）	2 选 1	15/7.5%
二	现当代小说	开放式	指定短篇小说 4 篇	2 选 1	25/12.5%
三	现代戏剧	开放式	指定现代戏剧：郭宝崑戏剧	2 选 1	25/12.5%
四	文学作品赏析	开放式	课外文学作品：微型小说和现当代诗歌	2 选 1	25/12.5%

表一：语文部分的课程框架

三大主题框架		
关系	变化	选择

表二：H2 指定文学作品包括：

文言文篇目			
序号	作品	作者	备注
1	《邹忌讽齐王纳谏》	-	先秦
2	《桃花源记》	陶渊明	晋
3	《马说》	韩愈	唐
4	《纵囚论》	欧阳修	宋
5	《柳敬亭说书》	张岱	明
韵文篇目			
序号	作品	作者	备注
1	古诗十九首（其一）《行行复行行》	----	古诗
2	《行路难》（其一）	李白	唐诗
3	《旅夜书怀》	杜甫	唐诗
4	《鹊桥仙》（纤云弄巧）	秦观	宋词
5	《念奴娇》（大江东去）	苏轼	宋词
6	《声声慢》（寻寻觅觅）	李清照	宋词
7	《心跳》	闻一多	新诗
8	《苹果定律》*	南子	新诗
9	《爱的辩证》（一题两式）	洛夫	新诗
现当代小说			
序号	作品	作者	备注
1	《药》	鲁迅	短篇小说
2	《一把青》	白先勇	短篇小说
3	《本次列车终点》	王安忆	短篇小说
4	《不存在的情人》*	英培安	短篇小说
现代戏剧			
序号	作品	作者	备注
1	戏剧两部：* 《傻姑娘与怪老树》 《嗟吓店》	郭宝崑	本地戏剧

*本地作品

H2 Tamil Language and Literature
Subject Code: 9577/1, 9577/2 & 9577/3

சிங்கப்பூர் - கேம்பிரிட்ஜ் பொதுக் கல்விச் சான்றிதழ்
(மேல் நிலைத் தேர்வு)

உயர்தரம் 2 தமிழ் மொழி இலக்கியம்

உயர்தரம் 2 தேர்வு எழுதுவோர் வினாத்தாள் ஒன்றுக்கு விடையளிப்பதுடன் வினாத்தாள் இரண்டு மற்றும் வினாத்தாள் மூன்றிற்கும் விடையளிக்க வேண்டும்.

வினாத்தாள் 1 9577/1 கட்டுரை

கொடுக்கப்பட்டுள்ள நான்கு தலைப்புகளில் ஏதேனும் ஒன்றுக்கு 350 சொற்களில் **கட்டுரை** எழுத வேண்டும்.
(35 மதிப்பெண்கள்)

வினாத்தாள் 2 9577/2 (மின்னியல் தேர்வு)

இவ்வினாத்தாளில் இரண்டு பிரிவுகள் உள்ளன.

‘அ’ பிரிவில் ஒரு பனுவலும் அதனையொட்டி ஐந்து வினாக்களும் இடம்பெற்றுள்ளன.
‘ஆ’ பிரிவில் இரண்டு பனுவல்களும் அவற்றையொட்டி நான்கு வினாக்களும் இடம்பெற்றுள்ளன. இவ்விரு பனுவல்களையும் கருத்தூன்றிப் படித்து இவற்றையொட்டி அமைந்த வினாக்கள் அனைத்துக்கும் சொந்த நடையில் விடை எழுத வேண்டும்.

அ பிரிவு (32 மதிப்பெண்கள்)

ஆ பிரிவு (33 மதிப்பெண்கள்)

வினாத்தாள் 3 9577/3 இலக்கியம்

நாவல் மற்றும் சிறுகதை, கவிதை, நாடகம், இலக்கியத் திறனாய்வு என்ற நான்கு பிரிவுகளும் இலக்கியம் பயிலும் மாணவர்களுக்குரியது. மொத்தம் நான்கு வினாக்களுக்கு விடைஎழுத வேண்டும். ஒவ்வொரு வினாவிற்கும் 25 மதிப்பெண்கள் வழங்கப்படும்.
(மொத்த மதிப்பெண்கள் 100)

H1 Chinese 华文
Subject Code: 8655/1 & 8655/2

- 1 所有修完中学华文课程的学生必修，并于高一年底参加‘A’水准考试。考获‘O’水准高级华文等级 A1 – D7 的学生可以免修。
- 2 本科试卷是遵照教育部《大学先修班华文课程标准》的相关教学目标及教学内容而编制的。课程的教学目标旨在加强学生的听说读写和语言综合运用能力，使学生能够有效地与人沟通。
- 3 本科试卷主要考查学生下列语文能力：
 - 聆听
 - 会话
 - 词语的认识和语言的应用
 - 阅读理解
 - 写不同文体的文章
- 4 考查方式：
本科试卷包括下列两个试卷：
试卷一：写作（60 分），语文理解与运用（80 分）

试卷		考查项目	方式	范围	题数	分数/比重	备注
一	第一部分	作文	开放式	记叙文 说明文 议论文	4 选 1	60/30%	字数在 500 字以上。 准许学生使用教育部所规定的词典。
	第二部分	综合填空	多项选择	一个短文	10	20/10%	
		阅读理解一	多项选择 自由作答	1 至 2 个生活语料，如广告、传单、新闻报道等	6	20/10%	
		阅读理解二	自由作答 长文缩短	一个短文 根据阅读理解二篇章的段落缩写程不超过 70 个字的短文	9	40/20%	
共					26	140/70%	

试卷二：口试(50 分)，听力理解 （10 分）

试卷	考查项目	方式	范围	题数	分数/ 比重	备注
二	口试					
	1) 口头报告	开放式	H1 课程的三大主题 1. 文化 2. 关系 3. 变化	1	20/10%	考生根据所提供的话题，结合录像短片的内容，呈献一个不超过 2 分钟的口头报告。
	2) 讨论	开放式		1	30/15%	主考员根据口头报告的内容跟考生进行讨论。
	听力理解	听录音， 然后回答 多项选择 式的题目	日常会话、广播、 访谈、故事、新闻 报道等。	10	10/5%	
共					60/30%	

Chinese B
Subject Code: 8611/1, 8611/2 & 8611/3

1. 所有中学华文 B 课程，以及 O 水准华文考获 D7-F9 的学生必修。
2. 本科试卷是遵照教育部《高中华文 B 课程标准》的教学目标及教学内容而设的。课程旨在以学生的先备知识与技能为基础，进一步强化其听、说、读、写、口语与书面互动的能力。
3. 本科考试包括下列三个试卷，总共 100%。

试卷一：写作（20%）

试卷	考查项目	方式	范围	题数	分数/比重	备注
一	实用文	开放式	电子邮件 日记	2 选 1	20/20%	<ul style="list-style-type: none"> 在电脑上作答并通过电脑系统呈交答案。 字数在 200 字以上，准许学生使用教育部所规定的词典。
共				1	20/20%	

试卷二：语文理解与应用（30%）

试卷	考查项目	方式	范围	题数	分数/比重	备注
二	语文应用	多项选择	3 至 4 个段落或短文	10	10/10%	<ul style="list-style-type: none"> 在电脑上作答并通过电脑系统呈交答案。
	阅读理解	多项选择	3 至 4 个实用性语料，如广告、传单、新闻报道、日常对话等。	10	20/20%	
共				20	30/30%	

试卷三：口试（35%）与听力理解（15%）

序数	考查项目	方式	范围	题数	分数比重	备注
一	口试					
	1) 口头报告	报告	华文 B 课程的主题： “文化”	1	15/15%	根据制定的主题（文化），呈献一个不超过 2 分钟的口头报告。
	2) 会话	对话	华文 B 课程的主题： “关系” “变化”	1	20/20%	
二	听力理解	听录音，然后回答多项选择式的题目	6 个语料，如日常会话、广告、故事、新闻报道等。	10	15/15%	
共				12	50/50%	

BAHASA MELAYU H1
Kod Subjek: 8656/1 & 8656/2

BAHASA MELAYU B
Kod Subjek: 8613/1, 8613/2 & 8613/3

Matlamat

Kursus Bahasa Melayu H1 Peringkat Lanjutan (BM H1) dan Bahasa Melayu B Peringkat Lanjutan (BM B) bertujuan membangun pelajar-pelajar yang aktif dalam bahasa Melayu untuk berkomunikasi secara cekap dalam kehidupan seharian. Makanya, kedua-dua kurikulum ini memberikan penekanan untuk meningkatkan pengetahuan dan kemahiran mendengar, bertutur, membaca, menulis, interaksi lisan dan interaksi penulisan yang diperoleh di sekolah rendah dan menengah.

Para pelajar juga akan memperoleh, membangun dan mengaplikasikan kemahiran-kemahiran daripada tiga domain kemahiran abad ke-21 - Kemahiran Komunikasi, Kolaborasi dan Informasi; Literasi Sivik, Kesedaran Global dan Kemahiran Silang Budaya; dan Kemahiran Berfikir Kritis dan Inventif

Kandungan

Kurikulum BM H1 dan BM B akan diajarkan berasaskan kerangka tiga tema luas, iaitu **Budaya, Perhubungan dan Perubahan**.

Format Penilaian bagi Bahasa Melayu H1 Peringkat Lanjutan

Kertas	Bahagian	Komponen	Markah	Timbangan
Kertas 1 (3 jam)	Bahagian 1 (1 jam 30 minit)	Karangan 1. Ekspositori 2. Naratif/Deskriptif 3. Argumentatif 4. Rangsangan grafik (terdiri daripada 3-4 gambar)	60	30%
	Bahagian 2 (1 jam 30 minit)	Penggunaan Bahasa, Kefahaman & Peringkasan A. Peribahasa (10m/5%) B. Kefahaman 1: (10m/5%) C. Mengedit Teks (20m/10%) D. Kefahaman 2: (40m/20%)	80	40%
Kertas 2 (45 minit)	Lisan (15 minit)	A: Penyampaian Lisan (2 minit)	20	10%
		B: Perbincangan berdasarkan Penyampaian Lisan	30	15%
	Kefahaman Mendengar (30 minit)	10 soalan berbentuk aneka pilihan (MCQ) berdasarkan lima teks autentik pelbagai genre misalnya dialog, rencana, cerpen, berita ringkas, pengumuman dll.	10	5%
Jumlah			200	100%

Format Penilaian bagi Bahasa Melayu B Peringkat Lanjutan

Kertas	Komponen		Markah	Timbangan
Kertas 1 (50 minit)	Penulisan Fungsional 1. E-mel 2. Blog, forum dan lain-lain lagi berdasarkan rangsangan autentik (gambar, poster dan lain-lainnya)		20	20%
Kertas 2 (1 jam)	Penggunaan Bahasa dan Kefahaman 1. Tatabahasa (10m) 2. Kefahaman (20m)		30	30%
Kertas 3 (45 minit)	Lisan (15 minit)	A: Penyampaian Lisan (2 minit berdasarkan topik pilihan)	15	15%
		B: Perbualan (berdasarkan klip video)	20	20%
	Kefahaman Mendengar (30 minit)	10 soalan berbentuk aneka pilihan (MCQ) berdasarkan enam teks autentik pelbagai genre seperti iklan, risalah, menu dan laporan berita.	15	15%
Total			100	100%

Perhatian:

Kursus Bahasa Melayu B Peringkat Lanjutan ialah lanjutan daripada kursus Bahasa Melayu B di peringkat 'O'. Oleh sebab mata pelajaran ini bukan dianggap sebagai mata pelajaran peringkat H1 atau H2, pelajar hanya diberikan gred 'Kepujian' (*Merit*), 'Lulus' (*Pass*) atau 'Gagal' (*Ungraded*).

H1 Tamil
Subject Code: 8657

சிங்கப்பூர் - கேம்பிரிட்ஜ் பொதுக் கல்விச் சான்றிதழ்
(மேல் நிலைத் தேர்வு)

தமிழ்மொழிப் பாடத்திட்டம்
உயர்தரம் 1 தமிழ்மொழி (**H1 TL 8657/1 & 8657/2**)

உயர்தரம் 1 தேர்வு எழுதுவோர் வினாத்தாள் ஒன்றுக்கு விடையளிப்பதுடன் வாய்மொழித் தேர்விலும் கேட்டல் கருத்தறிதல் தேர்விலும் பங்கேற்க வேண்டும்.

வினாத்தாள் 1 8657/1 (மூன்று மணி நேரம்)
வினாத்தாள் இரண்டு பகுதிகளைக் கொண்டிருக்கும்.

பகுதி 1

கொடுக்கப்பட்டுள்ள நான்கு தலைப்புகளுள் ஏதேனும் ஒன்றினைப்பற்றி 300 சொற்களில் கட்டுரை எழுத வேண்டும். (60 மதிப்பெண்கள்)

பகுதி 2

- | | |
|------------------------------|-------------------|
| A1 பிழை திருத்தம் | (10 மதிப்பெண்கள்) |
| A2 மரபுத்தொடர்கள் இணைமொழிகள் | (10 மதிப்பெண்கள்) |
| B3 முன்னுணர்வுக் கருத்தறிதல் | (20 மதிப்பெண்கள்) |
| C4 சுயவிடைக் கருத்தறிதல் | (40 மதிப்பெண்கள்) |

தாள் 2 8657/2 வாய்மொழித் தேர்வு

- | | |
|--|-------------------|
| 1 ஒளிக்காட்சியை ஒட்டிய வாய்மொழிப் படைப்பு | (20 மதிப்பெண்கள்) |
| 2 வாய்மொழிப் படைப்பை ஒட்டிய கருத்துரையாடல் | (30 மதிப்பெண்கள்) |
| வினாத்தாள் 2 8657/2 கேட்டல் கருத்தறிதல் | (10 மதிப்பெண்கள்) |
| மொத்த மதிப்பெண்கள் 200 (100%) | |

TAMIL 'B'
Subject Code: 8614

சிங்கப்பூர் - கேம்பிரிட்ஜ் பொதுக் கல்விச் சான்றிதழ்
(மேல் நிலைத் தேர்வு)
தமிழ்மொழிப் பாடத்திட்டம்

TAMIL 'B' (8614/1, 8614/2 & 8614/3)
இப்பாடம் மொத்தம் மூன்று வினாத்தாள்களைக் கொண்டது.

வினாத்தாள் 1 8614/1 (50 நிமிடங்கள்)

மின்னஞ்சல் அல்லது வலைப்பூ ஆகிய இரண்டில் ஏதேனும் ஒன்றினைத் தேர்வு செய்து 125 சொற்களுக்குக் குறையாமல் கணினியில் தட்டச்சு செய்ய வேண்டும்.

வினாத்தாள் 2 8614/2 (1மணி நேரம்)

- A1 முன்னுணர்வுக் கருத்தறிதல்
- A2 முன்னுணர்வுக் கருத்தறிதல்
- A3 முன்னுணர்வுக் கருத்தறிதல்
- B4 கருத்து விளக்கப்படக் கருத்தறிதல்
- C5 தெரிவு விடைக் கருத்தறிதல்
- C6 தெரிவு விடைக் கருத்தறிதல்
- C7 தெரிவு விடைக் கருத்தறிதல்

தாள் 3 8614/3 வாய்மொழித் தேர்வு

இவ்வினாத்தாள் வாய்மொழிப் படைப்பு மற்றும் ஒளிக்காட்சியை ஒட்டிய உரையாடல் பகுதிகளை உள்ளடக்கி இருக்கும்.

தாள் 3 8614/3 கேட்டல் கருத்தறிதல்

இவ்வினாத்தாள் கேட்டல் கருத்தறிதல் பகுதியை உள்ளடக்கியிருக்கும்.

Physical Education

Physical education is an integral aspect of St Andrew's Junior College's holistic education anchored in the belief in developing all-rounded individuals who are primed to live and work in a globalised world.

The purpose of physical education is to enable students to demonstrate individually and with others the physical skills, practices and values to enjoy a lifetime of active, healthy living.

Objectives

The physical education programme develops in students:

A range of skills through participation in regular and varied physical education experiences. These skills enable students to enjoy movement, discover interests, and achieve personal goals related to participation in physical activity.

Competency in movement. This provides the foundation for continual skill acquisition and facilitates future successful participation in physical activity resulting from changing life patterns.

Course Content

1. Every student will be given the opportunity to participate in at least 3 physical activities.
2. Students are given the opportunity to select from a range of activities provided by the school.
3. Students will be given the opportunity to play in recreational competitions, and to participate in organising them.
4. Students will attend sports/health related talks.

Assessment

Every student receives training towards meeting the standards of the Physical Fitness Test (PFT). The PFT is conducted annually for JC2 students in the 1st semester and is compulsory for all students except those certified medically unfit to take the test.

There are specific regulations governing the conduct of physical education. These are:

1. Attendance will be taken at all PE sessions. Absentees must provide to their PE teachers at the earliest opportunity, proper document (e.g. medical certificates) to support their absenteeism, and may have to make up for missed PE lessons.
2. Only students with valid medical certificates will be exempted from PE lesson.
3. Students wishing to excuse themselves from PE lessons must report to their PE teachers in advance to seek permission.
4. Students who are excused from PE lessons must remain in the designated location during PE lessons.
5. Students not properly attired for PE lessons will be considered as being absent. They may then have to make up for their absence on stipulated days assigned by the PE Department. Only the official college PE T-shirt and shorts are accepted as proper PE attire.
6. Student representatives of various CCAs are not exempted from PE lessons unless their respective CCA teachers-in-charge have sought specific permission on their behalf from HOD PE/CCA.

Weight Management Programme

The height and weight of all students are measured at least twice a year. Students who are found to be not within the accepted weight range will be enrolled in our Weight Management Programme. Students whose BMI-for-age is in the 90th percentile and above will attend compulsory morning runs twice a week on the days stipulated by their PE teacher. Underweight students will receive support, education and such intervention measures as deemed necessary.

Once enrolled in the College's Weight Management Programme, a student's attendance for all activities of the programme is compulsory and takes priority over all CCA activities.

A student graduates from the College's Weight Management Programme when he achieves his acceptable BMI.



NOTES

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. In the top center, there is a small blue semi-circle. At the bottom right corner, there is a small, colorful cartoon pencil character with a face, arms, and legs, standing on a yellow oval shadow.





NOTES

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. In the top left corner, there is a small blue circular mark. At the bottom right corner, there is a small, colorful cartoon pencil character with a face, arms, and legs, standing on a yellow oval shadow.



2022 Calendar

JANUARY

M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

FEBRUARY

M	T	W	T	F	S	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

MARCH

M	T	W	T	F	S	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

APRIL

M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

MAY

M	T	W	T	F	S	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

JUNE

M	T	W	T	F	S	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

JULY

M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

AUGUST

M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

SEPTEMBER

M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

OCTOBER

M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

NOVEMBER

M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

DECEMBER

M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

2022 Scheduled Public Holidays

Sat 1 Jan : New Year's Day
Tue 1 Feb and Wed 2 Feb : Chinese New Year
Fri 15 Apr : Good Friday
*Sun 1 May : Labour Day
Tue 3 May : Hari Raya Puasa
*Sun 15 May : Vesak Day
*Sun 10 Jul : Hari Raya Haji
Tue 9 Aug : National Day
Mon 24 Oct : Deepavali
*Sun 25 Dec : Christmas Day

2022 Scheduled School Holidays

*Sun 3 Jul : Youth Day
Wed 10 Aug : Day after National Day
Fri 2 Sep : Teachers' Day

2022 School Vacation

After Term 1: Sat 12 Mar to Sun 20 Mar
After Term 2: Sat 28 May to Sun 26 Jun
After Term 3: Sat 3 Sep to Sun 11 Sep
After Term 4 (JC1): Sat 26 Nov to Sat 31 Dec
After Term 4 (JC2): End of A-Level exams to 31 Dec

Remarks:

* The following Monday will be a scheduled school holiday.


■ School Vacation.




Front Cover Designed By: Mr Sim Hao Jie (SAJC Alumni, 08S01)

ST ANDREW'S JUNIOR COLLEGE
5 SORBY ADAMS DRIVE SINGAPORE 357691

Website: www.standrewsjc.moe.edu.sg

 : www.facebook.com/standrewsjc

 @sajc_official

Office Telephone Number: 62857008/62852007
Fax Number: 62850037