

### JC1 Subject Registration Briefing 5 February 2025 Mr Sandanam [Mr San] JC1 Year Head

# Lift Off

## Landing

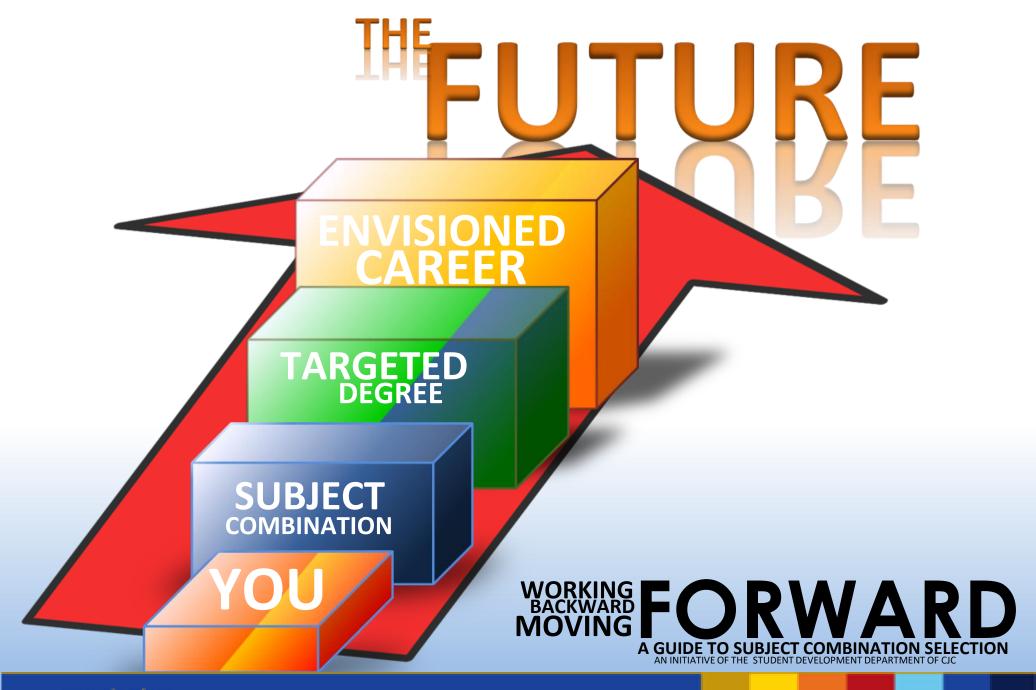


### **Outline of Presentation**

- Overview
- Decision-making Process
- Requirements & Criteria
- Subject Information
- Course Selection System



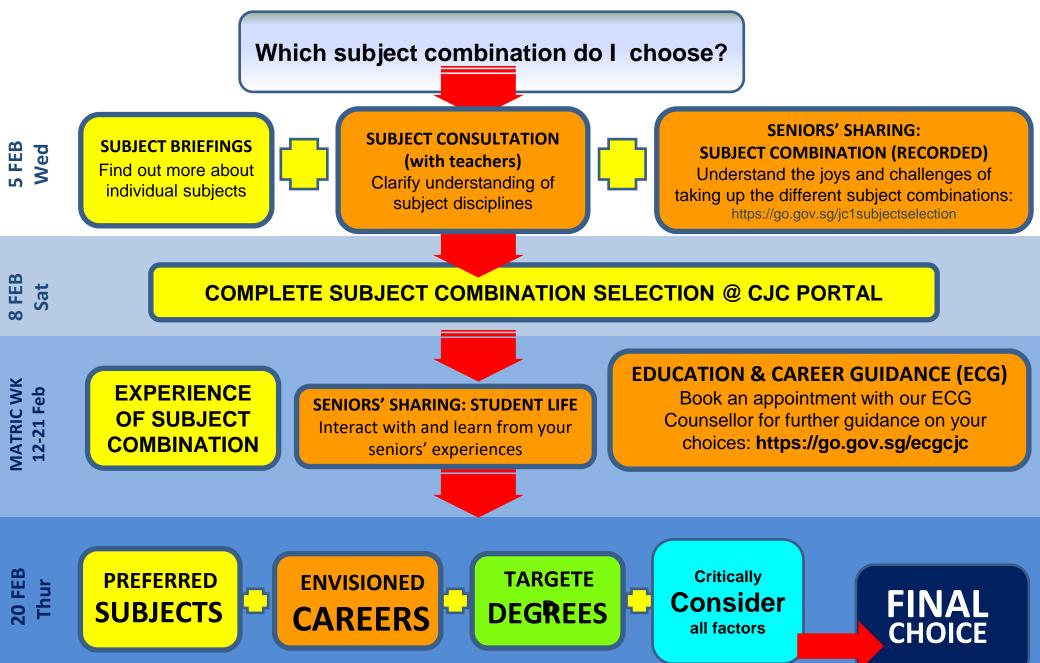




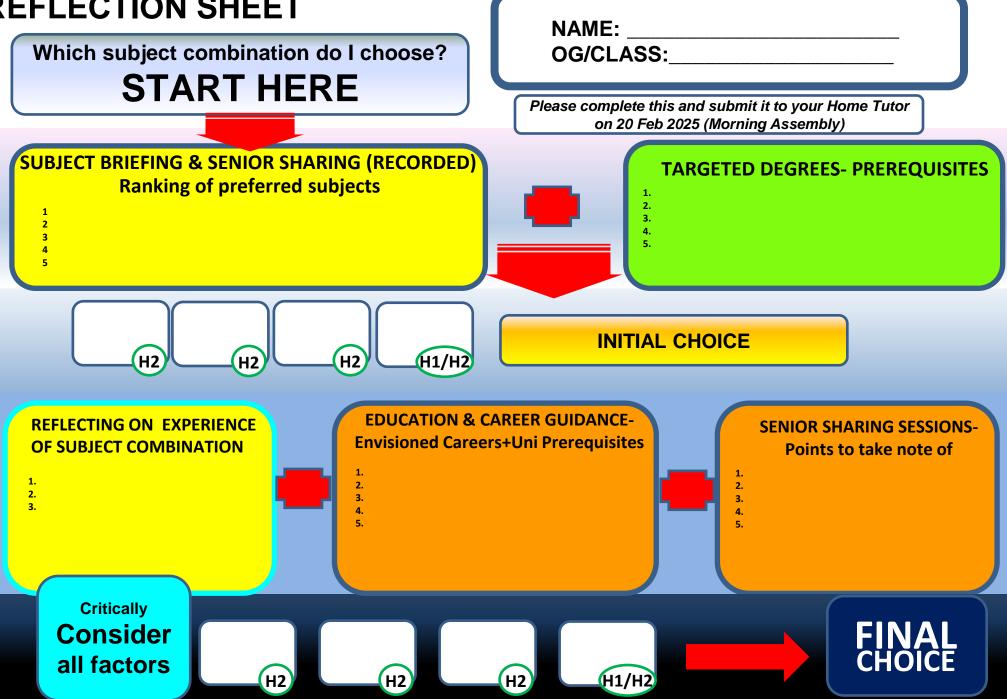


#### Making an Informed Decision

#### A ROADMAP TO SUBJECT COMBINATION SELECTION



#### **REFLECTION SHEET**

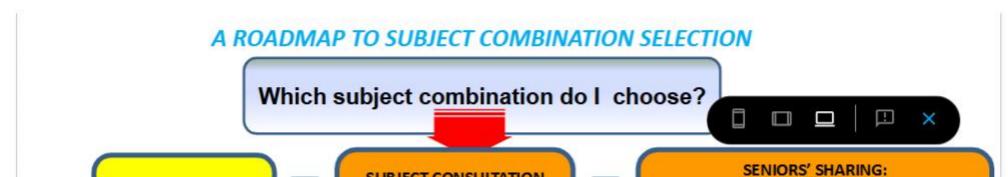




Use the resources in the Education & Career Guidance site to help you https://sites.google.com/moe.edu.sg/cjceducatio ncareerguidance/ecg-cjc



#### Choosing a Suitable Subject Combination



#### Begin with the End in Mind - (2) Checking Up University Course Requirements

Having identified potential careers of interest, consider the following:

1. Which University Course do I need to do to get there?

2. Which University (local or overseas) offers it?

- 3. Does my preferred University Course have prerequisite 'A' level subjects?
- Do not assume that you know what is the prerequisite 'A' level subject for your preferred course. (Eg. A"-level Biology is not a prerequisite for studying Medicine in the National University of Singapore. The requirement is actually H2 Chemistry + Either H2 Physics or Biology.)

#### Information on Local University Courses (Updated 2022)

The handbook below presents key 'Information on Local University Courses'. This document allows you to see what are the 'A' level subject requirements for your desired University Course. Further information and details can be obtained via the websites of the respective universities.

Information on Local University Courses

Explore the websites of the various local universities to find out the prerequisites of your possible degree choices



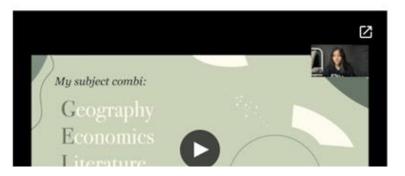
#### Seniors' Sharing Session (Recorded)

As part of the college's efforts to guide you in your selection of subject combination, we have invited some of your seniors from both the Arts and Science streams to share their experiences with you, including:

- Why they are pursuing this subject combination
- Key areas of learning
- Challenges they faced and how they have overcome these challenges

#### Listen to your seniors' sharing to learn more of their decisionmaking process in choosing their subjects

Sharing by Beatrice (H2 Geog, Econs, Lit, and H1 Math)



Sharing by Gwen (H2 Biology, Chemistry, Math, and H1 Econs)





## Requirements & Criteria

### **Requirements for A-Levels**

- Normal combination of subjects
  - 3 H2 and 1 H1 content-based subjects (at least one of which must be from a contrasting discipline)
  - H1 General Paper (GP) [over 2 years]
  - H1 MTL [examined in October/November]
  - Project Work (PW) [examined in October/November]
- Contrasting Discipline
  - Mathematics & Science: Biology, Chemistry, Physics, Mathematics
  - Humanities & the Arts: Economics, English Language & Linguistics, Geography, History & Literature

### **Example of Subject Combination**

Science:		Humaniti	Humanities:	
3 x H2 H1	Mathematics Physics Chemistry Economics (contrasting)	3 x H2 H1	Literature Economics Geography Mathematics (contrasting)	
		on Subjects: eral Paper PW MTL		

### **Stretch Options**

- Four H2 subjects (L1R5 raw score  $\leq$ 10): - 4 H2 + GP + PW + MTL
- H3 : Students may offer a H3 subject in J2 if they have the passion and aptitude and have done <u>CONSISTENTLY</u> well for the corresponding subject at H2 Level in JC1.
  - 3 H2 + H1 + GP + PW + MTL + H3 (in J2)
  - -4 H2 + GP + PW + MTL + H3 (in J2)
- Ignite Programme: CJC's Signature Programme deepening critical thinking and intellectual curiosity. Attend the briefing at 3.45pm in the PAC, if you are interested to know more.

### **Choosing your Subject Combination**

Please refer to the website via the link given below to guide you through the process of selecting your subject combination:

https://sites.google.com/moe.edu.sg/cjceducationcareerguidance/ecg-cjc

Namely, do take into consideration the following when deciding on your subject combination:

- Your level of interest in the subjects
- Your talents & aspirations
- The University Prerequisites of your possible degree choices
- Understand more by listening and speaking to your seniors and our Education & Career Guidance Counselor

### **Choosing your Subject Combination**

#### COMBINATION CHOICE

- Study requirements carefully
- Posting to a subject combination is subject to the student's knowledge and understanding of the relevant subject(s) at O-Level, the performance in the subject(s) and availability of vacancies

#### • ARTS or SCIENCE?

- Are you eligible for the subject?
  - From Science to Arts (*availability of vacancies, meets Arts COP & criteria*)
  - From Arts to Science (*availability of vacancies, meets Science COP* & *criteria*)

### **Choosing your Subject Combination**

To find out more about the subjects and programmes, please refer to the link below:

https://go.gov.sg/subjectinformation

This microsite also provides details of

- Subject Combinations
- College's Signature Programmes
- Department and Subject Information to give you an experience of the subject matter, complexity and learning approach of the subject

• The Indicative Grade Cut-off provides an indication of the lowest grade scored in the relevant O-Level subject by the majority of students who were offered the A-Level subject / combination in 2023/2024.

- Geography/History/Economics/Literature:
  - No prerequisite, <u>have interest</u> in the subject, be able to write well
- English Language & Linguistics (ELL):
  - Pass the selection test
  - Indicative Grade Cut-off is A2 for English Language
  - If offered, H2 ELL may be used to replace one H2 subject (except H2 Math) from the Arts Subject Combinations . H2 ELL can also be offered as the 4th H2 subject for Science Combinations
  - Attend the briefing at 3.30pm @ PAC

- H2 Math
  - Students who intend to offer H2 Math are assumed to have knowledge of Additional Mathematics at O-level
  - Indicative Grade Cut-off is B3 for Additional Mathematics
- H2 Physics
  - Students who intend to offer H2 Phy are assumed to have knowledge and understanding of Physics at O-level, either as a single subject or as part of a Combined Science course
  - Indicative Grade Cut-off is B3 for Physics or A2 for Combined Science (with Physics)

#### • H2 Chemistry

- Students who intend to offer H2 Chem are assumed to have knowledge and understanding of Chemistry at O-level, either as a single subject or as part of a Combined Science course
- Indicative Grade Cut-off is B3 for Chemistry or B3 for Combined Science (with Chemistry)
- H2 Biology
  - Students who intend to offer H2 Bio are assumed to have knowledge and understanding of Biology at O-level, either as a single subject or as part of a Combined Science course
  - Indicative Grade Cut-off is B4 for Biology or B3 for Combined Science (with Biology)

What if I did not take Additional Mathematics (Add Maths) at O-levels but intend to take H2 Maths?

- Placement is based on your prior knowledge of Add Maths and the performance in the subject at O-level.
- If you did not take Add Maths at O-Level, you are advised to sit for a readiness assessment to gauge your suitability for the subject. Should you have further questions, you can attend the briefing session @LT2, 3.45pm.
- H2 Maths requires strong algebraic skills, ability to deal with higher proportion of abstract symbols and applying problem solving skills.
- Need to consider carefully the rationale for studying H2 Maths

What if I do not meet the specific requirements because of certain circumstances?

- You may appeal for special consideration
- There will be a briefing **@LT2**, **3.45pm**.

What if I took only the O-Level Combined Science without any other Pure Sciences but intend to take a double Science subject combination?

- Placement is based on your prior knowledge of the relevant Science subject(s) and the performance in the subject(s) at O-level.
- The chances of you being offered a double H2 Science subject combination (e.g. H2 Chem & H2 Phy or H2 Bio & H2 Chem) will be low. Should you have further questions, you can attend the briefing session @LT2, 3.45pm.



#### Mother Tongue Language (MTL) Admin Matters



# All JC1 students are required to take H1MTL or MTB, <u>except</u> those who

- Are exempted from taking MTL (**approved by MOE**)
- Take <u>Foreign Languages</u> (i.e. *FL- H1 French/ German/ Japanese*) or <u>Non Tamil Indian</u> <u>Languages (NTIL) in-lieu of MTL (approved by MOE</u>)
- Obtained D7 or better in O-Level Higher MTL

As Burmese & Thai are not offered at A-level, <u>students who have been granted approval to take</u> <u>Burmese & Thai at O-level will have to apply for MT exemption at A level.</u> <u>Please submit the following to the General Office by 7 Feb 2025</u>: Parent's letter (addressed to Ms Lee Ting Ting, HOD/MTL, CJC). Please state your name and contact number in the letter.

First MTL lesson 12 Feb 2025 — <u>ALL JC1</u> students must attend (report to PAC according to your class timetable)



### H1 FL/NTIL in-lieu-of MTL

•All students taking Foreign Languages/Non-Tamil Indian Languages MUST have applied for and been given formal MOE approval for this.

•All JC1 students taking H1 FL (French/ German/ Japanese) and NTIL (Bengali/ Hindi/ Punjabi/ Urdu /Gujarati) will <u>have to register for the FL/NTIL classes at the respective language centres</u> (where applicable).

•For students who attended Sec 4 French/ German/ Japanese (in-lieu of MTL or as 3rd Lang) classes at MOELC, You are reminded to refer to MOELC website for instruction on how to register (Under Home Page " ADMIN MATTERS"-JC REGISTRATION). You would have already been advised to approach MOELC directly for this within the given period.

#### H1 FL in-lieu-of MTL



Students who are NOT studying in MOELC/ waiting for MOELC registration outcome:

•You are expected to make the arrangements to study the approved language privately (e.g. private language centers or private tutors).

•You must provide the relevant details and evidence to HOD/MTL (e.g. enrolment slip for the private language centre).

Those who wish to apply for a place in MOE Language Centre (MOELC)\*: You are to submit the registration of interest through College. Please submit the following to the General Office by 6 Feb 2025: Parent's letter (addressed to Ms Lee Ting Ting, HOD/MTL, CJC). Include your name and contact number

\*Admission to MOELC is subject to vacancy and the results of a Readiness Test (if it is conducted).

in the letter.

#### Reminders



- Foreign Languages & NTIL students: All students are to submit the relevant information required to HOD MTL.
   HOD MTL will contact you soon about it.
- <u>First-time applications for MTL Exemption / MTB\*:</u>

Application will be done through College. Please submit the following to the General Office **by 7 Feb 2025**:

- Parent's letter (addressed to Ms Lee Ting Ting, HOD/MTL, CJC). Please state your name and contact number in the letter.
- Copies of school results (Sec 3 and 4), PSLE and 'O' Level certificates and other relevant documents where applicable (e.g. medical report).

#### \*Do take note that such applications need to fulfil the MOE criteria and requirements.

#### Reminders



#### Any enquiries/clarifications

- Ms Lee Ting Ting HOD/MTL (Ext 39) (lee\_ting\_ting@moe.edu.sg)
  - Mr Tan Lye Huat SH/CL (Ext 621) (tan\_lye\_huat@moe.edu.sg)





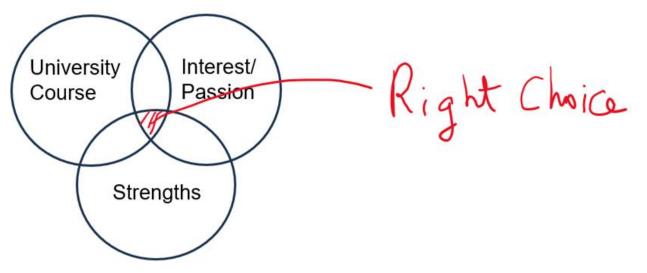
### Mathematics

#### 5 Feb 2025



#### Should I take H1 or H2 Maths?

- This should not be the first question you ask.
- Certainly, you should not follow the crowd or listen to what your parents want you to choose.





If you need advice, please visit our subject consultation booth later at block J classroom at J3-05 from 3.45pm onwards

#### For students taking H2 Maths: Assumed Knowledge notes (Contents from 'O' Levels)

#### **Topics**

- 1.The Number System
- 2. Quadratic Functions and Equations
- 3.Factor Theorem
- 4. Surds and Indices
- 5. Exponential and Logarithmic Functions
- **6.**Partial Fractions
- 7.Trigonometry
- 8.Differentiation and Integration

### **Tutorial to be attempted!**



Purchase from Printing Shop as a OG from 7 Feb





TI-84 Plus CE Python

Graphing Calculator by Texas Instruments

### GC Booth Sales

- > Feb 12, 2025 (Wed) / 10:30 am to 3:30 pm
- Booth Venue : PAC Cave area
- \$178/- per set inclusive of 9% GST. Price valid only at above booth sales.
- Payment <u>by cash</u> in <u>exact money notes</u>. (coins will not be accepted).
- Paynow accepted but phone must have data and do scan QR code and get ready before your turn to avoid delay.
- For students on/applying for MOE FAS, please do not buy first as you will be able to loan a temporary set and subsequently buy at subsidized rate.



## For those who intend to appeal for special consideration to study H2 Maths...

Please proceed to LT2 for an important briefing at 3.45pm

Access to Slides

<u>**1** representative per OG</u> to scan this QR code and share with the OG, as OGLs will not be sending it to you.



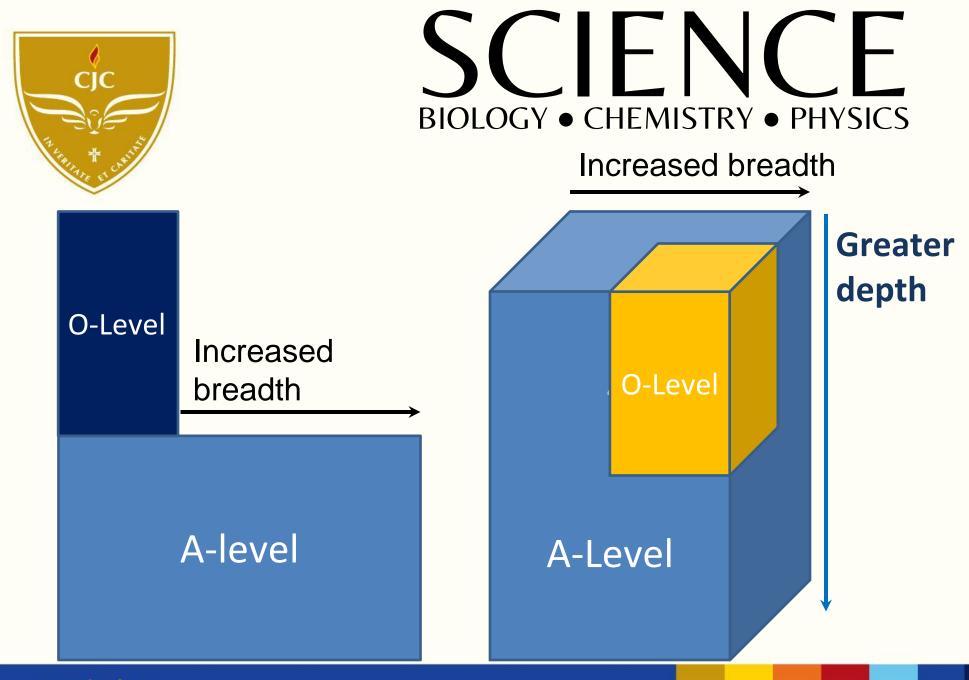






CATHOLIC JUNIOR COLLEGE SCIENCE DEPARTMENT

# SCIENCE BIOLOGY • CHEMISTRY • PHYSICS





#### H2 & H1 Science Scheme of Assessment

 Compared to O-level Syllabus, there is an increase in demand in terms of breadth (more topics) & depth (complexity of topic) for the A-level H2 and H1 Science Syllabus

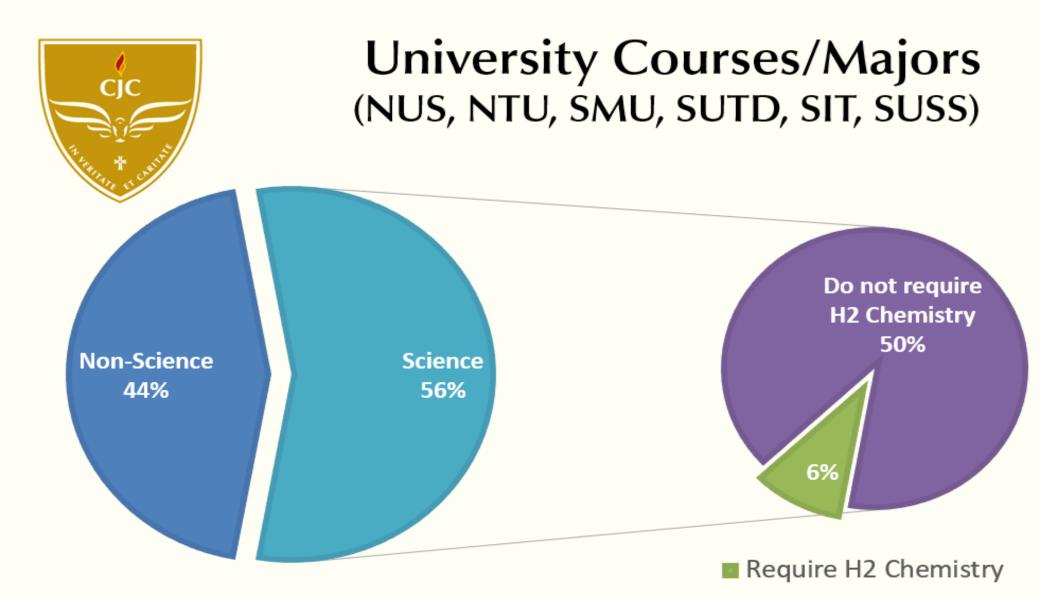
#### H2 Science

Paper 1 (MCQ) 15% Paper 2 (Structured) 30% Paper 3 (Structured) 35% Paper 4 (Practical) 20%

#### H1 Science

Paper 1 (MCQ) 33% Paper 2 (Structured) 67% NO PRACTICAL EXAM

\*Strategic Use of H1 (Need for consistency)



#### GCE A-Level H2 Chemistry 2023/P2/Q4



A reaction that goes to completion can be represented as shown in equation 2.

equation 2

4

 $A+B \rightarrow P+Q$ 

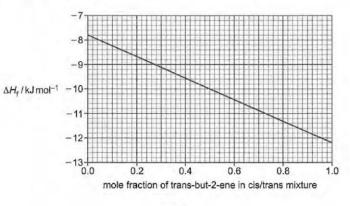
For this reaction, the value of the standard Gibbs free energy change can be calculated from standard Gibbs free energy change of formation values for the reactants and products.

 $\Delta G^{\mathfrak{S}} \text{ for equation } 2 = (\Delta G^{\mathfrak{S}}_{\mathsf{f}(\mathsf{P})} + \Delta G^{\mathfrak{S}}_{\mathsf{f}(\mathsf{Q})}) - (\Delta G^{\mathfrak{S}}_{\mathsf{f}(\mathsf{A})} + \Delta G^{\mathfrak{S}}_{\mathsf{f}(\mathsf{B})})$ 

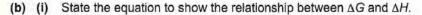
#### where $\Delta G_{\text{fp}}^{e}$ represents the standard Gibbs free energy change of formation for P. MAKE AN INFORMED CHOICE

Under certain conditions, cis-but-2-ene isomerises into trans-but-2-ene at 298K. Eventually a dynamic equilibrium is reached, as shown in equation 3.

Fig. 4.2 shows the enthalpy changes of formation values,  $\Delta H_{\rm fr}$  for various mixtures containing cis- and trans- isomers of but-2-ene at 298 K.







- (ii) Use Fig. 4.1 and Fig. 4.2 to calculate ∆S for equation 3. Assume that the reaction goes to completion.
- (iii) Use your answer to (b)(i) to suggest why Fig. 4.1 is a curve rather than a straight line.

equation 3

Fig. 4.1 shows the  $\Delta G_{f}$  values for various mixtures containing different proportions of the cis- and trans- isomers of but-2-ene at 298 K.

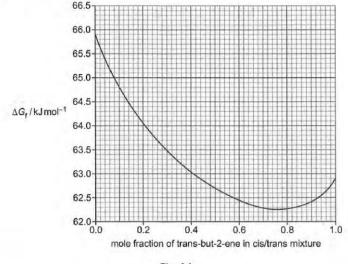


Fig. 4.1



## **Subject Information Talk**

# Economics



Econs= Social Studies



#### What Economics is not?

Econs= Common sense, I can just smoke.....



Individuals: We look at how consumers like you and me, and producers make choices and the impacts of their choices.

Societies: We look at how governments make policy choices and the impacts of their choices.

Economics is the study of how individuals and societies make choices to allocate scarce resources in order to satisfy their needs and wants.

#### Why do we look at choices?

We want everything, but we can't have everything So nature forces us to make choices... What to have, what to give up... So, making the correct choice is very important in your life!

#### 



#### The Decision Making Framework in the Economics Syllabus



# What will you learn about in Economics?



How does the government achieve economic stability? How do wars pandemics and wars impact the economy?

How do consumers make choices? Can producers influence consumers' decisions?

Is a tax on cigarette going to be effective in improving welfare?



MICRO MACRO



#### E-scooter ban on footpaths to extend to all motorised PMDs under amendments to Active Mobility Act



#### Real-World Microeconomic Issues



Car COE prices hit new record; premiums for larger cars cross S\$140,000 for the first time



#### Real World Macroeconomic Issues



# 1. Global economic growth will slow in 2024, say banks

Global economic growth will slow even more in 2024 due to high interest rates, increased energy prices and a slowdown in the world's top two economies, a series of leading banks

## US-China trade tensions regain momentum

say.



#### 9570 H2 Economics Content Coverage

## Micro & Macro



Theme 1: Central Problem
 of Economics

#### Theme 2: Markets

- Price Mechanism and Its Applications
- Firms and Decisions
- Market Failure

#### Theme 3: The National and International Economy

- Introduction to Macroeconomics
- Macroeconomic Aims and Policies
- Globalisation and the
   International Economy



#### 8843 H1 Economics Content Coverage

## Micro & Macro



- Theme 1: Central Problem
   of Economics
- Theme 2: Markets
  - Price Mechanism and Its Applications
  - Firms and Decisions
  - Market Failure

- Theme 3: The National and International Economy
- Introduction to Macroeconomic Analysis
- Standard of Living and Macroeconomic Indicators
- Macroeconomic Issues and Macroeconomic Policies
- Globalisation and the
   International Economy



#### H2 vs H1 Economics Assessment Format

H2

- Paper 1: Case Study Questions (40%)
  - 2 CSQs (30m each)
  - 2 hr 30 min
- Paper 2: Essays (60%)
  - 3 Essays (25m each)
  - 2 hr 30 min

## H1

- Paper 1: Case Study Questions (100%)
  - 2 CSQs (40m each)
  - 3 hr

#### MAIN DIFFERENCES BETWEEN H1 & H2:

- Content Coverage
- Assessment Format
- Component Weighting



#### Economics Case Study Questions

#### Question 2: The Impact of Foreign Direct Investment (FDI) Flows in South-East Asia

#### Extract 5: Singapore in world's top 20 for trade growth potential

Singapore continues to show substantial potential for trade growth, according to a new study. The city-state made it to 16th place in the Standard Chartered Bank's new Trade20 Index, which is a list of the 20 global markets that are most rapidly improving their potential for trade to grow.

#### Table 1: The Trade20 Index

1.	Côte d'Ivoire	6. Vietnam	11. Hong Kong	16. Singapore
2.	India	7. Indonesia	12. Russia	17. Switzerland
3.	Kenya	8. Thailand	13. Ghana	18. Chile
4.	China	9. Oman	14. Sri Lanka	19. Turkey
5.	Ireland	10. UAE	15. Bahrain	20. Philippines

This study examined 66 economies, analysing changes across three indicators: economic dynamism, trade readiness and export diversity. In contrast to most traditional trade indices that are based on a market's present performance, the Trade20 Index captures changes over time to reveal the markets that have seen the most improvement in the last decade. This shows the economies where recent positive developments may point to strong trade growth potential.

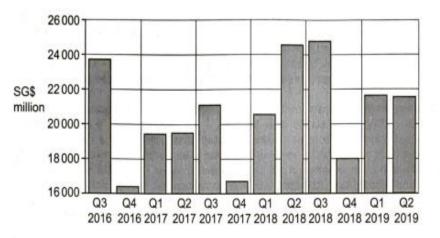
- Economic dynamism refers to whether a country is developing and innovating in new industries. It is measured by the flow of inward foreign direct investment (FDI), export volume growth and the growth of gross domestic product (GDP).
- Trade readiness refers to whether a country has the foundations to support future trade growth. This is measured by factors such as the quality of infrastructure and the ease of doing business.
- Export diversity refers to the range of goods and services produced and exported. It is
  measured by the number of different types of products exported.

Singapore's ranking in the index was largely due to its economic dynamism, because of increasing levels of inward FDI. The Singapore government has been expanding the scope of its free trade agreements to keep pace with global developments. In addition, digitalisation is improving Singapore's information and communications sector, while infrastructure improvements are the focus of investment activity. The city-state is implementing long-term policies that will put it in a strong position to cope with the uncertainties of escalating global trade tensions and it is also introducing new technology such as the Networked Trade Platform that will further improve the ease of doing business.

Elsewhere in South-east Asia, Vietnam has substantial trade growth potential. This is because it has engaged in liberalising its economy. It performed particularly well with regard to its trade readiness. This was due to improvements to infrastructure and the ease of doing business.

Both Singapore and Vietnam are being driven by export-oriented manufacturing, growing trade between regions, strong domestic demand, close trading ties with China, and healthy job markets.

#### Figure 3: Singapore's Current Account Balance, July 2016 to July 2019



Source: tradingeconomics.com | Statistics Singapore

- (a) State what is meant by foreign direct investment (FDI) and identify the component of the balance of payments accounts in which FDI is recorded. [2]
- (b) (i) Explain the opportunity cost of investment expenditure that uses domestic funds. [2]
  - Using a production possibility curve diagram, show the impact of infrastructure improvements in a country such as Singapore or Vietnam.
- (c) Explain how the current account of the balance of payments of Singapore or Vietnam is likely to be affected in the long run by increased FDI. [6]
- (d) Discuss whether broad export diversity or specialisation in a narrow range of exports is more likely to be beneficial for an economy engaged in international trade. [8]
- (e) Discuss whether a government should encourage domestic investment rather than investment from external sources to improve the standard of living. [10]

[Total: 30]



#### Economics Essay Questions

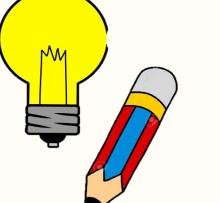
A firm in Singapore is facing an increase in demand for its goods which has led to an increased demand for labour. Its demand for labour is also inelastic. In addition, large numbers of its workers born in the 1960s ('baby-boomers') have been retiring, reducing the number of workers available to the firm.

- (a) With the aid of a diagram, explain how this firm's total expenditure on its workforce will have changed as a result.
- (b) Discuss whether making changes to the foreign worker levy is likely to be the most effective way the Singapore government can address the labour shortages experienced by such firms. [15]

In 2017, the annual rate of inflation in Singapore was significantly lower than the average rate for Southeast Asia.

- (a) Explain a possible demand side reason and a possible supply side reason for a rise in the rate of inflation. [10]
- (b) Assess whether policies designed to prevent a large and continuing rise in inflation in Singapore are the most appropriate policies for all economies. [15]





## Skills and Qualities Required



Able to think critically and write coherently

Comfortable with interpreting data Self Directed and willing to work hard

Intellectual Curiosity about Global Issues

Willingness to read beyond lecture notes

DAILY NEW



#### Follow us on Instagram



#### @cj.econs



#### Admin Instructions



- Lectures will start at Week 6 (Matriculation Week)
- You are to collect your lecture notes from the print shop (near the canteen) before the first lecture \$1.55 per student
- One rep per class will collect money from the class and pay the print shop upon collection. Let the print shop auntie know how many copies your class requires.
- The notice for notes collection will be made via morning announcements. So please listen carefully.







#### **CJC Literature Program Overview**

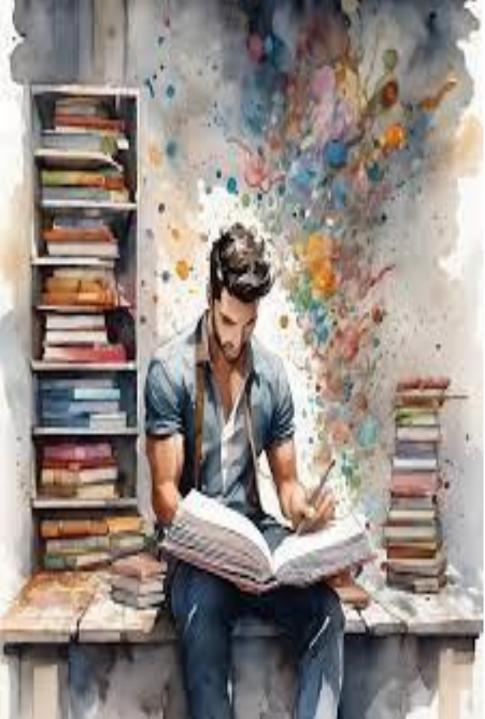


## OUTLINE

- What we don't do
- What we really do
- What it means for you



# Not a reading circle Not all about "The feels" Not about speculation



- What we <u>really</u> do:
- We <u>analyse</u> and <u>evaluate</u> the <u>literary merit of</u> <u>texts</u>, focusing on the <u>craft</u> of literary fiction.
- We ask: how does
   Ianguage, style, and form
   contribute to literary
   effects? How does this
   determine the meaning
   making process in
   reading?

#### **Example: The Next Village by Franz Kafka**



My grandfather used to say: "Life is astoundingly short. To me, looking back over it, life seems so foreshortened that I scarcely understand, for instance, how a young man can decide to ride over to the next village without being afraid that -- not to mention accidents -- even the span of a normal happy life may fall far short of the time needed for such a journey."

## WHO should Study Lit?

- NO Pre-requisite.
- It Helps...
  - if you enjoy reading fiction;
  - have a love of the written word
  - have a good command of the English language.



## Texts to be studied:

- H1 and H2 Lit students
- Paper 1: Reading Literature
- Unseen Poetry:
  - H1 single poems, H2 comparison Poetry
- Text 1 [Prose]:
  - 'Jane Eyre' by Charlotte Bronte
- Text 2 [Drama]
  - 'The Changeling' by Thomas Middleton and William Rowley

- H2 LIT students only
- Paper 3: Postcolonial Literature
- Unseen Prose and Drama
- Postcolonial Literature comparison of 2 texts:
  - Anthills of the Savannah by Chinua Achebe
  - Wide Sargasso Sea by Jean Rhys
- Pre-20<sup>th</sup> century Literature:
  - Heart of Darkness by Joseph
     Conrad