ECONOMICS SYLLABUS Pre-University H2

Implementation starting with 2016 Pre-University One Cohort



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Ministry of Education SINGAPORE

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1. INTRODUCTION

1.1 Desired Outcomes of Education and Learning of Economics in Singapore

The learning of Economics is aligned with the Desired Outcomes of Education, embodied by the following attributes:

- a **confident person** who has a strong sense of right and wrong, is adaptable and resilient, knows himself, is discerning in judgment, thinks independently and critically, and communicates effectively;
- a **self-directed learner** who questions, reflects, perseveres and takes responsibility for his own learning;
- an **active contributor** who is able to work effectively in teams, is innovative, exercises initiative, takes calculated risks and strives for excellence; and
- a **concerned citizen** who is rooted to Singapore, has a strong sense of civic responsibility, is informed about Singapore and the world, and takes an active part in bettering the lives of others around him.

Through the application of economic concepts, theories and principles, students develop the capacity to assess the role of economic agents in the allocation of scarce resources and adopt multiple perspectives in understanding real-world economic issues. Students recognise trade-offs and consequences that result from decision-making to arrive at well-reasoned decisions. Students thus develop a set of knowledge, skills and values that encourages them to take an active interest in the domestic and global economy as contributing and concerned citizens.

1.2 21st Century Competencies in A-Level Economics

Beyond imparting the prescribed subject knowledge and skills, the A-Level Economics education also supports students' development of important competencies necessary for them to thrive in the 21st century. In addition, students need to be equipped with a range of life skills and develop key social and emotional competencies that will enable them to achieve personal mastery and relate well to others. Most importantly, all learning must be anchored in enduring values. A detailed elaboration of the framework for the 21st Century Competencies (21CC) can be found at the following website by the Ministry of Education: http://www.moe.gov.sg/education/21cc/.

The A-Level H2 Economics syllabus provides multiple opportunities for the development of 21CC in the three key domains of **Civic Literacy, Global Awareness and Cross-Cultural Skills; Critical and Inventive Thinking**; and **Communication, Collaboration and Information Skills**. Some examples are:

• The decision-making approach allows students to develop critical and inventive thinking skills in managing the complexities and ambiguities of contemporary economic issues. These skills align closely with the **Sound Reasoning and Decision-Making** domain within the **Critical and Inventive Thinking** competency.

- There are multiple opportunities for students to develop Civic Literacy and Global Awareness
 competencies through the discussion of national and global issues. Students examine trends
 and issues that affect socio-economic development, and consider their implications on public
 policy decisions and trade-offs for Singapore and the global economy.
- The discussion of real-world issues provides a platform for students to use economic data presented in different forms to make valid inferences. They also learn to evaluate the reliability of the information given. The skills of identifying, synthesising and evaluating information align closely with the Management of Information domain within Communication, Collaboration and Information Skills.

1.3 Value of Economics in the A-Level Curriculum

Economics is a social science that studies how economic agents – consumers, producers and governments – allocate limited resources in order to satisfy unlimited wants. It provides students with a specific Economics lens to examine economic and socio-economic issues.

The study of A-Level Economics aids the development of 21CC in students, which prepares them for a dynamic and interconnected world. They gain the capacity to assess the roles of various economic agents in the allocation of scarce resources, thus deepening their awareness and understanding of real-world economic issues at the individual, national and international levels. Through the study of A-Level Economics, students recognise and develop multiple perspectives in understanding real-world economic issues. By critically examining and reflecting on these issues in a reasoned and informed manner while taking into account the perspectives of various economic agents, students are able to arrive at reasoned conclusions and informed decisions. In addition, students develop the ability to recognise the trade-offs and consequences, both intended and unintended, that result from decisions made at the individual, national and international levels.

The A-Level Economics curriculum lends itself well to values education through the discussion of real-world economic issues, and these opportunities can be seized to develop in students the values of respect, responsibility, resilience, integrity, care and harmony. The study of Economics motivates students to take an active interest in socio-economic issues as concerned citizens, and to improve the welfare of those around them. Also, students will learn how to thrive in a dynamic and increasingly interconnected world as well-prepared individuals who are able to contribute to the community and the nation, and respond constructively to local and global events as they unfold.

1.4 H2 Economics Syllabus Aims

The A-Level H2 Economics syllabus provides a broad understanding of Economics. Specifically, the H2 syllabus aims to develop in students:

- 1. an understanding of fundamental economic concepts, theories and principles, and of the tools and methods of analysis used by economists;
- 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 the national and international levels; and
- 4. the ability to use evidence in making well-reasoned economic arguments to arrive at rational and considered decisions.

1.5 Key Learning Outcomes

Economics is distinctive in terms of the approach used to analyse a range of issues faced by economies. The A-Level H2 Economics syllabus intends that students develop the knowledge, skills, values and attitudes as outlined below.

<u>Knowledge</u>

Students should possess an appropriate command of the economic language and terminology, and understand:

- fundamental economic concepts, theories and principles;
- tools and methods of economic analysis used by economists;
- real-world economic issues; and
- roles, perspectives and decisions of economic agents.

<u>Skills</u>

Students should develop the ability to:

- recognise economic phenomena in the national and international economy;
- select relevant and appropriate economic information from a variety of sources;
- infer and assess the assumptions made by various economic agents in interpreting economic phenomena and information;
- use evidence in making well-reasoned economic arguments to arrive at rational and considered decisions;
- analyse economic phenomena and decisions of economic agents using economic concepts, theories and principles; and
- evaluate the analyses and applications of economic concepts, theories and principles in the real world.

Values and Attitudes

Students should develop:

- an awareness of their roles and responsibilities as economic agents in the national and international economy;
- an appreciation of how their contributions at the individual level can impact the national and international economy;
- an appreciation of the roles of both markets and governments in achieving economic goals to improve living standards and quality of life; and
- the desire to participate in informed discussions that analyse contemporary economic issues and assess the responses of economic agents as well as the recommended solutions.

2. CONTENT

2.1 Framework for Disciplinary Thinking in A-Level Economics

Disciplinary thinking in A-Level Economics is concerned with utilising economic reasoning skills as valuable critical thinking tools to analyse and understand economic phenomena through the eyes of an economist, where economic concepts of efficiency, incentives and equilibrium are fundamental. "Thinking like an economist" requires using these fundamental concepts to frame and organise the way in which economic issues, policies and choices are studied, which necessitates the adoption of a decision-making approach to analyse economic issues, policies and choices.

In addition, all economic agents face the central economic problem of scarcity, a problem of having limited resources to satisfy unlimited wants. In the face of scarcity, economic agents make decisions in identifying their highest-ranked choice, which aims to maximise their well-being subject to the constraints faced, while accepting the trade-offs of their decisions.

With this backdrop, **economic decision-making** is positioned as a core skill in the framework for disciplinary thinking in A-Level Economics. A visual representation of the framework is presented below:

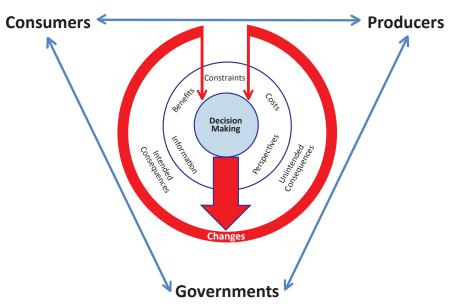


Figure 1: Framework for Disciplinary Thinking in A-Level Economics

There are three key economic agents in any economy – consumers, producers and governments. Economic agents interact with one another at both the national and international levels. Through the decision-making process, students will recognise that the decisions made by economic agents can have multifaceted implications that have an impact on the other economic agents in the national and international economy.

2.2 Key Features of the Prescribed Content for A-Level H2 Economics

The H2 Economics syllabus is designed through a thematic approach, which reflects a coherent flow of the content and enables students to appreciate the interrelations between economic concepts, theories and principles.

The H2 Economics syllabus is organised around three major themes that are selected to structure the learning of students in a progressive manner. The selection of the themes emphasises the disciplinarity of Economics. In addition, the themes consist of fundamental economic concepts which are essential for the study of Economics at the tertiary level. Students will examine economic phenomena beginning with the individual and societal levels (microeconomic analysis), followed by the national and global levels (macroeconomic analysis).

Each theme is headed by a preamble stating the key thrust and learning outcomes, followed by the economics content and a section on concepts and tools of analysis. This section provides a set of concepts and tools to explain and analyse economic issues, and to understand and evaluate perspectives and decisions of economic agents.

Theme 1: The Central Economic Problem

Theme 1 introduces students to the Central Economic Problem of unlimited wants and limited resources. The scarcity of resources necessitates choice and leads to decision-making. Through examining how the concepts of scarcity, choice and opportunity cost are faced by economic agents (consumers, producers and governments), students will be able to understand the Central Economic Problem facing societies and how economic agents use available information, and also consider perspectives, constraints, costs and benefits in their decision-making. Students will also understand that decisions made by economic agents often have both intended and unintended consequences.

This theme provides the foundation for the study of microeconomic and macroeconomic topics in Markets (Theme 2) and the National and International Economy (Theme 3) respectively, where the decision-making approach and concepts of scarcity, choice and opportunity cost recur.

Theme 1.1 Scarcity as the Central Economic Problem Economics Content

1.1 Scarcity as the Central Economic Problem

- 1.1.1 Scarcity, choice and resource allocation
 - a) Concept of scarcity and the inevitability of choices by economic agents (consumers, producers and governments)
 - b) Concept of opportunity cost and the nature of trade-offs in the allocation of resources
- 1.1.2 Rational decision-making process by economic agents
 - a) Understanding objectives of economic agents
 - Consumers maximisation of utility
 - 6

- Producers maximisation of profits
- Governments maximisation of social welfare
- b) Recognising constraints
- c) Gathering information and considering perspectives
- d) Weighing costs and benefits in decision-making*
- e) Recognising trade-offs
- f) Recognising intended and unintended consequences

Note:

*A marginalist approach to weighing costs and benefits is the expected approach. Cost-benefit analysis (CBA) is not required.

Theme 1.1 Scarcity as the Central Economic Problem Concepts and Tools of Analysis

- Positive and normative economics*
- Microeconomics and macroeconomics*
- Scarcity, choice and opportunity cost
- Production possibility curve
- Marginal cost, marginal benefit and marginalist principle
- Maximisation of utility*
- Maximisation of profit: Marginal Revenue = Marginal Cost
- Maximisation of social welfare: Marginal Social Benefit = Marginal Social Cost

Notes:

* An awareness of the concepts of positive and normative economics, microeconomics and macroeconomics is sufficient.

* An awareness of how consumers allocate resources to maximise utility is sufficient. The formal derivation of utility maximisation is not required.

Theme 2: Markets

In Theme 2, students examine how markets deal with the Central Economic Problem and how decisions are made by economic agents in markets. Theme 2 provides students with a microeconomic analysis of how markets function and how these markets may fail to achieve efficient and equitable outcomes. Students will be able to understand how market forces of demand and supply interact to bring about market equilibrium. Students will also examine the strategies of firms to achieve their objectives. In addition, students will be able to understand that while decisions made by consumers and producers are necessary for the functioning of markets, these decisions may lead to inefficient and inequitable outcomes. Students will be able to discuss how governments may intervene through public policy measures to improve efficiency and equity while recognising limitations, unintended consequences and possible trade-offs of government intervention. This theme provides students with insights into real-world microeconomic issues and also creates opportunities to deepen their economic reasoning and analytical skills, and to apply microeconomic concepts to both Singapore and the global economy.

Microeconomic concepts and theories in Themes 1 and 2 provide the foundation for students to extend their understanding of the micro-economy to the macro-economy in Theme 3.

Theme 2.1 Price Mechanism and its Applications Economics Content

2.1 Price Mechanism and its Applications

- 2.1.1 Price mechanism and its functions
 - a) Resource allocation in a free market
- 2.1.2 Interaction of demand and supply
 - a) Determinants of demand and supply
 - b) Equilibrium price and equilibrium quantity
 - c) Changes in demand and supply leading to changes in market equilibrium
- 2.1.3 Applications of demand and supply analysis to real-world markets*
 - a) Responsiveness of consumers and/or producers
 - Price, income and cross elasticities of demand determinants and significance
 - Price elasticity of supply determinants and significance
 - b) Impact of market outcomes on consumers and producers
 - Consumer expenditure and producer revenue
 - Consumer and producer surplus
 - c) Rationale and impact of government intervention on consumers and producers
 - Taxes and subsidies
 - Price controls maximum and minimum prices
 - Quantity controls quotas

Note:

*The focus is on the application of demand and supply analysis to any market. With reference to labour markets, the MRP theory of labour is not required.

Theme 2.1 Price Mechanism and its Applications Concepts and Tools of Analysis

- Price mechanism
- Consumer sovereignty
- Ceteris paribus
- Effective demand
- Law of diminishing marginal utility*
- Demand curve
- Change in demand versus change in quantity demanded
- Supply curve
- Change in supply versus change in quantity supplied
- Determinants of demand non-price factors
- Determinants of supply non-price factors
- Market equilibrium equilibrium price and quantity
- Market disequilibrium shortage and surplus
- Price elasticity of demand
- Income elasticity of demand
 - o Normal and inferior goods

- Cross elasticity of demand
 - o Complements and substitutes
- Price elasticity of supply
- Consumer expenditure and producer revenue
- Consumer and producer surplus
- Taxes and subsidies
- Price controls maximum and minimum prices
- Quantity controls quotas

Note:

*Technical analysis of the law of diminishing marginal utility is not required.

Theme 2.2 Firms and Decisions Economics Content

2.2 Firms and Decisions

- 2.2.1 Objectives of firms
 - a) Profit-maximising objective
 - Marginalist principle in determining profit-maximising output and price
 - b) Alternative objectives of firms
 - Entry deterrence, revenue maximisation, profit satisficing, and market share dominance

2.2.2 Costs and revenue

- a) Costs and revenue concepts*
 - Distinction between short run and long run
 - Average and marginal costs and revenue
 - Internal and external economies and diseconomies of scale

Note:

- * Derivation of costs and revenue curves is not required.
- 2.2.3 Firms' decisions and strategies
 - a) Characteristics of market structures*
 - b) Considerations involved in firms' decisions and strategies to achieve objectives including cost and revenue, competitors' actions, business risks, uncertainty considerations*
 - c) Decisions and strategies including price and output, price discrimination, shut-down decision, growth of firms, diversification, innovation, product differentiation, competition versus collusion*
- 2.2.4 Impact of decisions and strategies on consumers, firms and governments, including efficiency and equity, and consumer welfare.

Notes:

*Diagrammatic analysis of the comparison of types of market structure is not required. *Technical analysis of competitors' actions, business risks and uncertainty is not required. *Diagrammatic analysis of the shut-down decision is not required.

Theme 2.2 Firms and Decisions Concepts and Tools of Analysis

- Profit maximisation: Marginal Revenue = Marginal Cost
- Entry deterrence, revenue maximisation, profit satisficing, market share dominance
- Short run versus long run
- Fixed cost versus variable cost
- Total cost, average cost, marginal cost
- Total revenue, average revenue, marginal revenue
- Internal and external economies and diseconomies of scale
- Barriers to entry
- Market concentration ratio*
- Market structures
 - o Perfect competition, monopolistic competition, oligopoly, monopoly
- Price discrimination
- Shut-down condition
- Product differentiation
- Competition versus collusion
 - o Cartels, contestable markets
- Efficiency
 - o Allocative, productive and dynamic efficiency

Note:

*An awareness of the market concentration ratio and its calculation is sufficient.

Theme 2.3 Market Failure Economics Content

2.3 Market Failure

- 2.3.1 Efficiency and equity in relation to markets
- 2.3.2 Market failure and its causes
 - a) Public goods
 - Characteristics of non-excludability and non-rivalry
 - b) Positive and negative externalities in consumption and production
 - Divergence between private cost/benefit and social cost/benefit
 - c) Merit and demerit goods
 - d) Market dominance
 - e) Information failure
 - Imperfect and asymmetric information
 - f) Factor immobility
- 2.3.3 Government intervention in markets
 - a) Policy measures to address market failure including taxes and subsidies, quotas and tradable permits, joint and direct provision, rules and regulations, education and moral suasion
 - b) Effectiveness of policy measures and government failure

Theme 2.3 Market Failure Concepts and Tools of Analysis Market failure Allocative efficiency **Deadweight** loss Equity Private marginal benefit and cost External marginal benefit and cost Social marginal benefit and cost Social versus private (market) optimum Over-consumption and production Under-consumption and production Public goods o Non-excludability and non-rivalry Positive and negative externalities Merit and demerit goods Market dominance Information failure o Imperfect information Asymmetric information – moral hazard, adverse selection* • Factor immobility Note: *Technical analyses of moral hazard and adverse selection are not required.

Theme 3: The National and International Economy

Theme 3 provides students with an overview of the workings and linkages of the national and international economy. The key focus is on governments as economic agents, while recognising that the extent of government intervention differs among economies. Students will examine macroeconomic aims, issues and policies relating to growth, inflation, unemployment, exchange rates, balance of payments and income distribution, *with particular reference to the Singapore context*. Students will examine Singapore's position in the global economy and the impact of globalisation on the Singapore economy. In particular, students will be able to examine the impact of external trends and developments on the national, regional and international economies, and their implications for policy choices and decisions of governments.

In Theme 3, students will use concepts, theories and principles from Themes 1 and 2 to examine the problem of scarcity of resources and the concept of trade-offs at the broader level of the national and international economy.

Theme 3.1 Introduction to Macroeconomics **Economics Content** Introduction to Macroeconomics 3.1 3.1.1 Circular flow of income as an interactive model involving households, firms, government and the foreign sector 3.1.2 Aggregate demand (AD) and aggregate supply (AS) a) Factors affecting AD and AS b) Equilibrium level of national output and general price level c) Multiplier effect of changes in AD Theme 3.1 Introduction to Macroeconomics Concepts and Tools of Analysis Circular flow of income AD and factors affecting AD AS and factors affecting AS National output General price level Multiplier effect **Theme 3.2 Macroeconomic Aims and Policies Economics Content** 3.2 Macroeconomic Aims and Policies 3.2.1 Macroeconomic aims in relation to a) Living standards and its indicators Material and non-material aspects b) Economic performance and its indicators Economic growth o Sustainable growth o Inclusive growth (case of Singapore) Price stability Full employment Favourable position of balance of payments 3.2.2 Macroeconomic issues – causes and consequences in relation to a) Economic growth b) Inflation and deflation c) Full employment and unemployment d) Balance of payments deficit and surplus 3.2.3 Macroeconomic policies to achieve macroeconomic aims a) Policy measures and their effectiveness influencing AD/AS Fiscal policy o Government expenditure and revenue Monetary policy o Centred on interest rates o Centred on exchange rates (case of Singapore) Supply-side policies o Policies to improve quantity, quality and mobility of factors of production.

- o Policies to increase efficiency and remove barriers to competition and trade in product markets
- o Policies to give incentives and encourage enterprise

Theme 3.2 Macroeconomic Aims and Policies Concepts and Tools of Analysis

- Standard of living
 - o Material and non-material well-being
 - o Gross Domestic Product (GDP) and Gross National Income (GNI)
 - o Human Development Index (HDI)
- Income distribution
 - o Income inequality
 - o Gini coefficient
- Economic growth
 - o Actual and potential growth
 - o Sustainable growth
 - o Inclusive growth
- Business (trade) cycle
- Full employment and unemployment
 - o Types of unemployment
- Price stability
 - o Inflation and deflation
 - o Consumer price index (CPI)
- Nominal and real concepts
- Balance of payments
 - o Current and capital & financial accounts*
 - o Balance of payment surplus and deficit
- Short-term capital flows
- Long-term capital flows
 - o Foreign direct investment
- Fiscal policy
 - o Discretionary fiscal policy
 - o Automatic stabilisers
- Government budget surplus and deficit*
- Monetary policy
- Interest rates
- Exchange rate appreciation and depreciation
- Supply-side policies

Notes:

*Computation of current and capital & financial accounts is not required. *National debt and methods of budget deficit financing are not required.

Theme 3.3 Globalisation and the International Economy Economics Content

3.3 Globalisation and the International Economy

- 3.3.1 Globalisation and its impact on the economy
 - a) Factors affecting globalisation
 - b) Benefits and costs of globalisation
- 3.3.2 Trade policy decisions and their impact on the economy
 - a) Free trade
 - Theory of comparative advantage
 - Benefits of free trade
 - Patterns of trade (case of Singapore)
 - b) Protectionism
 - Protectionist measures
 - Benefits and costs of protectionism
 - c) Economic co-operation and trade agreements between countries*
 - Benefits and costs

Note:

*An awareness of the forms of economic co-operation and trade agreements between countries is sufficient. Detailed knowledge of the forms of economic integration, institutional knowledge and legislation is not required. Diagrammatic analysis of economic co-operation and trade agreements between countries is not required.

Theme 3.3 Globalisation and the International Economy Concepts and Tools of Analysis

- Globalisation
- Theory of comparative advantage
- Dynamic comparative advantage
- Free trade
- Patterns of trade
- Free trade versus protectionism
- Protectionist measures
 - o Tariffs and non-tariff measures
- International and regional economic co-operation

3. PEDAGOGY

3.1 Constructivist Pedagogies

Constructivist pedagogies are based on the principle that learning occurs through meaningful experiences, where knowledge is progressively built through the interactions that the learners have within the learning environment. When used as a complement to pedagogical approaches that rely more on direct instruction, constructivist pedagogies provide opportunities for students to be actively involved in collaborative work and engaged in meaningful discussions and inquiries to make sense of concepts, theories and principles as well as the tools of analysis. Constructivist pedagogies can take different forms, including:

- **Participative pedagogies**, which are a form of social constructivist pedagogies where students take an active role in their learning through collaborative work in class or technology-mediated learning (Pritchard & Woollard, 2010).
- **Discursive pedagogies**, which are student-centred approaches to teaching and learning where students are actively engaged in meaningful discussions with their peers to facilitate the generation of knowledge.
- Interactive pedagogies, which involve active interaction between students as well as between students and their teachers.

3.2 Elements of Constructivist Classrooms and their Applications to A-Level Economics

With students taking on a more active role in learning, students in constructivist classrooms are the makers of meaning and knowledge (Pritchard & Woollard, 2010). There is greater student participation, collaboration and discussion, and greater dialogue between students, their teachers and peers (Fogarty, 1995; Pritchard & Woollard, 2010).

Teachers no longer prescribe the amount of learning in the classroom; rather, they facilitate the learning process. Metacognition, cognitive conflict, and peer interaction are valued. Constructivist teachers understand their students' pre-existing conceptions and design activities to support and build upon them. They explain the rationale behind learning to students, and provide them with opportunities for more ownership and active engagement during learning. They also leverage student experiences, contextualise classroom activities with real-life examples, and engage students through more in-depth dialogue and questioning (Pritchard & Woollard, 2010).

In the teaching and learning of A-Level Economics, a variety of teaching strategies can be used to provide a more learner-centred environment, which helps to ignite students' interest in Economics and develop their higher-order thinking skills. Given the decision-making approach and the continued emphasis on application, the repertoire of teaching strategies can be enhanced by incorporating constructivist pedagogies, thereby achieving deeper learning with improved student learning outcomes as students engage in the co-construction of knowledge with their peers and their teachers.

4. ASSESSMENT

4.1 MOE's Assessment Philosophy

Assessment is an integral part of the learning process, and must be closely aligned with curricular objectives, content and pedagogy. Both school-based assessment and national examinations play important and different roles in our education system. A balanced assessment system should have both assessment of learning (AoL) as well as assessment for learning (AfL). Whether implemented as national examinations or in the classroom, assessment should lead to meaningful learning. The "what" and "how" of assessment should be anchored on the clarity of purpose ("why"). There should be regular gathering of quantitative and qualitative information about a learner's progress and development, and such information should be used to inform learning and shape future teaching and learning practices.

4.2 Assessment as a Means to Improve Student Learning

As expounded in the A-Level H2 Economics syllabus, the emphasis is placed on the development of higher-order thinking skills in students, such as critical thinking, evaluation and data-handling skills, rather than on the development of students' ability to memorise and regurgitate factual and procedural knowledge. In this regard, the incorporation of assessment for learning considerations in curriculum design lends itself well to improving student learning, given that assessment outcomes are positioned as a means to improve student learning rather than as an end in itself (Volante & Jaafar, 2010). One key distinction between assessment of learning and assessment for learning is the purpose of assessment. Typically, assessment of learning is used to measure student learning against a narrowly-defined set of knowledge and skills that are deemed to be most important to learn (Horn, 2003) at the end of a topic or a school term, and are typically meant for teacher accountability, student progression and record-keeping purposes (Volante & Jaafar, 2010). In contrast, assessment for learning is used to measure student learning at different junctures of the learning process in order to provide valuable information that helps to guide students in achieving the key learner outcomes. For instance, teachers could use the information obtained to inform subsequent instructional decisions so that student learning can be improved, enriched and made more meaningful (Tan, 2011).

Assessment for learning tasks often involve calling upon students to construct their own meaning or knowledge (Black & Wiliam, 2005), while at the same time engaging them in higher-order thinking and authentic problem-solving instead of focusing on the routine use of facts and procedures. More importantly, assessment for learning allows teachers and students to move away from a myopic focus on mastering what can be measured on standardised tests to consider other educationally-important but untested knowledge and skills (Horn, 2003), such as the 21CC. It would thus be timely to consider how the emphasis could be shifted from the assessment of learning to assessment for learning in the A-Level Economics classrooms. For example, assessment for learning tasks could incorporate the use of peer assessment during group work, ICT-enhanced collaboration or student presentations. On top of encouraging greater student ownership and engagement in the learning

process, the use of assessment for learning tasks facilitates and improves student learning as they receive timely feedback from multiple sources (teachers and other students). Feedback from assessment for learning tasks also helps to affirm students' achievement or identify areas for improvement.

With the regular use of assessment for learning approaches to complement assessment of learning (which will be elaborated on in the next section), the teaching and learning of A-Level H2 Economics would be well-placed to achieve the key learner outcomes that are outlined in the syllabus.

4.3 The A-Level Examination for H2 Economics

Students sit for the A-Level H2 Economics examination at the end of Junior College 2 or Pre-University 3. The assessment objectives and scheme of assessment are as follows.

4.3.1 Assessment Objectives (AO)

Students are expected to:

AO1: Knowledge and Understanding

• demonstrate knowledge and understanding of economic concepts, theories and principles;

AO2: Interpretation and Evaluation of Information

- interpret economic information presented in textual, numerical or graphical form;
- make valid inferences from information presented and evaluate the reliability of information given;

AO3: Application and Analysis

- apply relevant economic concepts, theories and principles to analyse contemporary issues, perspectives and policy choices;
- construct coherent economic arguments;

AO4: Evaluation

- evaluate critically alternative theoretical explanations, contemporary issues, perspectives and policy choices;
- recognise unstated assumptions and evaluate their relevance; and
- synthesise economic arguments to arrive at well-reasoned judgements and decisions.

4.3.2 Scheme of Assessment

Assessment Mode

The assessment comprises two compulsory written examination papers: Paper 1 (Case Studies) and Paper 2 (Essays). Taken as a whole, both papers incorporate a good balance of questions on microeconomics and macroeconomics.

Description of Components

Paper 1 (Case Studies)

The paper includes two case studies, each of which consists of two to three pages of data presented in textual, numerical or graphical form. Each will present contemporary multifaceted economic issues or policies, which may be from one or more themes in the syllabus.

The data for each case study will be followed by six or seven part-questions. These questions will require students to apply relevant economic concepts, theories and principles in analysing, synthesising and evaluating economic issues, perspectives or policies, with reference to the data provided.

Paper 2 (Essays)

Questions in Section A will focus mainly on microeconomics and questions in Section B will focus mainly on macroeconomics. Each essay question may or may not be divided into part (a) and part (b). Questions may be put in real-world contexts.

Students are expected to apply relevant economic concepts, theories and principles to analyse issues and to evaluate perspectives or policies. They should synthesise and construct coherent arguments to arrive at well-reasoned judgements and decisions.

Table 1: Table of Specifications for the Weighting of Assessment Objectives in Papers 1 and 2 for A-LevelH2 Economics

H2 Economics	Description	Overall Marks (Weighting)	Duration
Paper 1 Case Studies	There will be two compulsory case studies. Students are required to answer all questions for each case study. Each case study carries 30 marks and constitutes 20% of the total marks. About 12 marks of each set of case study questions will be for data response questions, and about 18 marks will be for higher-order questions.	60 marks (40%)	2 hours and 15 minutes
	 For Paper 1, questions testing AO1 + AO2 + AO3 marks and questions testing AO1 + AO2 + AO3 + AO marks. 		
Paper 2 Essays	Students are required to answer a total of three essay questions , of which one must be from Section A, one from Section B and one from either Section A or B.		
	Section A: Three essay questions focusing mainly on microeconomics will be set. Students must answer at least one question from this section. Each question carries 25 marks. Section B:	75 marks (60%)	2 hours and 15 minutes
	Three essay questions focusing mainly on macroeconomics will be set. Students must answer at least one question from this section. Each question carries 25 marks.	prise about 40% of t	he marks and
	 For Paper 2, questions testing AO1 + AO3 will comprise about 40% of the ma questions testing AO1 + AO2 + AO3 + AO4 will comprise about 60% of the manual 		

5. References

- Black, P., & Wiliam, D. (2005). Lessons from around the world: How policies, politics and cultures constrain and afford assessment practices. *The Curriculum Journal*, *16*(2), pp. 249–261. doi:10.1080/09585170500136218
- Fosnot, C. T. (2005). Constructivism: Theory, perspectives and practice. MA: Teachers College Press.
- Horn, C. (2003). High-stakes testing and students: Stopping or perpetuating a cycle of failure? *Theory in Practice*, *42*(1), pp. 30–41. Retrieved from http://www.jstor.org/stable/1477316
- Pritchard, A. & Woollard, J. (2010). *Psychology for the classroom: Constructivism and social learning.* MA: Taylor & Francis.
- Tan, K. (2011). Assessment for learning in Singapore: Unpacking its meanings and identifying some areas for improvement. *Educational Research for Policy and Practice*, 10(2), pp. 91–103. doi:10.1007/s10671-010-9096-z
- Volante, L. & Jaafar, S. B. (2010). Assessment reform and the case for learning-focused accountability. *The Journal of Educational Thought*, 44(2), pp. 167–188.