PROSAUC

PROSPECTUS

2024

UP AND ON

EXEMPLARY CHARACTER
INTEGRITY
RESPECT
RESILIENCE
COMPASSION
HUMILITY
SKILLED COMMUNICATOR
COMMUNITY BUILDER
HOLISTIC THINKER

UP AND ON

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
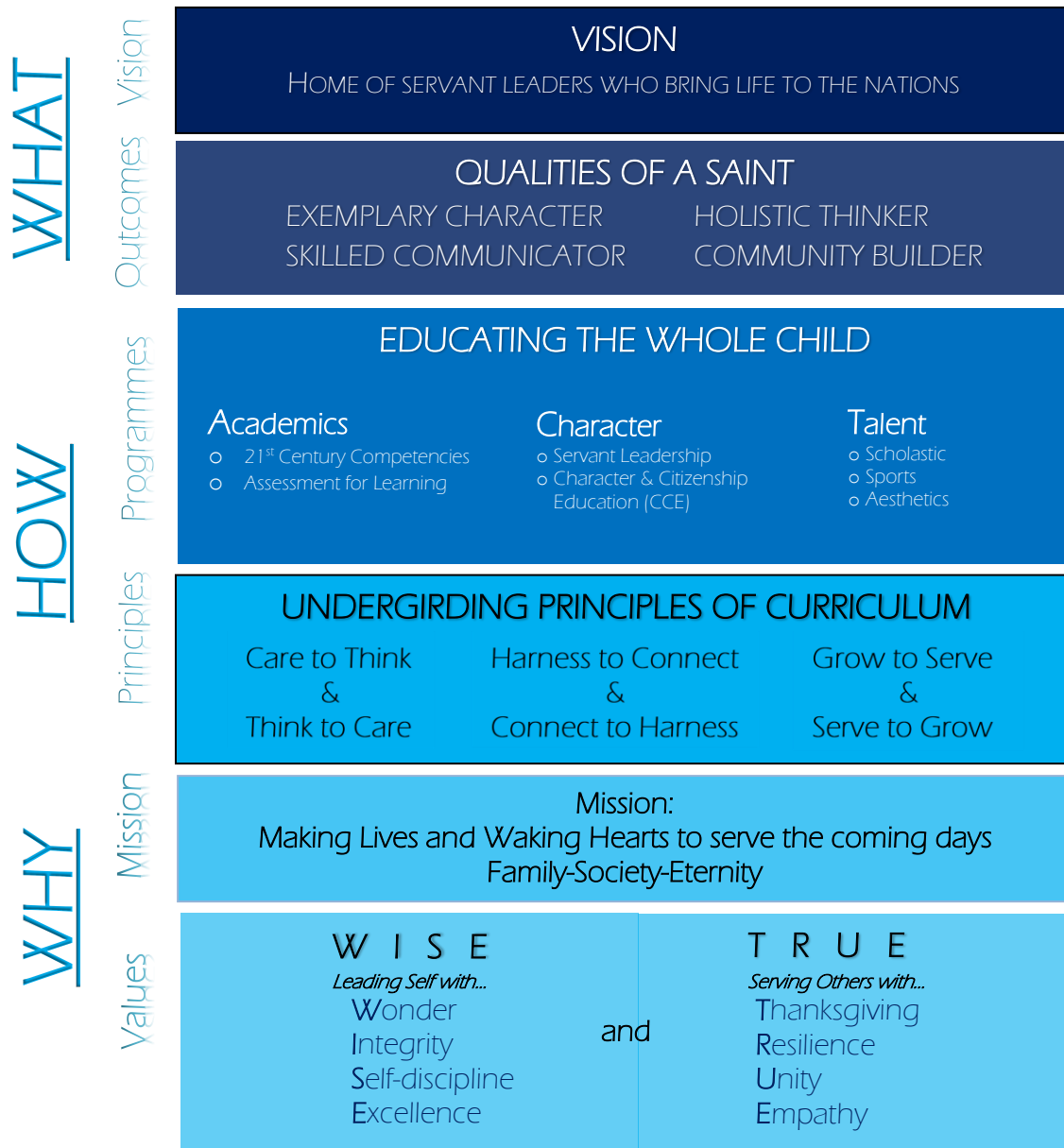SKILLED COMMUNICATOR
COMMUNITY BUILDER

MOTTO
UP AND ON

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

Values

W I S E
Leading Self with...
Wonder
Integrity
Self-discipline
Excellence

and

T R U E
Serving Others with...
Thanksgiving
Resilience
Unity
Empathy

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 competencies and skills 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 Servant Leadership Education and Development (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 Adaptive 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 must 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 solving problems, 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 desire to inspire change for the better and contribute to society.

To be an effective community builder, every Saint needs to have genuine interest in and sincere concern for people. They also acquire a deep understanding of cultural and global literacies 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 participates in service learning and community involvement programmes locally and/or overseas. Saints are also encouraged to initiate their own community projects and volunteer with our partner organisations. In addition, international exchange programmes are also organised for Saints to develop global and cultural literacy.

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 4 Qualities of a Saint in our students. The following key teaching and learning domains own and drive programmes to develop these 4 Qualities:

Qualities of the Saints	Teaching and Learning Domains	
Exemplary Character	• SLEAD Programmes • Citizenship Education Programmes • Chapel & Scripture Reading	• Co-curricular Activities and Programmes • Student Leadership • Student Well-being • Discipline
Holistic Thinker	• Co-curricular Activities and Programmes • Humanities • English Language • Information Technology • Mathematics • Mother Tongue Languages	• SLEAD Education Programmes • National Education Programmes • Project Work • Sciences • Student Leadership
Skilled Communicator	• Art • Co-curricular Activities and Programmes • Values-in-Action Programmes • English Language	• Humanities • Mother Tongue Languages • Information Technology • Project Work • Sciences • Service Learning • Student Leadership
Community Builder	• Physical Education • Co-curricular Activities and Programmes • Values-in-Action Programmes • SLEAD Programmes	• 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).

Blended Learning
In accordance with the Ministry of Education's (MOE) initiative to incorporate Blended Learning (BL) as a significant component of the educational experience for both Secondary School and JC/MI students, the aim is to foster self-directed and independent learners while nurturing passionate and intrinsically motivated individuals. SAJC has adopted BL for both JC1 and JC2 Saints, leveraging on online lectures and Home-Based Learning days as part of this approach.

1. Online lectures
Online lectures empower Saints with the flexibility to learn at their preferred times and adjust their pace, allowing them to regulate and direct their own learning. Saints are required to watch weekly online lectures during weekday afternoons, and it is recommended that they adhere to the College's provided online lecture schedule to effectively manage their learning progress.

2. *Home-Based Learning (HBL) Days*

The key feature of HBL day in SAJC is the conscious dedication of time and space i.e., 2 hr for a meaningful **Learning Experience (LE)**. This dedicated time also allows Saints to meaningfully engage in a learning experience that evoke their wonder, interest and passion in the subject area.

Furthermore, **Student-Initiated Learning (SIL)** is time set aside for Saints to explore their personal interests which also provides Saints with the opportunity to develop themselves as independent, passionate and lifelong learners.

Saints can discover the benefits of their Blended Learning (BL) experiences at SAJC by adhering to the following three norms:

(1) **Planning Ahead:** To evolve into a self-directed learner, Saints should learn how to effectively manage their time and proactively plan to maximize productivity.

(2) **Taking Ownership:** BL offers a unique opportunity for independent learning, a skill that will serve Saints throughout their lives. It is crucial to begin cultivating these habits early and reflect on one's self-management on Home Based Learning (HBL) days.

(3) **Building Trust:** BL has been intentionally designed to empower learners. Demonstrating respect for commitments and meeting deadlines for all HBL activities not only honours the trust placed in Saints by their teachers but also showcases their capacity to handle increased autonomy.

The schedule for HBL and online lectures would be provided for every Saint.

• *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 Weighted Assessments, 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 regarding assignment to special programmes and eligibility for promotion or higher education. Teachers also employ other modes of assessment when appropriate, such as project presentations, take-home assignments, and bite-size in-class tests.

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

The Talent Development Programme (TDP) serves to stretch our Saints by honing their competencies in information and communication skills, critical and inventive thinking, civic literacy, global awareness, and cross-cultural skills. This is done through the provision of opportunities to develop and grow them in the domains of Scholastic Development, Servant Leadership Development and Expanding Perspectives.

Under Scholastic Development, Saints in the TDP can expect to learn knowledge and skills beyond the GCE A-level curriculum. To deepen and broaden the content taught in classrooms, TDP students in the Arts and Science stream have the opportunity to gain experiences offered in the Humanities Scholars Programme and Science Scholars Programme respectively.

Examples of opportunities offered	
Humanities Scholars Programme	*Science Scholars Programme*
- Humanities Seminar Series - EU @ Your School - Academic Mentoring	- External science research programmes (e.g., Nanyang Research Programme, Science Research Programme, SUTD Research Mentorship Programme) - MOE Scientist in School Programme - Learning journey to research institutes

Saints in the TDP are also equipped with skills and experiences to take on challenges confidently, as they mature to be Servant Leaders with the ability to leverage multiple perspectives. With the TDP experience, our Saints are better poised to strive for prestigious scholarships in both the public and private sectors.

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

COURSE INFORMATION

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. 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.

To be exempted from MTL, students are required to obtain **at least a D7** for Higher MT subject at GCE O-Level Examination. Students who have taken ONLY Mother Tongue B Syllabus (MTB) at GCE O-Level Examination will continue with MTB at GCE A-Level.

The table below shows the **3H2 and 1H1 Subject Combinations** offered in SAJC for 2024. These combinations will only be offered if there is sufficient demand.

In choosing your subject combination, it is critical that you consider the course you would like to pursue in university.

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: **Geography, History, Literature** OR A subject from the Sciences: **Biology, Chemistry, Physics**
2A2	Economics	History	Math	
2A3	Economics	Literature	Math	
2A4	Geography	Literature	Math	
2A5	History	Literature	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 *(for 3A1, 2A1 and 2A2 only)*
- H2 Malay Language & Literature *(for 3A1, 2A1 and 2A2 only)*
- H2 Tamil Language & Literature *(for 3A1, 2A1 and 2A2 only)*

- **Science Course**

Subject Codes	H2	H2	H2	H1
3S1	Biology	Chemistry	Math	A subject from the Humanities: **Economics, Geography, History, Literature**
3S2	Physics	Chemistry	Math	
3S3	Physics	Further Math	Math	
3S4	Chemistry	Further Math	Math	
3S5	Physics	Math	Computing	
3S6	Chemistry	Math	Computing	
2S1	Biology	Economics	Math	A different subject from the Humanities: **Economics, Geography, History, Literature** OR A different subject from Math or the Sciences: **Math, Biology, Chemistry, Physics**
2S2	Chemistry	Economics	Math	
2S3	Physics	Economics	Math	
2S4	Biology	Geography	Math	
2S5	Chemistry	Geography	Math	
2S6	Physics	Geography	Math	
2S7	Biology	Chemistry	Economics	
2S8	Physics	Chemistry	Economics	

Note:
- At most ONE of the following subjects may be used to replace one H2 subject in the above combinations *(with exception of 3S3 and 3S4)* provided students fulfil the contrasting subject requirement:
  - H2 Art
  - H2 Chinese Language & Literature
  - H2 Malay Language & Literature
  - H2 Tamil Language & Literature

- H1 Math is recommended for 2S7 and 2S8.

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4 H2 Subject Combinations

Students may offer 4 H2 subjects if they have attained a L1R5 (without bonus points) of **9 or better.** Students who have attained a L1R5 (without bonus points) of 10 or 11 and who have obtained A1 for the relevant subjects could submit an appeal application for the college's consideration.

The following tables show the **4 H2 subject combinations** offered in SAJC for 2024. 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
4S3	Physics	Math	Computing	Economics
4S4	Physics	Math	Further Math	Economics
4S5	Chemistry	Math	Computing	Economics
4S6	Chemistry	Math	Further Math	Economics

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.

2023 Indicative Grade Profiles

Based on the number of places that were available for the various subject combinations offered in 2023, 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 2023 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 AUTONOMOUS UNIVERSITIES (AU)

With effect from AY2026, NTU, NUS, SMU, SUTD, SUSS and SIT will select applicants based on their University Admission Scores (UAS) for

- **Three H2** content-based subjects and General Paper **(GP)**

Scores for H1 and MTL are included only if it improves the UAS.

In addition,

- Applicants should also meet the Mother Tongue Language **(MTL)** requirement* for admission
- A **Pass** in Project Work (**PW**) is required for admission to the AU.

Other acceptable subject combinations include: four H2 content-based subjects, Project Work and GP. If student is offering four H2 subjects, the best three grades for H2 are used for AU admission.

Please note that in addition to UAS scores, you also need to ensure you fulfil the course or subject prerequisites of the degree programmes that you wish to apply to in the future.

Besides 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**).

For more information on the admission requirements please refer to the university websites.

*MTL Requirement:

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

INDICATIVE GRADE PROFILES FOR AY2023/2024 ADMISSIONS EXERCISE

The following information is strictly for reference only.

Please note that prior to AY2026, admission of graduates to the University is based on an applicant's overall A-level academic performance and the IGP comprise the grades of six A-level subjects as follows:

- Best three H2 and one H1 content-based subjects, with at least 1 content subject from a contrasting discipline
- General Paper (GP) and
- Project Work (PW)

The IGP in the tables below assume grade C for GP and PW and indicate that of the 10th percentile of the cohort. Please note that certain programmes may require grades higher than "C" for GP for the purpose of admission.

Meeting the previous year's grade/GPA scores of a degree programme does not guarantee admission to that programme in the subsequent year.

With effect from AY2026, the admission requirements will be updated to reflect the changes to the A-level Curriculum and UAS computation (refer to the previous page). Please refer to the universities' websites regularly for the most up-to-date information.

NANYANG TECHNOLOGICAL UNIVERSITY (NTU):

Grade Profiles of the 10th percentiles of A-level applicant offered places for programmes at NTU in 2022:

NTU Degree Programme Representative	Representative Grade Profile: 3H2/1H1 10th percentile
Lee Kong China School of Medicine	
Medicine*	AAA/A
College of Engineering	
Renaissance Engineering*	AAA/A
Aerospace Engineering*	AAC/B
Bioengineering	BBC/C
Chemical & Biomolecular Engineering	BBC/C
Civil Engineering	CCD/D
Computer Engineering	AAC/C
Computer Science	AAA/C
Date Science and Artificial Intelligence	AAA/B
Electrical & Electronic Engineering	CCD/C
Engineering	CCC/C
Environmental Engineering	BCC/D
Information Engineering & Media	BCC/B
Maritime Studies	BCC/D
Materials Engineering	BCC/C
Mechanical Engineering	CCD/D
College of Science	
Double Major Programmes*	AAB/B
Biological Sciences*	AAB/C
Chemistry & Biological Chemistry	BBC/C
Environmental Earth Systems Science*	AAA/C
Mathematical Sciences	BCC/B
Physics/Applied Physics	CCD/C

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Nanyang Business School	
Accountancy*	BBC/B
Business*	BBC/B
College of Humanities, Arts & Social Sciences	
SOH Double Major Programmes*	AAB/B
SSS Double Major Programme	AAA/B
Art, Design and Media*^	BCC/C
Chinese*	BCC/B
Communication Studies*	AAB/B
Economics	BBC/C
Economics and Data Science	AAB/B
English*	BBC/C
History*	BCC/C
Linguistics & Multilingual Studies*	ABC/C
Philosophy*	BBC/C
Psychology	AAC/B
Public Policy & Global Affairs	AAC/B
Sociology	BBC/C
National Institute of Education	
Arts (Education)*	BCC/C
Science (Education)*	AAC/B
Sport Science & Management	BCC/D

^ Admission to Art, Design & Media programme is based on Composite Score which comprises Entrance Requirement Score and University Admission Score.
* The programmes marked with asterisk (*) are those where additional assessments such as interviews, selection tests, and/or portfolios are required.

NATIONAL UNIVERSITY OF SINGAPORE (NUS):

Grade Profiles of the 10th percentiles of A-level applicant offered places for programmes at NUS in 2022:

NUS Degree Programme	Representative Grade Profile: 3H2/1H1 10th percentile
Faculty of Law	
Law*	AAA/A
School of Medicine	
Medicine*	AAA/A
Nursing*	CCD/B
Faculty of Dentistry	
Dentistry*	AAA/A
College of Design & Engineering	
Architecture*	BBC/C
Engineering	BCC/B
Industrial Design*	BBC/C
Landscape Architecture*	BCC/B
School of Computing	
Business Analytics	AAA/A
Computer Science	AAA/A
Information Security	AAA/B
Information Systems	AAA/B

College of Design & Engineering and School of Computing	
Computer Engineering	AAB/B
College of Humanities & Sciences	
Data Science and Economics	AAA/B
Environmental Studies	AAB/C
Food Science and Technology	AAA/A
Humanities and Sciences	ABB/C
Pharmaceutical Science	AAA/A
Pharmacy^	AAA/A
Data Science and Economics*	AAA/A
NUS Business School	
Business Administration	AAB/C
Business Administration (Accountancy)	AAB/B
Real Estate	BBC/B

Double degrees are excluded from the table

* Degree programmes that require interview &/or test
^ Pharmacy programme does not follow CHS curriculum

SINGAPORE MANAGEMENT UNIVERSITY (SMU):

Grade Profiles of the 10th percentiles of A-level applicant offered places for programmes at SMU in 2022:

SMU Degree Programme	Indicative Grade Profile 3H2/1H1 content-based subjects
	10th Percentile
Bachelor of Accountancy	BBC/C
Bachelor of Business Management	BBB/B
Bachelor of Laws	AAA/A
Bachelor of Science (Economics)	BBC/B
Bachelor of Science (Information Systems)	BBB/C
Bachelor of Science (Computer Science)	AAB/A
Bachelor of Science (Computing & Law)	ABB/A
Bachelor of Science (Software Engineering) WSDeg	BBB/C
Bachelor of Social Sciences	BBB/C

Sources:
https://www.nus.edu.sg/oam/undergraduate-programmes/indicative-grade-profile-(igp)
https://www.ntu.edu.sg/admissions/undergraduate/indicative-grade-profile
https://admissions.smu.edu.sg/admissions-requirements/indicative-grade-profile

SINGAPORE UNIVERSITY OF TECHNOLOGY AND DESIGN (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 student who were offered in the university admission exercise in 2022:
• 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.

For more information, please click the link: **Singapore University of Technology and Design | Apply Now**

SINGAPORE UNIVERSITY OF SOCIAL SCIENCES (SUSS)

APPLICATION CRITERIA

The SUSS holistic admission comprises both the applicant's performance for the following assessment components (i.e. 4-stage assessment), AND the applicant's grades scored for Singapore-Cambridge A-level as computed as University Admission Score [UAS]:

• Essay writing – responses to an essay in relation to the research topic and video(s) [which applicant would have to prepare in advance prior to interview day];

• Cognitive exercise – analytical and logical thinking test;

• Group discussion – verbal discussion on the research topic and video(s) which revolve around societal issues in Singapore and/or the region; and

• An individual or cluster interview – interview by faculty member(s) to understand the applicant's intent to read the programme, his/her passion for the discipline, as well as to assess whether applicant's disposition and personal attributes would fit the programme.

Applicants are encouraged to share their portfolio, co-curricular activities, community service, volunteering work, leadership qualities, entrepreneurship skills, internship stints, work experience, and other personal non-academic achievements, etc. with the faculty member(s).

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 following link:

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

Please note the information is to be used as a reference only**.**

SINGAPORE INSTITUTE OF TECHNOLOGY (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. If shortlisted, candidates will be called in for an interview.

For more information on SIT's Indicative Grade Profile please refer to the link below: **SIT Indicative Grade Profile 2022**

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 ensure you fulfil the course prerequisites of the degree programmes that you wish to apply to in the future. Please refer to the soft copy of the prospectus on the school website to access the hyperlinks.

*Please refer to the Universities' website for the most up-to-date information.

REQUIREMENTS FOR COURSES IN NTU

Programme	Minimum Subject Requirements	Selection Test/ Interview
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+ *Pass in H1 Level / 'O' Level Physics is only applicable to applicants who have not read H2 Level Physics.*	Yes
Bachelor of Engineering Programmes		
Aerospace Engineering Aerospace Engineering with a second major in Business Entrepreneurship	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 Entrepreneurship	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing	

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Bioengineering with a Second Major in Food Science and Technology 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
Chemical and Biomolecular Engineering	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing
Chemical and Biomolecular Engineering with a Second Major in Business Entrepreneurship	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing
Chemical and Biomolecular Engineering with a Second Major in Food Science and Technology	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	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 with a Second Major in Business Entrepreneurship 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+
Computer Engineering	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 with a Second Major in	H2 Level pass in Mathematics, and

Business Entrepreneurship	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
Computer Science with a Second Major in Business Entrepreneurship	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing
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 Business Entrepreneurship 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+
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 Entrepreneurship 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	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 with a Second Major in Business Entrepreneurship	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing, and H1 Level/ 'O' Level pass in Physics/equivalent+	21
Maritime Studies	Pass in H1 Level Mathematics/'O' level Additional Mathematics or equivalent, **and** Pass in H1 Level/'O' level Science subject	
Maritime Studies with a Second Major in Business	Pass in H1 Level Mathematics/'O' level Additional Mathematics or equivalent, and Pass in H1 Level/'O' level Science subject	
Mechanical Engineering		
Materials Engineering with a Second Major in Business Entrepreneurship Pharmaceutical Engineering Medical Biology	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology, and H1 Level/ 'O' Level pass in Physics/equivalent+	
Materials Engineering	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing, and H1 Level/ 'O' Level pass in Physics/equivalent+	
Mechanical Engineering with a Second Major in Business Entrepreneurship Pharmaceutical Engineering Medial Biology	H2 Level pass in Mathematics, and H2 Level pass in Physics/Chemistry/Biology/Computing, and H1 Level/ 'O' Level pass in Physics/equivalent+	

COLLEGE OF HUMANITIES, ARTS, & SOCIAL SCIENCES

Art, Design and Media	'O' Level/equivalent pass in Mathematics, and A good grade in General Paper/Knowledge & Inquiry	

	In addition, applicants are required to produce and submit the following materials for admissions assessment: 1. A portfolio 2. Personal statement and writing samples 3. A creative project 4. Three visuals For specific submission instructions and details, please refer to ADM Admissions Requirements.	
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
Chinese and English (Double Major) Chinese and Linguistics & Multilingual Studies (Double Major)	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	
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	
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	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** a good 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	
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	
English	A good grade in General Paper/Knowledge & Inquiry/H1 **or** H2 Level Humanities Subject	Yes
English Literature and Art History (Double Major)	A good grade in General Paper/Knowledge & Inquiry/H1 **or** H2 Level Humanities Subject	

English and History (Double Major) English and Philosophy (Double Major)		
History	A good grade in General Paper/Knowledge & Inquiry/H1 or H2 Level Humanities Subject	
History and Chinese (Double Major)	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	
History and Linguistics & Multilingual Studies (Double Major)	A good grade in General Paper/Knowledge & Inquiry/H1 **or** H2 Level Humanities subject	
Linguistics and Multilingual Studies	A good grade in General Paper/Knowledge & Inquiry/ H2 Level Humanities subject	
Linguistics and Multilingual Studies and English (Double Major) Linguistics and Multilingual Studies and Philosophy (Double Major)	A good grade in General Paper/Knowledge & Inquiry/H1 **or** H2 Level Humanities subject	
Philosophy	A good grade in General Paper/Knowledge & Inquiry/H1 **or** H2 Level Humanities subject	
Philosophy and Chinese (Double Major)	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	
Philosophy and History (Double Major)	A good grade in General Paper/Knowledge & Inquiry/ H1 **or** H2 Level Humanities subject	
Psychology	A good grade in H1 Level Mathematics, and A good grade in General Paper/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 in General Paper/Knowledge & Inquiry, and H1 Level pass in Physics/Chemistry/Biology	

Psychology and Linguistics & 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 A good grade in General Paper/Knowledge & Inquiry At least a B grade in General Paper/Knowledge & Inquiry	On a selective basis
Public Policy and Global Affairs	A good grade in General Paper/Knowledge & Inquiry **and** H1 Level History/English Literature/Geography	
Sociology	A good grade in General Paper/Knowledge and Inquiry	

College of Science		
Biological Sciences	At least H1 or equivalent pass in Mathematics and a good pass in H2 Physics, Chemistry or Biology	On a selective basis
Biological Sciences with a Second Major in Biomedical Structural Biology	H1 pass Mathematics **and** a H2 Level pass in Physics, Chemistry or Biology	
Biological Sciences with a Second Major in Food Science and Technology	At least H2 pass in Mathematics **and** a H2 Level pass in Physics, Chemistry or Biology **OR** H1 equivalent pass in Mathematics **and** two H2 Level pass in Physics, Chemistry or Biology	On a selective basis
Biological Sciences with a Second Major in Medicinal Chemistry and Pharmacology	H1 pass Mathematics **and** a H2 Level pass in Chemistry	
Biomedical Sciences and BioBusiness (Double Major)	H1 pass in Mathematics **and** H2 pass in Chemistry	Yes
Biomedical Sciences and Chinese Medicine	At least H1 or equivalent pass in Mathematics and a good H2 pass in Physics, Chemistry or	Yes

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(Double Degree)	Biology **and** at least an O level or equivalent pass in Chinese Language	
Biological Sciences and Psychology (Double Major)	Good H1 or equivalent pass in Mathematics, good H2 Level pass in Physics, Chemistry or Biology, and a good grade in General Paper or Knowledge & Inquiry	Yes
Chemistry and Biological Chemistry		
Chemistry and Biological Chemistry with Second Major in Business (International Trading) Environmental Science Food Science and Technology	Good H2 pass in Chemistry **and** H2 level pass in Mathematics or Physics	
Environmental Earth Systems Science	H1 Level pass in Mathematics and H2 Level pass in either Physics, Chemistry, Biology, Economics or 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 or Economics **and** a good grade in General Paper/Knowledge and Inquiry/H1 Level History/English Literature/Geography	
Mathematical Sciences		
Mathematical Sciences with Minor in Finance	Good H2 pass in Mathematics	
Mathematical Sciences and Economics (Double Major)	H2 pass in Mathematics and good grade in General Paper or Knowledge & Inquiry	On a selective basis
Mathematical and Computer Sciences (Double Major)	H2 pass in Mathematics **and** H2 pass in either Physics, Chemistry, Biology or Computing	
Physics/Applied Physics Applied Physics with Second Major in Microelectronics Engineering Physics and Mathematical Sciences (Double Major)	H2 pass in Physics and Mathematics	
LEE KONG CHIAN SCHOOL OF MEDICINE		
Medicine	Pass in H2 Level Chemistry **and** Pass in either H2 Level Biology or Physics In addition, candidates are required to submit the following materials for admission assessment:	Yes

	• 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.) Applicants are also recommended to provide details of exceptional talents and/or outstanding achievements beyond school co-curricular activities for admissions assessments. University Clinical Aptitude Test (UCAT**)** Applicants will have to register for the University Clinical Aptitude Test (UCAT) and take the UCAT as part of the criteria for entry to the Lee Kong Chian School of Medicine (LKCMedicine) programme. **For further details, please visit https://www.ntu.edu.sg/medicine**	
NANYANG BUSINESS SCHOOL		
Accountancy Accountancy with a Second Major in Entrepreneurship	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)	H2 Level pass in Mathematics, **and** H2 Level pass in Physics/Chemistry/Biology/Computing	
Accountancy and Business (Double Degree) Accountancy and Business with a Second Major in Entrepreneurship (Double Degree)	H1 Level pass in Mathematics, **or** 'O' Level/equivalent pass in Additional Mathematics	
Business Business with a Second Major in Entrepreneurship	H1 Level pass in Mathematics, **or** 'O' Level/equivalent pass in Additional Mathematics	
NATIONAL INSTITUTE OF EDUCATION		
Arts (Education)	Pass in General Paper/Knowledge & Inquiry, and	Yes

Science (Education)	Pass in Mathematics at H1 Level/ 'O' Level	
Bachelor of Science in 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
+ Pass in H1 Level / 'O' Level Physics is only applicable to applicants who have not read H2 Level Physics.
@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.

More details can be found at the following website: -
https://www.ntu.edu.sg/admissions/undergraduate
https://www.ntu.edu.sg/admissions/undergraduate/indicative-grade-profile

REQUIREMENTS FOR COURSES IN NUS

Admission is based on academic merit as well as open competition among all eligible applicants. In addition to fulfilling admission requirements for the applicant category that you belong to; you should also ensure that you fulfil the subject prerequisites for the programmes which you wish to be considered for.

Please note that the subject prerequisites presented below are subject to changes every year. You are strongly encouraged to visit NUS website regularly for further updates.

Information accurate as of 31 January 2023

Single Degree Programme	Minimum Subject Requirements	Selection Test/Interview
Architecture	H1 pass in Chemistry or Mathematics or Physics; OR pass in 'O' level Additional Mathematics.	Yes
Accountancy (BBA ACC)	H1 pass in Mathematics **or** O" Level Additional Mathematics	No
Business Administration (BBA)	H1 pass in Mathematics **or** "O" Level Additional Mathematics	No
Business Analytics	H2 pass in Mathematics or Further Mathematics.	No
Computer Engineering	H2 pass in Mathematics or Further Mathematics and either Physics, Computing or Chemistry. 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 module.	No

Computer Science	H2 pass in Computing or Mathematics or Further Mathematics or Physics; OR a good pass in H1 Mathematics	No
Data Science and Economics	Very good pass in H2 Mathematics	No
Dentistry	Good H2 pass in Chemistry and a good H2 pass in either Biology or Physics. *Please note to be considered for Dentistry or Medicine, you must rank these courses as first or second choice. If Dentistry or Medicine is ranked as second choice, first choice needs to be an interview course.*	Yes
Engineering (Common admission) • *Biomedical Engineering* • *Chemical Engineering* • *Civil Engineering* • *Electrical Engineering* • *Engineering Science* • *Environmental Engineering* • *Industrial & Systems Engineering* • *Infrastructure & Project Management* • *Materials Science & Engineering* • *Mechanical Engineering*	H2 pass in Mathematics or Further Mathematic Please refer to https://cde.nus.edu.sg/ for details.	No
Environmental Studies	Please refer to https://chs.nus.edu.sg/programmes/bes/ for details. Students who do not have a pass in H2 Biology (or equivalent) are to read the bridging course in Biology, LSM1301, upon successful admission to the programme.	No
Food Science and Technology	Any two H2 passes in Chemistry, Biology, Physics, Computing, Mathematics or Further Mathematics	No
Humanities and Science - *Bachelor of Arts* - *Bachelor of Social Science* - *Bachelor of Science*	Please refer to the list of programmes below and https://chs.nus.edu.sg/programmes/#progmajors for details.	No

Bachelor of Arts		
Chinese Language/Chinese Studies	At least B4 for Higher Chinese at GCE 'O' Level, Chinese Language at 'AO' level OR A pass for Chinese at GCE 'A' Level, Higher Chinese at GCE 'A' Level OR At least C grade for Chinese (H1CL) at GCE 'A' Level OR A pass for Chinese Language and Literature (H2CLL) at GCE 'A' Level, Chinese Language and Literature (H3CLL) at GCE 'A' Level	
English Language/English Literature/Theatre and Performance Studies	Be exempted from the NUS Qualifying English Test, or have passed the NUS Qualifying English Test, or be exempted from further CELC remedial English modules	
Malay Studies	A pass in Higher Malay Language at GCE 'O' Level OR A H1 pass in Malay Language OR A H2/H3 in Malay Language and Literature OR A pass in LAM1201 Malay 1 (offered by Centre for Language Studies at FASS) for students without prior knowledge in Malay	
Global Studies History Japanese Studies Philosophy South Asian Studies Southeast Asian Studies	Nil. Open to all registered students of the College.	
Philosophy, Politics, and Economics Cross-Disciplinary Programme (PPE-XDP)	Requires a separate application. Please click PPE-XDP or scan the QR code below for details on the application procedure.	Yes
Bachelor of Social Science		
Anthropology Communication and New Media Economics Geography	Nil. Open to all registered students of the College	

Political Science Psychology Social Work Sociology		30
Bachelor of Science		
• Chemistry • Chemistry Specialisation in Chemical Research	Good H2 pass (or equivalent) in Chemistry Students without these prerequisites are required to read the bridging module in Chemistry (CM1417 or CM1417X)	
• Data Science and Analytics • Data Science and Analytics • Specialisation in Operations Research • Specialisation in Statistical Methodology	Very good H2 pass (or equivalent) in Mathematics/Further Mathematics Students without these prerequisites are required to read the bridging module in Mathematics (MA1301 or MA1301X)	
• Life Sciences • Life Sciences • Specialisation in Biomedical Science • Specialisation in Ecology, Evolution and Biodiversity • Specialisation in Molecular and Cell Biology	Good H2 passes (or equivalent) in Biology and Chemistry Students without these prerequisites are required to read the bridging modules in Biology/Chemistry.	
• Mathematics • Mathematics • Specialisation in Data Modelling and Analytics • Specialisation in Operations Research and Analytics • Specialisation in Pure Mathematics	Good H2 pass (or equivalent) in Mathematics/Further Mathematics Students without these prerequisites are required to read the bridging module in Mathematics (MA1301 or MA1301X)	

Programme	Prerequisites	Bridging
Pharmaceutical Science*	Very good H2 pass in Chemistry and a very good H2 pass) in Biology or Physics or Mathematics/Further Mathematics. *These programmes are offered on direct admission. Applicants have to meet the prerequisites before they can be considered for admission to these programmes.*	No
• Physics • Physics • Specialisation in Astrophysics • Specialisation in Nanophysics • Specialisation in Quantum Technologies	Good H2 pass (or equivalent) in Mathematics/Further Mathematics Students without these prerequisites are required to read the bridging module in Mathematics (MA1301 or MA1301X)	
Quantitative Finance	Good H2 pass (or equivalent) in Mathematics/Further Mathematics Students without these prerequisites are required to read the bridging module in Mathematics (MA1301 or MA1301X)	
• Statistics • Statistics • Specialisation in Data Science • Specialisation in Finance and Business Statistics	Good H2 pass (or equivalent) in Mathematics/Further Mathematics *Students without these prerequisites are required to read the bridging module in Mathematics*	
Industrial Design	H1 pass in Mathematics, Physics, Economics or Art; OR Pass in 'O' Level Additional Mathematics	Yes
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, 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)	Yes

	Students applying for Medicine need to submit a [portfolio](#) to NUS Medicine Admissions Portal after completing their undergraduate admissions application *To be considered for Law, you must rank this course as first, second or third choice. If Law is ranked as second choice or third choice, the course choice(s) ranked above need to be an interview course.*	
Medicine	H2 pass in Chemistry and either Biology or Physics. *Students applying for Medicine need to submit a portfolio to NUS Medicine Admissions Portal after completing their undergraduate admissions application* *Please note to be considered for Dentistry or Medicine, you must rank these courses as first or second choice. If Dentistry or Medicine is ranked as second choice, first choice needs to be an interview programme.*	Yes
Music	Application for the Music programme must be filed directly to the Conservatory. Please refer to https://www.ystmusic.nus.edu.sg/ for more information.	Yes
Nursing	H2 pass in any two of the following: Biology, Chemistry, Computing, Physics and Mathematics	Yes
Pharmacy	Very good pass in H2 Chemistry and very good pass in H2 Biology, Physics, Mathematics or Further Mathematics 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'.	No
Real Estate	H1 Pass in Chemistry **or** Mathematics **or** Physics	No
For more information on **Double & Concurrent Degree Programmes / Specialisations / Double Major Programmes / Minor Programmes** please click in the following link: [Programme Pre-requisites](#)		

More details can be found at NUS website: -
https://www.nus.edu.sg/oam/apply-to-nus/singapore-cambridge-gce-a-level/subject-pre-requisites

REQUIREMENTS FOR COURSES IN SMU

SMU comprises of six schools, each offering undergraduates programmes:
- School of Accountancy
- Lee Kong Chian School of Business,
- School of Computing and Information Systems
- School of Economics
- School of Social Sciences
- Yong Pung How School of Law
- College of Integrative Studies
- SMU-Duke-NUS MD Programme.

The programmes the six schools offer include:

- Bachelor of Integrative Studies
- Bachelor of Accountancy
- Bachelor of Business Management
- Bachelor of Laws
- Bachelor of Science (Computer Science)
- Bachelor of Science (Computing & Law)
- Bachelor of Science (Economics)
- Bachelor of Science (Information Systems)
- Bachelor of Science (Software Engineering) WSDeg
- Bachelor of Social Science
- SMU-Duke-NUS Medicine Pathway

SMU offers more than 300 double major combinations and over 20 double degree programmes. To find out more about a major you are interested in click here.

For more information on the programmes offered in SMU, please click here.

Programmes	Admission and Requirements
All Courses	From 2026, the admission requirements to the autonomous universities would be updated to reflect the changes to the A-level curriculum and University Admission Score. Please refer to page 14. For the latest information, please refer to the university website regularly.
Law/Computing & Law	Law/Computing & Law applicants must meet at least one of the following requirements: • GP grade of A or B Applicants who fall short of the above minimum requirements may be considered on a case-by-case basis. Shortlisted Law applicants must also take a writing test
Economics	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.

Computer Science	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.

More details can be found at the following websites:-
https://admissions.smu.edu.sg/programmes
https://admissions.smu.edu.sg/admissions-requirements/singapore-cambridge-gce-levels#admissionsrequirements

REQUIREMENTS FOR COURSES IN SUTD

SUTD currently offers five undergraduate programmes. Their undergraduate programmes are developed to offer a modern engineering and architectural education that crosses traditional disciplines. They prepare students for roles that involve design, technical leadership and creative thinking:

Architecture and Sustainable Design (ASD)
Bachelor of Science (Architecture and Sustainable Design)
ASD prepares students for the future needs of architecture in a digital era – ecological urban architecture, leveraging on big data to design smart cities, advanced design computation, digital fabrication and more.

Computer Science and Design (CSD)
Bachelor of Engineering (Computer Science and Design
CSD prepares students for the design of software as well as integrated software/hardware systems that interact with human and machines

Design and Artificial Intelligence (DAI)
Bachelor of Science (Design and Artificial Intelligence)
DAI prepares students for an artificial intelligence-driven economy, where they can boost productivity and create economic value through sustainable applications.

Engineering Product Development (EPD)
Bachelor of Engineering (Engineering Product Development)
EPD prepares students for leadership in the conception, design, implementation and operation of innovative technology-intensive products.

Engineering Systems and Design (ESD)
Bachelor of Engineering (Engineering Systems and Design)
ESD prepares students for the design, analysis, optimisation and management of large-scale complex systems

For more information on Minors and Specialisation offered under each programme, please click here

Programmes	Admission Requirements
All Courses	From AY2026, the following subjects will be taken into consideration for UAS computation: • 3 H2 content-based subjects • General Paper (GP)

	H1 Mother Tongue Language and/or the fourth H1/H2 content-based subject may be considered if it improves the UAS.
	From AY2026, students will be required to obtain a pass grade in Project Work to be eligible for admission.
	For the latest information, please refer to the university website regularly.
	• The University accepts applications from both Science and Arts stream students.
	• While it is recommended that you have taken Mathematics and a Science subject, i.e. Physics or Chemistry, at H2, the university considers 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 the start of term.
	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.
	The MTL requirement may be fulfilled through the following:
	1. a D7 grade for Higher MTL at Singapore-Cambridge GCE O-Level (the iGCSE MTL First Language examination does not fulfil the requirement); or
	2. 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
	3. 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).
	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.
	Shortlisted candidates will be notified to attend an in-person or online interview.
	Of the A Level student who were offered in the university admission exercise in 2022:
	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.
Notes on SAT	• 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: -

Note that: With SUTD's unique cohort-based and active learning approach, they look for students who work well in teams, who are not afraid to question the norm and be different, who are intellectually curious, who persevere in the face of difficulties, and who are comfortable being hands-on.

Through candidate's participation in co-curricular activities, accomplishments and portfolios, teacher's recommendations, and responses to SUTD's personal insight questions, the university hopes to gain a better understanding of you as an individual, and if you have the attributes to flourish in SUTD.

The interview (for shortlisted candidates) with the senior faculty/staff will also provide the University with additional information to assess if you are a good fit.

As admission to the University is competitive, do note that satisfying the minimum requirements is often not enough to be competitive for selection. The selection will be based on merit and a comprehensive review as outlined above.

REQUIREMENTS FOR COURSES IN SUSS

Singapore University of Social Services (SUSS) is university with a rich heritage in inspiring lifelong education and transforming society through applied social sciences. The university offers more than 80 undergraduate programmes offered through its five schools:

School of Humanities and Behavioural Sciences
School of Business
SR Nathan School of Human Development
School of Law, and
School of Science and Technology
The full-time undergraduate programmes offered include:

Bachelor of Accountancy
Bachelor of Early Childhood Education with Minor
Bachelor of Human Resource Management with Minor
Bachelor of Public Safety and Security with Minor
Bachelor of Science in Business Analytics with Minor
Bachelor of Science in Finance with Minor
Bachelor of Science in Information and Communication Technology with Minor
Bachelor of Science in Marketing with Minor
Bachelor of Science in Supply Chain Management with Minor
Bachelor of Social Work with Minor
Bachelor of Laws

Programmes	Minimum Subject Requirements
Full Time Undergraduate Programme	From AY2026, the following subjects will be taken into consideration for UAS computation: • 3 H2 content-based subjects • General Paper (GP) H1 Mother Tongue Language and/or the fourth H1/H2 content-based subject may be considered if it improves the UAS.

	From AY2026, students will be required to obtain a pass grade in Project Work to be eligible for admission.

For the latest information, please refer to the university website regularly.
- Shortlisted applicants may be required to undergo one or more interviews and/or take written admission or other evaluation/selection 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).

Singapore Citizens and Permanent Residents with GCE A Level need to meet one of the following MTL requirements if you have the following education background:

- 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** | The Law programme is open to Singaporeans and Permanent Residents only.
- 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

Additionally, applicants must also meet the English Language proficiency requirement and the following mother tongue (MTL) requirement:
- 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

Additionally, applicants must also meet the English Language proficiency requirement and the following Applicants who have not satisfied the MTL requirement above may be admitted on a provisional basis and will be required to attain the MTL within the period of their university study before being permitted to graduate from SUSS. |

	• 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. For more information, please refer to: https://www.suss.edu.sg/law-programmes/admissions/eligibility

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

SINGAPORE INSTITUTE OF TECHNOLOGY (SIT)

Programmes	Admission Requirements
All Courses	**From AY2026, the following subjects will be taken into consideration for UAS computation:** • **3 H2 content-based subjects** • **General Paper (GP)** **H1 Mother Tongue Language and/or the fourth H1/H2 content-based subject may be considered if it improves the UAS.** **From AY2026, students will be required to obtain a pass grade in Project Work to be eligible for admission.** In addition, applicants must meet one of the following Mother Tongue Language (MTL) requirements: • 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 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. Please click link for Admission Requirement Guide 2023: https://www.singaporetech.edu.sg/sites/default/files/2023-01/SIT-ARG_0.pdf **Some programmes have programme-specific requirements for application.** Find out about the additional requirements: https://www.singaporetech.edu.sg/admissions/undergraduate/admissions-requirements/programme-specific-requirements

Applicants presenting A Level qualification may consider the undergraduate degree programmes offered by the following providers:

DigiPen Institute of Technology Singapore
Singapore Institute of Technology

Singapore Institute of Technology and DigiPen Institute of Technology Singapore
Singapore Institute of Technology and University of Glasgow
Singapore Institute of Technology and Massey University
Singapore Institute of Technology and Newcastle University
Singapore Institute of Technology and Technical University of Munich
The Culinary Institute of America

Please click on the programmes below to find out more.

- Aerospace and Aviation
- Allied Health
- Building and Infrastructure Engineering
- Business and Management
- Chemical Engineering
- Design and Media
- Digital Supply Chain
- Electrical and Electronics Engineering
- Food Technology
- Information and Digital Technology
- Mechanical Engineering
- Nursing
- Pharmaceutical Engineering
- Systems Engineering
- Transport Engineering

To explore the wide range of undergraduate programmes, please click here.
For more information on SIT please refer to https://www.singaporetech.edu.sg/

H1 General Paper
Subject Code: 8881

Course Objectives

1   To understand better the world and themselves by fostering a critical awareness of continuity and change in the human experience;
2   To broaden their global outlook and deepen their understanding of local issues as well as how issues of regional and global importance relate to Singapore;
3   To appreciate the interrelationship of ideas across time, space and disciplines;
4   To develop critical and inventive thinking skills;
5   To develop critical reading skills and engage in independent research; and
6   To develop the skills of communicating clearly, accurately and effectively using the English language.

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%

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

H1 Project Work
Subject Code: 8882

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. Three learning outcomes are separately articulated: critical and inventive thinking, communication and collaboration. While students learn to work in groups, they will also learn 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:

- *Critical & Inventive Thinking*
  Students will be able to demonstrate critical and inventive thinking skills in gathering, analysing and evaluating information, and generating ideas that address real-world needs;

- *Communication*
  Students will be able to communicate clearly, coherently and persuasively in collaborative discussion and in presenting ideas to a specific audience in both the written and oral forms; and

- *Collaboration*
  Students be able to will apply collaborative skills in managing the project effectively to achieve the group's goals.

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, 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:

- ***Critical & Inventive Thinking***
  Candidates are expected to demonstrate the ability to gather, analyse and evaluate information and generate ideas. They are expected to apply these skills as they carry out a project task.

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

- ***Collaboration***
  Candidates are expected to apply collaborative skills in managing the project effectively to achieve the group's goals and participate collaboratively in contributing to a group response.

Scheme of Assessment
Candidates are required to complete the following 2 compulsory papers:

1. Written Component
Paper 1a: Project Summary
- Produce a group **Project Summary** of about 1200 words on the project.

Paper 1b: Insights & Reflections
- Produce an individual **Insights & Reflections** of 400 words based on the project.

2. Oral Component
Paper 2: Oral Presentation
- Give an **Oral Presentation** on the project and contribute to a group response to questions 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 an 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 skill 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 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.

Course Requirements

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

Syllabus Outline

It covers *Functions and Graphs*, *Calculus* and *Probability and Statistics*. A major focus of the syllabus will be the understanding and application of basic concepts and techniques of statistics. This will equip students with the skills to analyse and interpret data and make informed decisions.

	Topics	Sub-topics
1	**Functions and Graphs**	1.1 Exponential & Logarithm Functions & Graphing Techniques; 1.2 Equations & Inequalities
2	**Calculus**	2.1 Differentiation 2.2 Integration
3	**Probability & Statistics**	3.1 Probability 3.2 Binomial Distribution 3.3 Normal Distribution 3.4 Sampling 3.5 Hypothesis Testing 3.6 Correlation coefficient & Linear regression

Assessment Objectives (AO)

The assessment will test candidates' abilities to:

AO1   Use mathematical techniques and procedures
- Recall facts, formulas and notation and use them directly.
- Read and use information from tables, graphs, diagrams and texts.
- Carry out straightforward mathematical procedures.

AO2   Formulate and solve problems including those in real-world contexts
- Select relevant mathematical concept or strategy to apply.
- Formulate problems into mathematical expressions or models.
- Integrate mathematical concepts to solve mathematical problems.
- Translate between equivalent forms of mathematical expressions or statements.
- Interpret results in the context of a given problem.

AO3   Reason and communicate mathematically
- Explain the choice of mathematical models or strategies.
- Make deductions, inferences and generalisations
- Formulate conjectures and justify mathematical statements.
- Construct mathematical arguments and proofs

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 (Statistics – 60 marks) will consist of about 6 – 8 questions of different lengths and marks based on the 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 as well as 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**	1.1 Functions 1.2 Graphs & Transformations 1.3 Equations & Inequalities
2	**Sequences & Series**	2.1 Sequences & Series
3	**Vectors**	3.1 Basic properties of vectors in two- & three-dimensions 3.2 Scalar & vector products in vectors 3.3 Three-dimensional vector geometry
4	**Introduction to Complex Numbers**	4.1 Complex numbers expressed in cartesian form and Argand diagrams
5	**Calculus**	5.1 Differentiation 5.2 Maclaurin's Series 5.3 Integration Techniques 5.4 Definite Integrals 5.5 Differential Equations
Probability & Statistics	
6	**Probability & Statistics**	6.1 Probability 6.2 Discrete random variables 6.3 Normal distribution 6.4 Sampling 6.5 Hypothesis testing 6.6 Correlation & 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
	• conditions for a quadratic equation to have:
	  (i) two real roots
	  (ii) two equal roots
	  (iii) 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 • four operations on indices and surds • rationalising the denominator

A3	Polynomials and partial fractions
	• multiplication and division of polynomials
	• use of remainder and factor theorems
	• partial fractions with cases where the denominator is not more complicated than:
	  − $(ax + b)(cx + d)$
	  − $(ax + b)(cx + d)^2$
	  − $(ax + b)(x^2 + c^2)$

A4	Power, Exponential, Logarithmic, and Modulus functions • 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 • 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 • 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	Differentiation and integration • 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)
The assessment will test candidates' abilities to:

AO1   Use mathematical techniques and procedures
 • Recall facts, formulas and notation and use them directly.
 • Read and use information from tables, graphs, diagrams and texts.
 • Carry out straightforward mathematical procedures.

AO2   Formulate and solve problems including those in real-world contexts
 • Select relevant mathematical concept or strategy to apply.
 • Formulate problems into mathematical expressions or models.
 • Integrate mathematical concepts to solve mathematical problems.
 • Translate between equivalent forms of mathematical expressions or
    statements.
 • Interpret results in the context of a given problem.

AO3   Reason and communicate mathematically
 • Explain the choice of mathematical models or strategies.
 • Make deductions, inferences and generalisations
 • Formulate conjectures and justify mathematical statements.
 • Construct mathematical arguments and proofs.

Scheme of Examination Papers:

For the examination in H2 Mathematics, there will be two 3-hour papers, each carrying 50% of the total mark, and each marked out of 100, as follows:

PAPER 1 (3 hours)
A paper consisting of 10 to 12 questions of different lengths and marks based on the Pure Mathematics section of the syllabus.

There will be one question on application of Mathematics in real-world contexts, including those from sciences and engineering. This 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.

PAPER 2 (3 hours)
A paper consisting of two sections, Sections A and B.

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

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

There will be one question in Section B on the application of Mathematics in real-world contexts, including those from sciences and engineering. This 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.

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

H2 Further Mathematics
Subject Code: 9649

H2 Further Mathematics is to be offered with H2 Mathematics as a double mathematics course.

H2 Further Mathematics is designed for students who are mathematically inclined and who intend to specialize in mathematics, sciences or engineering or disciplines with higher demand on mathematical skills. It extends and expands on the range of mathematics and statistics topics in H2 Mathematics and provides these students with a head start in learning a wider range of mathematical methods and tools that are useful for solving more complex problems in mathematics and statistics.

Course objectives
To enable students to:
1. acquire a **wider range** of mathematical concepts and **stronger** set of mathematical skills for their tertiary studies in **mathematics, sciences, engineering** and other related disciplines with a **heavier** demand on mathematics;
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 sciences, engineering and other related disciplines;
4. experience and appreciate the **rigour** and **abstraction** in the discipline.

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 the 'O'-Level Mathematics and Additional Mathematics are assumed. The **minimum grades of "A1" in** '**O'-Level Mathematics and Additional Mathematics** are required for students who intend to offer H2 Further Mathematics.

Interested applicants are required to sit for a proficiency test.

Syllabus Outline

Topic	Sub-topics
Pure Mathematics	
1. Algebra and Calculus	1.1 Complex Numbers 1.2 Polar Coordinates 1.3 Applications of definite Integrals 1.4 Functions of two variables 1.5 Differential Equations
2. Discrete Mathematics, Matrices and Numerical Methods	2.1 Recurrence Relations 2.2 Matrices and Linear Spaces 2.3 Numerical Methods
3. Probability and Statistics	3.1 Discrete random variables 3.2 Continuous random variables 3.3 Hypothesis testing and Confidence intervals 3.4 non-parametric tests

Assessment Objectives (AO)

The assessment will test candidates' abilities to:

AO1   Use mathematical techniques and procedures
- Recall facts, formulas and notation and use them directly.
- Read and use information from tables, graphs, diagrams and texts.
- Carry out straightforward mathematical procedures.

AO2   Formulate and solve problems including those in real-world contexts
- Select relevant mathematical concept or strategy to apply.
- Formulate problems into mathematical expressions or models.
- Integrate mathematical concepts to solve mathematical problems.
- Translate between equivalent forms of mathematical expressions or statements.
- Interpret results in the context of a given problem.

AO3   Reason and communicate mathematically
- Explain the choice of mathematical models or strategies.
- Make deductions, inferences and generalisations
- Formulate conjectures and justify mathematical statements.
- Construct mathematical arguments and proofs.

Scheme of Examination Papers:

For the examination in H2 Further Mathematics, there will be two 3-hour papers, each carrying 50% of the total mark, and each marked out of 100, as follows:

PAPER 1 (3 hours)

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

There will be one question on application of Mathematics in real-world contexts, including those from sciences and engineering. This 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.

PAPER 2 (3 hours)

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

Section A (Pure Mathematics – 50 marks) will consist of 5 to 6 questions of different lengths and marks based on the Pure Mathematics section (i.e., Algebra and Calculus, Discrete Mathematics, Matrices and Numerical Methods) of the syllabus.

Section B (Probability and Statistics – 50 marks) will consist of 5 to 6 questions of different lengths and marks based on the Probability and Statistics section of the syllabus.

There will be one question in Section B on the application of Mathematics in real-world contexts, including those from sciences and engineering. This 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.

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 Mathematics and are passionate about learning of Mathematics. **A distinction grade in H2 Mathematics (preferably in the 90th percentile) and at least a grade "B" for all other H2 subjects at the JC1 Promotional Examinations are required for students who intend to offer H3 Mathematics.**

Syllabus Outline:

	Topics/ Sub-topics	Content	Remarks

1	Mathematical Statements	Include:
		• Definition, Proposition and Theorem
		• Conditionals
		   ○ if … then …
		   ○ … if and only if …
		   ○ Necessary
		   ○ Sufficient
		• Quantifiers such as
		   ○ There exists (a unique) …
		   ○ For all …
		• Logical connectives
		   ○ "and", "or", "not", "implies"
		• Converse
		• Inverse
		• Contrapositive
		• Negation
			Students should be able to read, understand and write mathematical statements. Students will learn these in the process of solving problems and through exposure to mathematical readings. While the content is listed as a topic in itself, we recommend that it is integrated into the teaching of the other topics in the syllabus (rather than taught as an independent topic).

2	Mathematical Proofs and Reasoning Principles	Include: • Direct proof • Disproof by counterexample • Proof by contradiction • Proof of existence • Proof of uniqueness • Proof by construction • Proof by cases • Proof by mathematical induction • Pigeonhole principle • Symmetry principle • Combinatorial arguments and proofs	Students should be familiar with different methods of proof and reasoning principles and use them appropriately in the process of solving problems. While the content is listed as a topic in itself, we recommend that it is integrated into the teaching of the other topics in the syllabus (rather than taught as an independent topic).

	Topics/ Sub-topics	Content	Remarks
3	Problem Solving Heuristics	Include: • Working backwards • Uncovering pattern and structure • Solving a simpler/similar problem • Considering cases • Restating the problem (e.g. contrapositive)	Students will learn these in the process of solving problems. While the content is listed as a topic in itself, we recommend that it is integrated into the teaching of the other topics in the syllabus (rather than taught as an independent topic).

4	Assumed Knowledge from H2 Math and Additional Content	Include:
		• Functions and Graphs concepts from H2 Math
		• Sequences and Series concepts from H2 Math, with the following addition:
		   ○ Summation of series by the method of differences
		• Complex Numbers concepts from H2 Math
		• Calculus concepts from H2 Math, with the following addition:
		   ○ Reduction formulae
		   ○ Improper integrals
		• Probability (including counting) concepts from H2 Math, with the following addition:
		   ○ Bijection principle (include the case of distributing indistinguishable objects into distinguishable boxes)
		   ○ Inclusion-Exclusion principle
		• Additional inequalities
		   ○ AM-GM inequality
		   ○ Cauchy-Schwarz inequality
		   ○ Triangle inequality
		• Introduction to limits
		   ○ Comparing polynomial, exponential, and logarithmic growth rates
		   ○ Operations involving limits e.g. limit of a sum is the sum of the limits, if exist
		• Concepts of congruence and modular arithmetic
			Students are expected to solve non-routine problems using knowledge of Functions, Graphs, Sequences, Series, Complex Numbers, Calculus and Probability (including Counting) from H2 Mathematics. These problems may involve working with inequalities, limits, counting and integers. The sub-bullets represent the additional knowledge that students may need to solve such problems.

	Topics/ Sub-topics	Content	Remarks
5	Mathematical Investigation and Reading Mathematical Texts	Include: • Formulating a conjecture • Extension, generalisation, special cases • Complete or critique a solution	Students should have opportunities to study a mathematical situation or problem, develop and state a conjecture, or extend a problem etc. or complete or critique a solution. This topic is intended to reflect the emphasis on providing opportunities for students to carry out investigations and read mathematical texts, which are useful skills, especially for those who are interested to pursue maths or courses where maths plays a substantial part at the university.

Assessment Objectives (AO)

The assessment will test candidates' abilities to:

AO1
- Use mathematical techniques and procedures
- Recall facts, formulas and notation and use them directly.
- Read and use information from tables, graphs, diagrams and texts.
- Carry out straightforward mathematical procedures.

AO2
- Formulate and solve problems including those in real-world contexts
- Select relevant mathematical concept or strategy to apply.
- Formulate problems into mathematical expressions or models.
- Integrate mathematical concepts to solve mathematical problems.
- Translate between equivalent forms of mathematical expressions or statements.
- Interpret results in the context of a given problem.

AO3
- Reason and communicate mathematically
- Explain the choice of mathematical models or strategies.
- Make deductions, inferences and generalisations
- Formulate conjectures and justify mathematical statements.
- Construct mathematical arguments and proofs.

Scheme of Examination Paper:

For the examination in H3 Mathematics, there will be one 3-hour paper marked out of 80. The paper will consist of 6 questions of different lengths.

Questions 1 to 5 will be worth 10 to 14 marks each.

Question 6 will be worth 16 to 20 marks and will require students to read and respond to a short mathematical text.

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

H2 Computing
Subject Code: 9569

Course objectives:
The syllabus aims to develop problem-solving and computational thinking skills in students, as well as 21CC that will help them to adapt to advancements in the field of computing and global changes impacting the workplace and society.

Students would acquire fundamental knowledge in core areas of computing and draw connections to real-world problems by applying these knowledge, skills and attitudes to solve a variety of authentic learning tasks.

The main aims of the syllabus are to:
1 Acquire knowledge and understanding of core areas in computing covering concepts of algorithms, data structures, programming, databases and networks.
2 Develop and apply problem-solving and computational thinking skills to solve real-world problems using suitable algorithms and data structures in a web-based environment using a personal computer.
3 Develop
   (i) an appreciation of computing as a dynamic and creative field including awareness of recent developments in computer systems; and
   (ii) an understanding of the social, ethical, legal and economic implications of computing.
4 Develop attitudes and 21CC needed to do well in computing such as inventive thinking, perseverance, collaboration, communication as well as striving for accuracy and thoroughness.

COURSE REQUIREMENTS:
Knowledge of the content of the 'O'-Level Mathematics and Additional Mathematics are assumed. The **minimum grade of "B3" in Additional Mathematics** is required for students who intend to offer H2 Computing. Interested applicants are required to sit for a proficiency test.

ASSESSMENT OBJECTIVES:
The examination will assess:
AO1 Knowledge and understanding of computing concepts, algorithms, techniques, tools and related ethics.

AO2 Application of knowledge and understanding to analyse real-world problems requiring computing solutions.

AO3 Design and develop effective computing solutions; test computing solutions.

Students will demonstrate computational thinking in a range of real-world problems requiring computing solutions. They will be familiar with and can apply fundamental algorithms and data structures; be able to comment on the social, ethical, legal and economic consequences of computing; understand good design principles and implementation considerations for computing solutions.

CONTENT OUTLINE:
The syllabus consists of four sections: (1) Algorithms and Data Structures, (2) Programming, (3) Data and Information, and (4) Computer Networks.

Section 1: Algorithms and Data Structures
This section introduces the implementation of data structures to store and retrieve data efficiently, as well as their associated algorithms with the aim of developing problem-solving skills. It also includes important software development concepts of decomposition and modularity, as well as techniques such as the use of decision tables to test if algorithms work as intended. Students will need to abstract both data and procedures when they apply computational thinking to a problem. Students will also learn to implement various search and sort algorithms and compare their efficiencies for evaluation purposes.

Section 2: Programming
This section introduces students to the fundamental principles of programming in scripting languages. Students will learn about the common standards of programming style, programming constructs and library functions to be able to develop their own programs to solve a variety of problems. They are also required to write code to implement data structures such as stacks, queues, linked lists and binary search trees. In addition, students will be expected to design, test and debug their own programs to ensure that they can work through lab-based practical assignments. The fundamental concepts of encapsulation, inheritance and polymorphism associated with object-oriented programming are also covered in this section.

Section 3: Data and Information
This section introduces students to the design, use and application of database management systems. The topics include relational data model, relational query languages and conceptual data design and modelling for relational database design. Students are expected to write programs to retrieve data from either a relational or non-relational database, process the data and return the processed data as a result. The use of databases also highlights the importance of data privacy and integrity. Students should be able to describe measures to safeguard the use of data. In addition, students should be able to describe the code of conduct of a computing professional and discuss the social, economic and ethical implications of computing and technology.

Section 4: Computer Networks
This section provides a broad view of the different types of basic networks, communication protocols and standards in a network. Students will be expected to understand concepts and techniques for developing web applications, describe the different types of threats to network security and propose mechanisms to protect and secure access to networks. They need to design, develop and test web applications as a consolidation of knowledge and skills through hands-on practical work and projects.

SCHEME OF EXAMINATION:
All candidates will offer Paper 1 and Paper 2. All questions are compulsory in both papers.

Paper 1 (Written examination, 3 hours)
This paper tests all four sections of the syllabus through six to eight structured questions of different lengths and marks. This paper carries 60 per cent of the total marks and covers assessment objective AO1–AO3.

Paper 2 (Lab-based examination, 3 hours)

This paper tests all four sections of the syllabus through four structured questions of different lengths and marks taken in a computer laboratory. The questions will test candidates' problem-solving ability through the writing of effective and practical algorithms using HTML, CSS and the Python Programming Language. Candidates are also expected to make use of built-in SQL database engine, SQLite, and a Python web application development framework, Flask, appropriately to solve the problems presented in the examination. This paper carries 40 per cent of the total marks and covers assessment objectives AO2 and AO3.

Candidates will submit soft copies of the required work for marking. The allotted time includes time for saving the required work in the candidates' computer.

The duration, weighting, marks and number of questions are as follows:

Paper	Mode	Duration	Weighting	Marks	No. of Questions
1	Written	3 hours	60%	100	6 - 8
2	Lab-based	3 hours	40%	100	4

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 %

<u>Paper 1</u>

This paper will consist of 30 compulsory multiple-choice questions.

<u>Paper 2</u>

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.

Four Core ideas:	Two Extension Topics:
1. The Cell and Biomolecules of Life 2. Genetics and Inheritance 3. Energy and Equilibrium 4. Biological Evolution	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)   15%
- Analysis, conclusions and evaluation (ACE)

H3 Biology
Subject Code: 9816

Introduction

The H3 Biology syllabus has been designed to build on and extend the knowledge, understanding and skills acquired from the H2 Biology (9744) syllabus. It caters to students of strong ability and keen interest in biology and is designed with a strong emphasis on independent and self-directed learning. Students should simultaneously offer H2 Biology. The H3 Biology syllabus is meant to provide greater depth and rigour in the subject for students pursuing further studies in biology-related fields.

Outline of Syllabus

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

Four Core ideas:	Two Extension Topics:

1.   The Cell and Biomolecules of Life
• The cell theory •The fluid mosaic model
• Cell differentiation • Protein modification
 	
2.   Genetics and Inheritance
• Procedures for cloning genes
• The structure and role of ribozymes
• Techniques in genetic engineering
• Epigenetics
 	
3. Energy and Equilibrium
• C3, C4, CAM plants and algae
• Nervous system • Quorum sensing
• Control and feedback mechanisms
• Communication systems in organisms
 	
4. Biological Evolution
• Adaptive radiation and ring species
• Polyploidy, hybridisation and
   introgression in evolution • Mitochondrial
   DNA and Y-chromosomal Adam
	1. Infectious Diseases
	• The immune system – adaptive and innate • Importance of microbiota to human health • Factors that could result in a pandemic
	
	2. Impact of Climate Change on Animals and Plants
	• Effects of climate change on the environment, plants and animals
	• Actions to mitigate climate change
	• How animal and plant species respond to climate change

Scheme of Assessment (2h 30 min, 75 marks)

This paper will consist of two sections, as follows:

Section A (50 marks) will comprise one compulsory stimulus-based question (25 marks) that may consist of a variable number of structured subparts; and one compulsory free-response question (25 marks), with no subparts. For the free-response question, the quality of scientific argumentation and written communication will be given a percentage of the marks available.

Section B (25 marks) will comprise 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.

Questions in both sections may be set on any area of the H3 and H2 syllabuses and may require candidates to use material from different areas of the syllabuses within a single answer. Marks will also be available for evidence shown for relevant reading around the subject.

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
	  - 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) Sect B: 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
	  - Acid-base Equilibria
	  - Solubility Equilibria
	2. Organic Chemistry
	  - 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 - 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.

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 though 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 lifelong interest in the visual arts.

Course Content
Candidates taking the H2 Level Art will be required to offer

Paper 1: Study of Visual Arts (SOVA) and **Paper 2: Coursework**

The Study of Visual Arts (SOVA):
- 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	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 *mainly* on microeconomics and Section B comprises another 3 essay questions focusing *mainly* on macroeconomics. 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 25 marks.

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

H1 Geography
Subject Code: 8834

Aims and Learning Outcomes:

Knowledge
The syllabus requires students to develop an understanding of:
- the uniqueness of places;
- the dynamic and complex interactions and interdependence between natural environments and human environments at various scales;
- the evolution of landscapes and development of issues over time;
- the processes that shape spaces, places and the environment at various scales;
- the connections, trends and patterns in different parts of Asia and the rest of the world;
- a range of contemporary issues in different parts of Asia and the rest of the world through geographical perspectives; and
- knowledge from different subfields of geography to understand different approaches to solve real-world problems and achieve sustainable development.

Skills
The syllabus seeks to equip students with the ability to:
- consider evidence and different viewpoints to develop logical arguments and explanations;
- analyse, evaluate and reflect on information from a geographical perspective to make informed and sound decisions;
- construct understanding through inquiry using different data collection and analysis methods; and
- use and evaluate data representation techniques to communicate findings.

Values
The syllabus seeks to encourage students to:
- be inspired by the splendour of natural environments and human ingenuity;
- care for delicate ecosystems and understand the importance of environmentally sustainable lifestyles;
- develop as global citizens, seek harmony and respect others in a culturally diverse world; and
- contribute responsibly towards the building of a robust and inclusive society.

Syllabus Content
H1 Geography is designed around two main clusters of content.

Cluster 1 Sustainable Future and Climate Change
- Topic 1.1: Cities in a Sustainable Future
  - Sustainable Urban Development
  - Sustainable Cities
  - Liveable Cities

- Topic 1.2: The Future with Climate Change
  - The Science of Climate Change
  - Possible Effects of Climate Change
  - Responses to Climate Change

Cluster 2 Fieldwork
- Community response to climate change
- Needs analysis of the elderly living in an urban neighbourhood

Examination Format

Duration: 3 hours (100%)		
Section A (30%)	One compulsory structured question that assesses students' mastery of Cluster 2: Fieldwork.	The question carries 30 marks and comprises no more than 6 sub-parts. It includes a 10-mark evaluative sub-part.
Section B (44%)	Two compulsory structured questions that assess students' mastery of Cluster 1: Sustainable Future and Climate Change.	Each question carries 22 marks and comprises no more than 5 sub-parts. Each question may be on a specific topic or a combination of topics within Cluster 1.
Section C (26%)	Three evaluative questions on Cluster 1 will be set, but only TWO need to be answered. Each question carries 13 marks.	

H2 Geography
Subject Code: 9173

Aims and Learning Outcomes
Please refer to the course objectives listed in H1 Geography.

Course Content
H2 Geography examines four clusters of content 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.

Cluster 1 Development, Economy and Environment
- Topic 1.1: Environment and Resources
    - Understanding Sustainable Development
    - Environment and Resources
    - Managing Resources

- Topic 1.2: Development and the Global Economy
    - Development
    - Geography of the Global Economy and Transnational Corporations (TNCs)
    - Relative Influence of Actors in Shaping the Global Economy

Cluster 2 Tropical Environments
- Topic 2.1: Tropical Climates and Drainage Basins
    - Tropical Climates
    - Drainage Basin Hydrology
    - Floods in the Humid Tropics

- Topic 2.2: Landforms in the Tropics
    - Geomorphic Processes
    - Karst Landscapes in the Humid Tropics
    - Fluvial Landforms in the Humid Tropics

Cluster 3 Sustainable Future and Climate Change
- Topic 3.1: Cities in a Sustainable Future
    - Sustainable Urban Development
    - Sustainable Cities
    - Liveable Cities

- Topic 3.2: The Future with Climate Change
    - The Science of Climate Change
    - Possible Effects of Climate Change
    - Responses to Climate Change

Cluster 4 Fieldwork
- Community response to climate change
- Needs analysis of the elderly living in an urban neighbourhood
- Fluvial flood risk and strategies to mitigate it

Examination Format

Paper 1 – 3 hours (100 m; 50%)		
Section A (60 m)	Two compulsory structured question that assesses students' mastery of Clusters 1 and 2.	Each question carries 30 marks and comprises no more than 6 sub-parts. Each question may be on a specific topic or a combination of topics within the cluster.
Section B (40 m)	Four evaluative questions on Clusters 1 and 2 will be set, but only TWO need to be answered. • Cluster 1 – Either Qn 3 or Qn 4 • Cluster 2 – Either Qn 5 or Qn 6 Each question carries 20 marks.	

Paper 2 – 3 hours (90 m; 50%)		
Section A (40 m)	One compulsory structured question that assesses students' mastery of Cluster 4: Fieldwork.	The question carries 40 marks and comprises no more than 8 sub-parts. It includes a 10-mark evaluative sub-part.
Section B (30 m)	One compulsory structured question that assesses students' mastery of Cluster 3: Sustainable Future and Climate Change.	The question carries 30 marks and comprises no more than 6 sub-parts. Each question may be on a specific topic or a combination of topics within Cluster 3.
Section C (20 m)	Two evaluative questions on Cluster 3 will be set, but only ONE need to be answered. • Cluster 3 – Either Qn 3 or Qn 4 Each question carries 20 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: 8838

Course Objectives

The H1 History syllabus seeks to:
1. develop in learners the dispositions to be <u>curious about the past</u> and <u>open to multiple perspectives</u>;
2. engage in historical inquiry to develop <u>confident, self-directed, critical and reflective</u> thinkers;
3. understand historical concepts, methods and processes to make <u>informed judgments</u> of the past and to better understand the present;
4. develop historical knowledge and understanding to develop local, regional and <u>global awareness and cross-cultural skills</u>; and
5. enhance appreciation of the past to develop a <u>sense of identity</u> and cultivate a <u>concerned citizen</u>.

Course Content

A.   Compulsory Source-Based Study:

Theme I: The Development of the Cold War, 1945–1991
- The Emergence of Bipolarity after the Second World War
- Manifestations of the Global Cold War
- End of the Cold War

B.   Thematic Study:

Theme II: The Cold War and East Asia, 1945-1991
- China and the Cold War (1950-1991)
- Japan and the Cold War (1952-1991)

Theme III: The Cold War and Southeast Asia, 1945-1991
- Manifestations of the Cold War in Southeast Asia
- ASEAN and the Cold War (1967-1991)
- Singapore and the Cold War (1965-1991)

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 (1945-1991)	
Section A (40%)	**Theme 1: The Development of the Cold War, 1945–1991** 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: • 1 out of 2 essay questions set on Theme II: The Cold War and East Asia, 1945-1991 (30 marks; 30%) • 1 out of 2 essay questions set on Theme III: The Cold War and Southeast Asia, 1945-1991 (30 marks; 30%)

H2 History
Subject Code: 9174

Course Objectives
Please refer to the course objectives listed in H1 History.

Course Content
Candidates must offer <u>two</u> papers, Papers 1 and 2.

Paper 1: The Changing International Order, 1945-2000
Theme I
Understanding the Cold War, 1945–1991:
- The Emergence of the Cold War after the Second World War
- Manifestations of the Global Cold War
- End of the Cold War

Theme II
The Development of the Global Economy, 1945-2000:
- Growth and Challenges in the Global Economy
- Transformation of East Asia (Japan and China)

Theme III
Conflict and Cooperation (1945-2000):
- Causes, Development and Management of Inter-state Conflicts: Indo-Pakistani Conflict (1945-1972) and Arab-Israeli Conflict (1945-1979)
- Causes, Development and Management of Intra-state Conflicts: Congo Crisis (1960-1965) and Bosnian War (1992-1995)

Paper 2: Developments in Southeast Asia, Independence-2000
Theme I
Forming Nation-States:
- Establishing political structures and legitimacy
- Consolidation of power
- Pursuit of national unity

Theme II
Economic Change after Independence
- Economic change in Southeast Asia
- Outcomes of economic change

Theme III
Regional Conflicts and Cooperation
- Inter-state Tensions and Cooperation
- ASEAN

Scheme of Assessment
Candidates will be required to sit for <u>two</u> written papers, Paper 1 and 2, of which the duration is three hours per paper. Each 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.

Paper 1: The Changing International Order, 1945-2000 (50% weighting)

Section	Item Description	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%)	40 marks (20%)
B (Essays)	Candidates will answer: • 1 out of 2 essay questions set on Theme II: The Development of the Global Economy, 1945-2000 (30 marks; 15%). • 1 out of 2 essay questions set on Theme III: Conflict and Cooperation, 1945-2000 (30 marks; 15%).	60 marks (30%)

Paper 2: Developments in Southeast Asia, Independence-2000 (50% weighting)

Section	Item Description	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%)	40 marks (20%)
B (Essays)	Candidates will answer: • 1 out of 2 essay questions set on Theme II: Forming Nation-States (30 marks; 15%). • 1 out of 2 essay questions set on Theme III: Economic Change after Independence (30 marks; 15%).	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: 8841 (H1), 9539 (H2), 9805 (H3)

Course Objectives
Through the study of Literature in English, students will:
1. experience the joy of reading literature
2. appreciate diverse perspectives as well as negotiate the complexities and ambiguities in exploring universal human concerns
3. demonstrate the skills to critically analyse and evaluate literary texts
4. respond to literary texts with an understanding of genre and cultural contexts
5. communicate informed, sensitive and personal responses effectively and persuasively
6. develop a love for reading literature.

Assessment Objectives
Candidates should be able to:
1. make informed personal and critical responses to the texts, exploring connections between texts where appropriate, and account for their responses
2. demonstrate how the literary context of the text informs their understanding of the text
3. critically analyse and evaluate ways in which writers' choices of form, structure and language shape meanings
4. 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 2 to H2 candidates.

- Each paper will be three hours long. Candidates will answer three questions in each paper. 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. At least one of the questions will feature a Singaporean poem. 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 o**ne 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 response and 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**.

Paper 2: Reading Literature *featuring* the English Romantic Period (1785–1832) (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 will study **three texts** in their chosen paper. The examination consists of three sections.

- **Section A (Unseen Prose and Drama): Two** questions will be set, primarily focusing on response skills. One question will feature an unseen prose passage and the other will feature an unseen drama passage. Candidates will answer **one** of the two questions.

- **Section B (The English Romantic Period (1785–1832)):** Candidates will study two of the set texts. **Two** comparison questions will be set, primarily focusing on comparison and analysis skills. Candidates will answer **one** of the two questions, using the two texts.

- **Section C (Pre-20th Century Writing):** Candidates will study **one** of the set texts. Two questions will be set for each text, primarily focusing on response and analysis skills. One question will be an essay question and the other will be a passage-based question. Candidates will answer **one** question on the text they have studied.

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》 《嗳呸店》	郭宝崑	本地戏剧

*本地作品

H2 MALAY LANGUAGE AND LITERATURE
Subject Code: 9576/1, 9576/2 & 9576/3

Matlamat Kursus Bahasa

Membina kemahiran pelajar untuk:
(a) mentafsirkan dan menilai maklumat dan perincian penting dalam teks lisan dan tulisan tentang pelbagai topik dengan menggunakan bahasa yang baku;
(b) membuat kesimpulan yang jitu tentang sesuatu teks dan mengaitkannya dengan pengalaman pelajar;
(c) melahirkan, menyampaikan dan bertukar-tukar pandangan dengan jelas dan berstruktur
menggunakan lensa yang berbeza tentang pelbagai topik semasa berkomunikasi;
(d) menggunakan beberapa strategi yang sesuai untuk menulis esei naratif dengan jelas dan
tersusun untuk menggambarkan peristiwa dan pengalaman atau menulis esei perbincangan
yang mampu memperkukuh sudut pandangan dengan berlandaskan alasan-alasan dan bukti-bukti yang wajar; dan
(e) memberikan komen tentang pelbagai topik di luar bidang mereka dan dapat menyampaikan
pendapat mereka dengan ringkas, padat dan jitu.

Matlamat Kursus Kesusasteraan

Membina kemahiran pelajar untuk:
(a) menyelami teks dan mengaitkan diri mereka dengan pelbagai teks serta membuat renungan
berdasarkan pengalaman hidup mereka;
(b) memahami unsur-unsur kesusasteraan dalam genre yang berbeza, mengapresiasi nilai
estetik teks dan penggunaan gaya bahasa penulis dengan minda yang perseptif dan ingin
tahu;
(c) menganalisis gagasan utama dan persoalan-persoalan dalam kesemua teks dan meneroka
kepentingan sesuatu teks itu terhadap masyarakat dan dunia;
(d) memahami teks dengan membuat kaitan antara konteks yang terdapat dalam teks dengan
dunia tempat tinggal mereka. Mereka boleh membuat renungan tentang pegangan nilai, perspektif dan identiti mereka serta meningkatkan kesedaran menerusi lensa yang berbeza-beza;
(e) mengkonsepkan maksud melalui penulisan, menggambarkan peristiwa dan pengalaman
serta menyampaikan pandangan mereka dengan bukti-bukti, alasan-alasan dan hujahan, dan juga menggabungkan dan menyampaikan respons mereka kepada orang lain; dan
(f) dapat mencipta karya-karya asli dengan gaya penulisan dan pendekatan mereka tersendiri.

Format Penilaian

Format peperiksaan bagi Bahasa dan Kesusasteraan Melayu H2 Peringkat Lanjutan terbahagi
kepada:

Kertas 1: Karangan (1 jam 15 minit: 35 markah)

Kertas 1 - terdapat satu bahagian sahaja.

Calon dikehendaki menulis karangan yang panjangnya tidak kurang daripada 460 patah perkataan tentang salah satu topik yang diberikan. Calon dibenarkan untuk menggunakan kamus yang diluluskan.

Kertas 2 (e-Peperiksaan): Kefahaman (1 jam 45 min: 65 markah)

Kertas 2 - terbahagi kepada dua bahagian.

Bahagian A: Kefahaman dan Kosa Kata (32 markah)

Calon dikehendaki menjawab empat soalan kefahaman dan soalan kosa kata.

Bahagian B: Kefahaman dan Komentari (33 markah)

Calon dikehendaki menjawab tiga soalan kefahaman dan menulis komentari yang panjangnya tidak melebihi 160 patah perkataan berdasarkan dua teks sumber yang diberikan.

Kertas 3: Kesusasteraan (3 jam: 100 markah)

Kertas 3 terbahagi kepada empat bahagian:

Bahagian A	Bahagian B	Bahagian C	Bahagian D
Novel dan Cerpen	Puisi Tradisional dan Puisi Moden	Drama	Analisis Teks Bebas

Calon dikehendaki menjawab empat soalan kesemuanya; SATU soalan daripada setiap bahagian. Soalan-soalan dalam kertas ini berbentuk *open book*. Calon dibenarkan untuk merujuk kepada buku-buku teks yang telah ditetapkan.

Buku Teks

1. *Novel Batas Langit* (Edisi Pelajar) oleh Mohamed Latiff Mohamed, terbitan Angkatan Sasterawan '50, 2021
2. *Antologi Titik Pertemuan*, terbitan Angkatan Sasterawan '50, 2021

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 மாணவர்களுக்குரியன. 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、写和语言综合运用的能力，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 本科考试包括下列两个试卷：

1. 试卷一：

第一部分：写作（60 分）

第二部分：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	写作	开放式	记叙文 说明文 议论文	4 选 1	60/30%	文章的字数在 500 以上。 学生可以使用考评局规定的词典。
	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 个实用性语料，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 根据篇章的段落，缩写成不超过 70 字的短文	9	40/20%	
共					26	**140/70%**	

2. 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 口头报告	开放式	课程三大主题： 1. 文化 2. 关系 3. 变化	1	20/10%	根据所提供的话题，结合录像短片的内容，然后呈献一个不超过 2 分钟的口头报告。
	讨论	开放式		1	30/15%	主考员根据口头报告的内容，跟学生进行讨论。
	听力理解	多项选择	一个语段，一个简短对话，以及三个理解篇章 包括日常会话、广播、访谈、故事、新闻报道等	10	10/5%	先听录音，然后回答问题。
共				12	**60/30%**	

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

1. 所有修完中学华文 B 课程，以及考获'O'水准华文等级 D7‐F9 的学生必修，并于高一年底参加'A'水准考试。

2. 本科试卷是遵照教育部《高中华文 B 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：

   1. 试卷一：

   ### 写作（20 分）

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%	在电脑上进行写作，并通过电脑系统呈交答案。 字数在 200 以上。 学生可以使用考评局规定的词典。
共				1	**20/20%**	

   2. 试卷二：

   ### 语文理解与应用（30 分）

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%	在电脑上进行作答，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%**	

3. 试卷三：

口试（35分）

听力理解（15分）

试卷	考查项目	方式	范围	题数	分数/比重	备注
三	口试 口头报告	开放式	课程主题： 　1. 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。
	会话	开放式	课程主题： 　2. 关系 　3. 变化	1	20/20%	针对所提供的录像短片，以及主考员的提问，跟主考员进行一段对话。
	听力理解	多项选择	三个简短对话或语段，以及三个理解篇章 包括日常会话、广播、故事、新闻报道等	10	15/15%	先听录音，然后回答问题。
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 Objektif (10m/5%) C. Mengedit Teks (20m/10%) D. Kefahaman Subjektif (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%
		Jumlah	**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 'Tidak bergred' (*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 once 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 a compulsory workshop yearly. 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.
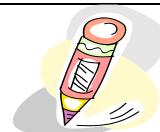
NOTES

NOTES

2024 Calendar

JANUARY

S	M	T	W	T	F	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

S	M	T	W	T	F	S
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MARCH

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31						

APRIL

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28	29	30				

MAY

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26	27	28	29	30	31	

JUNE

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30						

JULY

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28	29	30	31			

AUGUST

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SEPTEMBER

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29	30					

OCTOBER

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27	28	29	30	31		

NOVEMBER

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DECEMBER

S	M	T	W	T	F	S
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8	9	10	11	12	13	14
15	16	17	18	19	20	21
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29	30	31				

2024 Scheduled Public Holidays
Mon 1 Jan: New Year's Day
Sat 10 Feb and *Sun 11 Feb: Chinese New Year
Fri 29 Mar: Good Friday
Wed 10 Apr: Hari Raya Puasa
Wed 1 May: Labour Day
Wed 22 May: Vesak Day
Mon 17 Jun: Hari Raya Haji
Fri 9 Aug: National Day
Thu 31 Oct: Deepavali
Wed 25 Dec: Christmas Day

2024 Scheduled School Holidays
**Sun 30 Jun: Youth Day
Fri 30 Aug: Teachers' Day

2024 School Vacation
After Term 1: Sat 9 Mar to Sun 17 Mar
After Term 2: Sat 25 May to Sun 23 Jun
After Term 3: Sat 31 Aug to Sun 8 Sep
After Term 4 (JC1) Sat 23 Nov to Tue 31 Dec
After Term 4 (JC2): End of A-Level exams to 31 Dec

Remarks:
* Mon, 12 Feb will be a public holiday and Tue, 13 Feb will be a school holiday and a designated day off-in-lieu. Schools will be closed, including the General Office.

** The following Monday will be a scheduled school holiday

☐ School Holiday.

THE MARK OF A SAINT UP AND ON

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