

## Frequently Asked Questions regarding MI Subject Options

### *General information:*

Millennia Institute offers the GCE A-Level Curriculum to our students. All students are required to offer two compulsory Knowledge Skills subjects (General Paper and Project Work), four content-based subjects and Mother Tongue Language.

All A-Level subjects are classified at H1, H2 or H3 level. General Paper (GP) and Mother Tongue Language (MTL) are H1 subjects. Of the four content-based subjects, students offer three at H2 level and one at H1 level. Project Work is a Pass/Fail subject and is not assigned a level.

The number of Academic Units (AU) assigned to H1, H2 and H3 subjects are as follows:

LEVEL	NO OF ACADEMIC UNITS
H1	1
H2	2
H3	1

Each student must offer 10 to 12 Academic Units of study. In addition, of the four content-based subjects, at least one must be a contrasting subject, taken at either the H1 or H2 level.

H3 subject(s) must be offered together with the corresponding subject(s) at the H2 level. Only students with excellent academic results at the end of PU2 are eligible to read a subject at H3 level at PU3 year of study.

### **1. What are H1 subjects and how are they different from the H2 subjects?**

A H1 subject is equivalent to half of a H2 subject in terms of content and curriculum time. However, the intellectual difficulty, rigour and skills of a H1 subject are comparable to the H2 subject.

### **2. What is a contrasting subject?**

All students are required to offer subjects in both the 'Humanities and the Arts' and 'Mathematics and Sciences' subject groups, as shown in the table below. A contrasting subject is a content-based subject taken outside a student's main area of specialisation. For example, an Arts student can offer 3 subjects from the 'Humanities and the Arts' subject group and 1 subject from the 'Mathematics and Sciences' subject group. It helps to provide a broad base of learning which prepares a student for the multi-disciplinary approach in university education. Contrasting subject(s) could be offered at H1 or H2 Level.

Subject group	H1	H2
<b>Humanities and the Arts</b>	Economics* History Literature in English	Art Economics* Management of Business Geography History Literature in English Chinese Language & Literature Malay Language & Literature Tamil Language & Literature
<b>Mathematics and Sciences</b>	Biology Chemistry Physics Mathematics	Biology Chemistry Physics Mathematics Principles of Accounting

\*Economics can be considered as a subject in the Mathematics and Science Group as well.

### 3. Can I offer 4 H2 subjects?

All MI students are to offer only 3 H2 content-based subjects and 1 H1 content-based subject. As the A-Level course is a highly demanding academic course, it is prudent that they only offer 3 H2 subjects to ensure that they can cope with the demands of the curriculum.

### 4. Can I offer a subject at both H1 and H2 Levels?

You are not allowed to offer the same subject at both H1 and H2 Levels as this would lead to a narrowing of the range of learning. A H1 subject covers part of the skills and content found in the corresponding H2 subject.

### 5. How many subject combinations does Millennia Institute offer?

Millennia Institute offers 28 different subject combinations to our students, including 10<sup>1</sup> in the Arts stream, 9<sup>12</sup> in the Commerce Stream and 13<sup>2</sup> in the Science stream. A table that shows the possible combinations we offer can be found in page 9.

### 6. Are there assumed knowledge for any subjects offered?

Students who chose to offer Science and Mathematics subjects need to be aware of the assumed knowledge<sup>3</sup> of the corresponding subject at GCE O-Level.

Subjects	Subject Level	Assumed Knowledge
Mathematics	<a href="#">H2</a> <sup>4</sup>	Knowledge of the content of the <b>O-Level Mathematics</b> syllabus and some of the content of the <b>O-Level Additional Mathematics</b> syllabus are assumed.
Biology	<a href="#">H1</a> <sup>4</sup>	Knowledge and understanding of <b>O-Level Biology</b> , either as a single subject or as part of a balanced science course is assumed.
	<a href="#">H2</a> <sup>4</sup>	
Chemistry	<a href="#">H1</a> <sup>4</sup>	Knowledge and understanding of <b>O-Level Chemistry</b> , either as a single subject or as part of a balanced science course is assumed.
	<a href="#">H2</a> <sup>4</sup>	
Physics	<a href="#">H1</a> <sup>4</sup>	Knowledge and understanding of <b>O-Level Physics</b> , either as a single subject or as part of a balanced science course is assumed.
	<a href="#">H2</a> <sup>4</sup>	

### 7. How am I allocated to the subject combination of my choice?

Students are allocated to their choice of subject combination based on academic merit, including their L1R4 aggregate score or equivalent, and performance in the relevant subject(s). The allocation also depends on the number of places that are available for each subject. In the event that a subject is oversubscribed, allocation is done based on academic merit.

<sup>1</sup> 3 subject combinations are offered to both the Arts and Commerce stream.

<sup>2</sup> 1 subject combination is offered to both the Commerce and Science stream.

<sup>3</sup> Assumed knowledge refers to the set of content knowledge that students are expected to have learnt in advance, usually as part of a corresponding subject at GCE O-Level, which will not be taught but is needed in the course of learning the GCE A-Level syllabus. Students without the assumed knowledge may offer the subject but will be required to bridge the knowledge gap during the course of study on their own.

<sup>4</sup> Students can find out more about the subject syllabuses at <https://www.moe.gov.sg/post-secondary/a-level-curriculum-and-subject-syllabuses>, or click on the hyperlink at each of the subject level in the table above.

## 8. How should I choose my subject combination?

There are two important factors to consider. Firstly, choose the subject combination that you have an aptitude in, that is, one that you can excel in. Your performance at the O-Level could be a good indication of your aptitude in the subject. Secondly, choose the subjects that you have a passion to find out what they offer at a higher level. As the A-Level curriculum is designed to be rigorous in content, having an interest in the subject is necessary to sustain through the course of study. The choice may not be a good one if either factor is not taken into consideration. You are strongly advised against choosing a subject because your friends have chosen it or because it is a popular combination.

## 9. Will my choice of subject combination at A-Level affect the university courses that I can apply to?

Your choice of higher education or career in the future may require you to pursue certain undergraduate courses at a university. Some university courses may have subject prerequisite that you need to fulfill before you can apply. You are advised to check the minimum requirements and indicative grade profile from the university websites before you make a decision on the subject combination to offer.

NTU	<a href="https://www3.ntu.edu.sg/oad2/website_files/Alevel/Min_Subject_Requirements.pdf">https://www3.ntu.edu.sg/oad2/website_files/Alevel/Min_Subject_Requirements.pdf</a>
NUS	<a href="http://www.nus.edu.sg/oam/apply-to-nus/singapore-cambridge-gce-a-level/subject-pre-requisites">http://www.nus.edu.sg/oam/apply-to-nus/singapore-cambridge-gce-a-level/subject-pre-requisites</a>
SIT	<a href="https://www.singaporetech.edu.sg/admissions/undergraduate/requirements/a-levels">https://www.singaporetech.edu.sg/admissions/undergraduate/requirements/a-levels</a>
SMU	<a href="https://admissions.smu.edu.sg/admissions/singapore-cambridge-gce-a-level">https://admissions.smu.edu.sg/admissions/singapore-cambridge-gce-a-level</a>
SUSS	<a href="https://www.suss.edu.sg/full-time-undergraduate/admissions/eligibility">https://www.suss.edu.sg/full-time-undergraduate/admissions/eligibility</a>
SUTD	<a href="https://www.sutd.edu.sg/Admissions/Undergraduate/Application/Admissions-Requirements/Singapore-Cambridge-GCE-A-Level">https://www.sutd.edu.sg/Admissions/Undergraduate/Application/Admissions-Requirements/Singapore-Cambridge-GCE-A-Level</a>

## 10. How do I know which subject combination to choose in order to pursue the career I want?

The Institute will provide you with the necessary guidance and information during your orientation period before you select your subject combination. You can also continue to access the My SkillsFuture portal (<https://www.myskillsfuture.gov.sg>) to explore your possible career pathways. In addition, the Institute has a dedicated Careers and Education Guidance (ECG) counsellor to provide you with one-to-one ECG counselling.

## 11. What are the H3 subjects offered by Millennia Institute?

Eligible students from Millennia Institute can apply for either one of these university H3 programmes:

- a. NUS-MOE Humanities and Social Science Research
- b. SMU Game Theory
- c. NTU Semiconductor Physics and Devices

## **FAQ ON GENERAL PAPER AND LITERATURE IN ENGLISH**

### 1. Do I have to pass General Paper to qualify for local universities?

General Paper is a subject included in the computation of University Admission Score (UAS). Doing well in it will enhance your chance of admission. Please refer to Page 8 on the University Admission Score Illustration.

### 2. I have not read English in Literature at O-Level in Secondary school, can I offer English in Literature at A-Level?

Yes, you may offer Literature in English at H1 or H2 level at A-Level, though a good command of the English language will be a strong advantage.

## **FAQ ON MOTHER TONGUE LANGUAGE (MTL)**

### **1. Can a Pre-University student be exempted from the Mother Tongue requirement at the GCE A-Level Examination?**

The Mother Tongue Language (MTL) policy requires all students (including foreign students) to offer MTL. Students exempted from the Mother Tongue Language at the GCE O-Level Examination will be exempted from the Mother Tongue Language at the GCE A-Level Examination. Students who have been approved for exemption from taking a Mother Tongue Language or taking another language in place of an official Mother Tongue Language are deemed to have met the Mother Tongue threshold requirements for university admission. For conditional admission, re-sitting for the MTL at O-Level is still required.

### **2. If my child has been granted approval to offer non-Tamil Indian Languages or foreign languages at GCE O-Level, can he/she continue to offer the same language at GCE A-Level?**

H1 non-Tamil Indian Language (Bengali, Gujarati, Hindi, Punjabi and Urdu) or H1 Foreign Language (French, German, Japanese) may be taken in lieu of MTL. Students who have been granted approval to offer a Non-Tamil Indian language or a Foreign Language in lieu of Mother Tongue at GCE O-Level, will continue to offer the same language at GCE A-Level.

Students who offer **Thai/Burmese** in lieu of Mother Tongue Language at GCE O-Level are required to apply for **exemption** from MTL as these subjects are **Not Offered** at GCE A-level.

### **3. Can my child offer Mother Tongue B at GCE A-Level?**

Students who offer MTB at GCE O-Level or scored D7 and below in the GCE O-Level MTL Exam, may offer MTB at GCE A-Level. MTB is **NOT** a H1 or H2 level subject. Performance in the MTB is indicated as Merit, Pass or Ungraded. No consideration will be given in the computation of university admission score.

### **4. If my child has already obtained a pass in O-Level Higher MTL and does not wish to do H1 MTL, can he/she offer another subject in lieu of H1 MTL?**

Students need not take the H1 MTL Examination if they have obtained a D7 or better in Higher MTL at O-Level as they would be deemed to have fulfilled the MTL requirement. However, as MTL is an integral part of the A-Level curriculum, H1 MTL cannot be replaced with another subject, with the exception of H2 Mother Tongue Language and Literature (H2 MTLL).

### **5. My child has already been exempted from offering Mother Tongue Language in secondary school. Do I have to re-apply for Mother Tongue exemption when he/she is promoted to Pre-University?**

No, you need not re-apply for his Mother Tongue exemption when your child is promoted to Pre-University. Your child will continue to be exempted from offering Mother Tongue.

### **6. Is Mother Tongue Language included in the computation of the University Score?**

Mother Tongue Language (MTL) may be included in the computation of the University Admission Score. The **better of the two scores** (i.e. with and without MTL) will be the University Admission Score of the candidate. As such, candidates are strongly encouraged to provide their MTL grade if they have taken the exam. Please refer to Pg 8 on the University Admission Score Illustration.

## 7. Can my child apply for university admission under the Mother Tongue Language Bonus Points (MTLBP) scheme?

Students who have done well in their H1 MTL, H1 GSC or H2 MTLL at the GCE 'A' level examination are eligible for MTL bonus points for MTL related courses in the local University.

E.g. for NUS admission, if your child has done well in his/her Higher Mother-Tongue Language (MTL) subject (Chinese, Malay or Tamil) or MTL subject (Chinese, Malay or Tamil) at the A-Level Examination, he/she will be eligible for MTL Bonus Points (MTLBP) to pursue the following MTL-related subject concentrations under the Arts and Social Sciences course in NUS:

- Chinese Language or Chinese Studies
- Malay Studies
- South Asian Studies

The following MT bonus points will be awarded:

- a) Two bonus points for applicants who have passed H2 MTLL;
- b) One bonus point for applicants who obtained an A grade in H1 MTL;
- c) One bonus point for applicants who obtained at least a B grade in H1 General Studies in Chinese; and
- d) Students offering any combinations of MT-related subjects are allowed to accumulate the MT bonus points allocated for each subject, including a combination of H1 MTL and H2 MTLL.
- e) The cap on bonus points for MT will be three.

The following table shows the MT bonus points awarded.

Subject	MT Bonus Points
H2 MT Language & Literature	2 points for a pass
H1 MT Language	1 point for an A
Cap of MT bonus point	3 points

## FAQ ON ARTS

### 1. I have not read Art or Design & Technology at O-Level, can I offer H2 Art at A-Level?

Yes, there are no prerequisites to the A-Level Art programme in MI.

### 2. I have not read History or Geography at O-Level in Secondary school, can I offer History or Geography at A-Level?

Yes, you may offer History or Geography at A-Level, though a good command of the English language will be a strong advantage.

### 3. Can I offer both H2 History and H2 Geography at A-Level?

Currently, the Institute does not offer such a combination. Students who are interested to offer both subjects can opt for H1 History and H2 Geography, provided they meet the contrasting subject requirement.

## **FAQ ON COMMERCE**

### **1. I have not read Principles of Accounts at O-Level in Secondary school, can I offer H2 Principles of Accounting at A-Level?**

O-Level Principles of Accounts is not a prerequisite for A-Level Principles of Accounting. A-Level Accounting covers more depth even for similar topics covered in O-Level. Students who have done O-Level Accounting may be at an advantage in early PU1. However, if they are not consistent and diligent, they will have difficulty catching up later and might lose out to students who have not done O-Level Accounts.

### **2. Am I given priority admission to Accountancy and Business faculty in the universities if I have read Commerce subjects at A-Level?**

The admission into Accountancy and Business courses in the local universities is based on merit, with the prerequisite that the student must pass at least H1 Mathematics. Students who have studied A-Level Commerce subjects are not given priority for the admission.

## **FAQ ON SCIENCE**

### **1. Can I offer an A-Level Science subject if I did not read a corresponding O-Level Science subject?**

The syllabus of a science subject at the A-Levels has been designed to build on and extend the content coverage at O-Level. Students are expected to have knowledge and understanding of the subject at O-Level, either as a single subject or as part of a balanced science course. Assumed knowledge from the corresponding Science subject at O-Level will not be taught but is needed in the course of learning the A-Level Science syllabus. Students without the assumed knowledge will be required to bridge the knowledge gap during the course of study on their own.

### **2. How is an A-Level Science subject different from an O-Level Science subject?**

A-Level Science subjects are pure science subjects. The topics learned at A-Level are a continuum from O-Levels pure sciences. However, at A-Level, a higher level of process skills and deeper appreciation of the scientific theories and concepts are required. Many a time, students are required to apply learned concepts in any given situations, instead of regurgitation or memorisation of facts. Many O-Level pure science students expressed that the A-Level subject requirement is a quantum jump in comparison to O-Level, it will be even more so for students who had offered only combined science.

### **3. What is the science practical assessment like?**

Students offering H2 Science subjects from 2016 onwards will sit for the Science Practical Exam (Paper 4), which replaces SPA (School-based Practical Assessment). Paper 4 is designed to assess students' competency in practical skills which can be realistically assessed within the context of a formal practical assessment. Students are assessed in the following skill areas: planning (P), manipulation, measurement and observation (MMO), presentation of data and observations (PDO) and analysis, conclusions and evaluation (ACE).

### **4. Should I choose Science course because the subject combinations offer me a wider option in the choice of university courses?**

University admission is based on the A-Level University Admission Score, the higher the UAS, the better the chance a student has in admission. Hence, the most important consideration would be if the subject combination allows you to get the highest possible A-Level UAS. A pre-university Science Course student with low A-Level grade points will have very few options in local university admission.

## **FAQ ON MATHEMATICS**

### **1. Does Mathematics have to be one of my 4 content-based subjects?**

All Millennia Institute students, regardless of them belonging to the Arts, Commerce or Science stream, must offer either H1 Mathematics or H2 Mathematics. Mathematical concepts and reasoning skills are required for the vast majority of university courses. For instance, statistical methods taught in H1 Mathematics are necessary for university courses in business and social science.

### **2. What is the difference between H1 Mathematics and H2 Mathematics?**

H1 Mathematics provides students with mathematical concepts and skills and basic statistical methods to support their university studies in business and social sciences, while H2 Mathematics prepares students for tertiary studies such as mathematics, sciences, engineering and other related disciplines where a good foundation in mathematics is required.

Hence, H2 Mathematics is significantly more abstract and demanding than H1 Mathematics, and students offering H2 Mathematics are expected to not only understand concepts more deeply, but also be able to apply them appropriately in a wider variety of contexts.

The following table compares the major content areas in H1 and H2 Mathematics:

<b>H1 Mathematics</b>	<b>H2 Mathematics</b>
1. Functions and Graphs 2. Calculus 3. Probability and Statistics	1. Functions and Graphs <b>(with more abstract treatment of functions such as concepts like domain and range, as well as additional concepts such as graphs defined parametrically and transformations of graphs)</b> 2. <b>Sequences and Series</b> 3. <b>Vectors</b> 4. <b>Introduction to Complex Numbers</b> 5. Calculus <b>(includes extension of differentiation and integration from O-Level Additional Mathematics, with additional techniques and applications, such as power series and differential equations)</b> 6. Probability and Statistics

### **3. I have not read Additional Mathematics at O-Level in Secondary school, can I offer H2 Mathematics at A-Level?**

Yes, you may offer to read H2 Mathematics at A-Level, though Additional Mathematics provides you with the necessary assumed knowledge and skills to read H2 Mathematics and serve as a strong advantage. Students who choose to offer H2 Mathematics without having read Additional Mathematics at O-Level are required to bridge the knowledge gap during the course of study on their own. The assumed knowledge from Additional Mathematics will not be taught during the course of learning the A-Level H2 Mathematics syllabus.

## University Admission Score Illustration for Autonomous University

The maximum points for H2 and H1 subjects are 20 and 10 respectively.

**From 2026, in the application to the AUs, only three H2 content-based subjects and H1 GP will count towards the UAS by default. The revised UAS will be computed out of a total of 70 points.**

H1 Mother Tongue Language (MTL) and H1 content-based subject may be included in the computation of the University Admission Score (UAS). If a student presents the results slip for his/her best MTL Subject score (e.g., H1 MTL or 'O' Level Higher MTL) and H1 content-based subject, the University will include the subjects in the computation of the UAS if they raises his/her score.

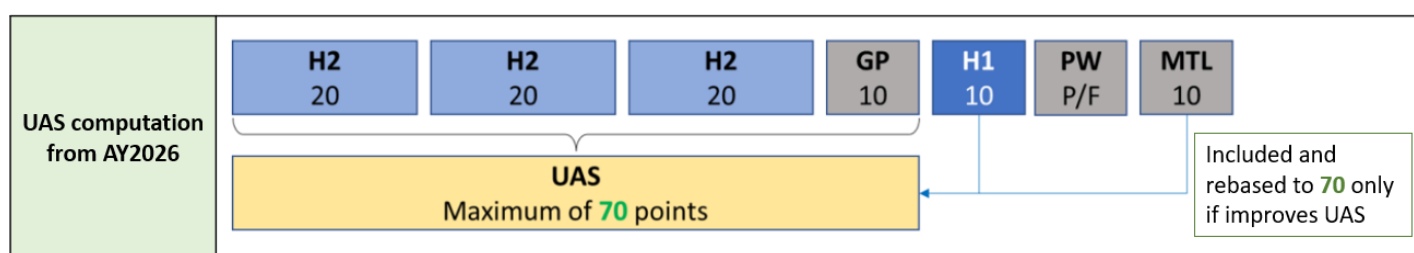
Though it is not mandatory to include the H1 content-based subject and MTL results in the computation of the UAS, a student is still required to meet the minimum requirements for H1 Content Subject and MTL.

Students are required to obtain a "Pass" grade in Project Work for admission to the AUs.

### Computation for University Admission Score

H2 Subjects: A=20, B=17.5, C=15, D=12.5, E=10

H1 Subjects: A=10, B=8.75, C=7.5, D=6.25, E=5



### **Example:**

Student scores **C** for H1 General Paper, **BCC** (for all H2 subjects), **B** for H1 Content Subject and **A** for H1MTL.

UAS Computation:

H1GP, 3 H2 Subjects	H1GP, 3 H2 Subjects, H1 Content	H1GP, 3 H2 Subjects, H1 Content, H1 MTL	H1GP, 3 H2 Subjects, H1 MTL
7.5+17.5+15+15 = 55	$[(55+8.75)/80]*70$ = 55.78	$[(55+8.75+10)/90]*70$ = <b>57.36</b>	$[(55+10)/80]*70$ = 56.88

➔ Since the rebased UAS with H1 MTL and H1 Content Subject is better than the UAS without H1 MTL, the better score (57.36) is used.



Subject Combination 2024				
Code	H2 Subjects			H1 Content-Based Subject
A01	ELIT	GEO	ART	MATH
A02	ELIT	GEO	ECONS	MATH
A03	ELIT	HIST	ART	MATH
A04	ELIT	HIST	ECONS	MATH
A05	ELIT	HIST	MOB	MATH
A06	ECONS	GEO	MTLL	MATH
A07	ECONS	HIST	MTLL	MATH
AC01*	ECONS	GEO	MOB	MATH
AC02*	ECONS	HIST	MOB	MATH
AC03*	ECONS	ELIT	MOB	MATH
C01	MOB	ECONS	MATH	HIST/ELIT/BIO/CHEM/PHY
C02	MOB	ECONS	PAA	MATH
C03	MOB	PAA	MATH	ECONS/HIST/ELIT/BIO/CHEM/PHY
C04	PAA	ECONS	ELIT	MATH
C05	PAA	ECONS	MTLL	MATH
CS01#	PAA	ECONS	MATH	HIST/ELIT/BIO/CHEM/PHY#
S01	MATH	BIO	ECONS	HIST/ELIT/CHEM/PHY
S02	MATH	CHEM	ECONS	HIST/ELIT/BIO/PHY
S03	MATH	CHEM	MTLL	ECONS/HIST/ELIT/BIO/PHY
S04	MATH	CHEM	PAA	ECONS/HIST/ELIT
S05^	MATH	CHEM	BIO	ECONS/HIST/ELIT
S06^	MATH	CHEM	PHY	ECONS/HIST/ELIT
S07	MATH	PHY	ART	ECONS/HIST/ELIT/BIO/CHEM
S08	MATH	PHY	ECONS	HIST/ELIT/BIO/CHEM
S09	MATH	PHY	MLL/ TLL	ECONS/HIST/ELIT/BIO/CHEM
S10	MATH	PHY	PAA	ECONS/HIST/ELIT
S11	BIO	PAA	ECONS	MATH
S12	CHEM	PAA	ECONS	MATH

PAA: Principles of Accounts MOB: Management of Business

**Note:**

\*AC01, AC02 and AC03 are offered to students in Arts and Commerce streams.

#CS01 is offered to students in Commerce and Science streams. Students in Science stream who choose to offer CS01 must choose H1BIO, H1CHEM or H1PHY as the H1 content-based subject.

^Students who wish to offer S05 or S06 must have the following assumed knowledge at GCE O-Level:

- Achieved at least C6 in both relevant Pure Science subjects at GCE O-Level **OR**
- Achieved at least C6 in one relevant Pure Science subject **AND** at least B4 in one relevant Combined Science subject at GCE O-Level **OR**
- Achieved at least A2 in one relevant Combined Science subject **AND** at least C6 in Additional Mathematics at GCE O-Level.