

SUBJECT KNOWLEDGE

This group of modules helps to reinforce subject content mastery for primary school teaching. Student teachers in the primary track must offer SK modules aligned with their choice of Curriculum Studies (CS) subjects.

For each CS subject, there will be two Subject Knowledge (SK) modules for those in the primary track in Option B while those who select Option A will have three SK modules for further deepening their subject knowledge. In the case where the student teacher's AS is related to the CS subject, he/she will only be required to do only 2 SK modules if Option A is selected and either 1 or 2 SK modules if Option B is selected as determined by the Academic Group.

For Physical Education and Sports Science specialisation in the primary track, student teachers will offer SK modules aligned with the CS2 and CS3 subjects and will read 3 SK modules per subject.

Those in the Secondary track will not be reading SK modules as it is assumed that they would have obtained this knowledge from the 2 AS subjects offered.

Art

For Art, Subject Knowledge is integrated with Curriculum Studies.

English Language

Table 1: For student teachers offering AS: English Language

| Module Code | Title | Module Category | No of AUs | Pre-requisite |
|-------------|--|-----------------|-----------|---------------|
| ASE301 | Text Types | Core | 2 | - |
| ASE401 | Current Trends in Language Education in the Upper Primary School * | Core | 2 | - |

Table 2: For student teachers offering Other AS

| Module Code | Title | Module Category | No of AUs | Pre-requisite |
|-------------|--|-----------------|-----------|---------------|
| ASE201 | Grammar | Core | 2 | - |
| ASE301 | Text Types | Core | 2 | - |
| ASE401 | Current Trends in Language Education in the Upper Primary School * | Core | 2 | - |

* Only for student teachers in the Primary (Option A) strand

ASE201 Grammar

This module introduces student teachers to the grammatical structures of the English Language, enabling them to understand the language requirements of the English Language Syllabus 2001. Through examining the grammatical systems of English in selected text types, the module explores ways of explaining grammar in use.

ASE301 Text Types

In this module, student teachers will understand how language is used in different text types to achieve different purposes. They will study both fiction and non-fiction texts written for children, and will learn how to analyse these text types in terms of context, purpose and audience to identify organisational structure, as well as key language features. Through tutorial activities, student teachers will see how all these features of texts work together and are used by readers and writers to communicate and construct meaning.

ASE401 Current Trends in Language Education in the Upper Primary School

This module is for student teachers who wish to specialise in teaching English in the upper primary. In the module student teachers will learn about current Ministry of Education initiatives and how they are being implemented in schools at the upper primary level. The module will consider current moves in language education towards curriculum integration and multiliteracies and multimodalities. The principles presented will be referred to in the module 'Teaching the Language Skills in the Upper Primary (CSP/CS Upper Primary).'

Mathematics

Table 1: For student teachers offering AS: Mathematics

| Module Code | Title | Module Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| ASM202 | Fundamental Principles of Primary Mathematics I | Core | 2 | - |
| ASM302 | Fundamental Principles of Primary Mathematics II | Core | 2 | - |

Table 2: For student teachers offering Other AS

| Module Code | Title | Module Category | No of AUs | Pre-requisites |
|-------------|------------------------------|-----------------|-----------|----------------|
| ASM201 | Number Topics | Core | 2 | - |
| ASM301 | Geometry Topics | Core | 2 | - |
| ASM401 | Further Mathematics Topics * | Core | 2 | - |

* Only for student teachers in the Primary (Option A) strand

ASM201 Number Topics

This module provides the foundational understanding of arithmetic topics which form a major portion of the primary mathematics curriculum. Problem solving processes will be introduced and re-visited in the different topics. Module topics are: Problem solving; Foundations of the Hindu-Arabic System; Algorithms on number operations in a place value system; Classification of number systems; Divisibility; Ratio, proportion and rates.

ASM202 Fundamental Principles of Primary Mathematics I

This module surveys topics covered in primary school curriculum and provides linkages between the Academic Subject Mathematics modules. Topics include: Problem solving and problem posing; Binary operations and four operations of numbers, classification of number systems; Sequence and Series and decimal representation of numbers, rational and irrational numbers; Computation in different bases; Historical Numeration system; Number Theory and divisibility; Proportional reasoning; Algebraic reasoning; Inequalities and approximations; Counting methods and systematic listing.

ASM301 Geometry Topics

This module aims to equip the primary mathematics teacher with a deeper understanding of geometry and measurement topics in the primary mathematics curriculum. Processes such as mathematical deduction and induction will be emphasized. Topics are: Mathematical deduction and induction; Basic elements of geometry as study of space in 2 and 3 dimensions; Properties associated with parallel lines; Properties of geometrical figures; Similarity and Congruency; Measurement; Constructions and proofs; Motion Geometry and tessellations.

ASM302 Fundamental Principles of Primary Mathematics II

This module builds up the student teacher's knowledge of geometry and data topics from the perspective of concepts which are taught in the primary mathematics syllabus. The module will draw upon concepts and processes learned in Academic Subject Mathematics modules. Topics are: Introduction to Geometry and geometrical entities; Measurement in Geometry; Geometrical constructions with concrete and virtual tools; Problem solving in geometry; Statistics.

ASM401 Further Mathematics Topics

This module provides the mathematics teacher with deeper understanding and appreciation of the topics in the upper primary mathematics curriculum. Topics are:

Mathematical thinking; Use of dynamic geometry software and other software for mathematical investigations; Geometrical figures in 3-dimensions; Algebra; Statistical investigations: Stages, Representations of data; Measures of central tendency and spread; misuse of statistics.

Music

Table 1: For student teachers offering AS: Music

| Module Code | Title | Module Category | No of AUs | Pre-requisites |
|-------------|-------------------------|-----------------|-----------|----------------|
| ASI201 | General Musicianship I | Core | 2 | - |
| ASI301 | General Musicianship II | Core | 2 | - |

Table 2: For student teachers offering Other AS

| Module Code | Title | Module Category | No of AUs | Pre-requisites |
|-------------|----------------------------|-----------------|-----------|----------------|
| ASI201 | General Musicianship I | Core | 2 | - |
| ASI301 | General Musicianship II | Core | 2 | - |
| ASI401 | General Musicianship III * | Core | 2 | - |

* Only for student teachers in the Primary (Option A) strand

ASI201 General Musicianship I

This module seeks to establish a foundation in musicianship skills (aural-training, sight-singing, keyboard skills, functional music theory and analysis) for the music classroom via the activities of creating, performing and responding.

ASI301 General Musicianship II

This module builds on foundational musicianship skills and seeks to intensify these skills while introducing concepts and principles of applying such skills to music teaching and learning for the classroom.

ASI401 General Musicianship III

This module provides advanced level musicianship training to prepare student teachers as a music specialist. It seeks to further reinforce and sharpen their aural perception, sight singing and keyboard skills and analytical understanding to fulfil the task of a music specialist in teaching and learning for both classroom and co-curricular music settings.

Science

Table 1: For student teachers offering AS: Biology

| Module Code | Title | Module Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| ASK201 | Topics in Physical Science for Primary Science Teaching | Core | 2 | - |
| ASK401 | Further Topics for Primary Science Teaching * | Core | 2 | - |

Table 2: For student teachers offering AS: Physics

| Module Code | Title | Module Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| ASK301 | Topics in Biological Science for Primary Science Teaching | Core | 2 | - |
| ASK401 | Further Topics for Primary Science Teaching * | Core | 2 | - |

Table 3: For student teachers offering other AS

| Module Code | Title | Module Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| ASK201 | Topics in Physical Science for Primary Science Teaching | Core | 2 | - |
| ASK301 | Topics in Biological Science for Primary Science Teaching | Core | 2 | - |
| ASK401 | Further Topics for Primary Science Teaching * | Core | 2 | - |

* Only for student teachers in the Primary (Option A) strand

ASK201 Topics in Physical Science for Primary Science Teaching

This module deals with the theoretical and practical aspects of Physical Science topics selected from the new Primary Science Curriculum. The topics include matter and materials, forms of energy and conversions, heat, light and the solar system, magnetism and electricity, forces and simple machines.

ASK301 Topics in Biological Science for Primary Science Teaching

This module deals with the theoretical and practical aspects of topics in Biological Science from the new Primary Science Curriculum. The topics to be discussed include basic biology, classification and diversity of organisms (reproduction and life cycles), structure and function of plant systems, structure and function of animal systems, ecology and environmental issues.

ASK401 Further Topics for Primary Science Teaching

This module is a continuation of the SK Science Modules 1 and 2 and further elaborates on topics in biology and physics for teaching the primary science syllabus. Topics in biology include cells, DNA, mechanisms of plant and animal functions, and conservation. Topics in physical science include: electricity and magnetism, forces and motion, forms of energy, and contemporary physics concepts.

Social Studies

Table 1: For student teachers offering AS: History

| Module Code | Title | Module Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| ASL301 | Geography for Primary Social Studies | Core | 2 | - |
| ASL401 | Issues and Themes in Upper Primary Social Studies * | Core | 2 | - |

Table 2: For student teachers offering AS: Geography

| Module Code | Title | Module Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| ASL201 | History for Social Studies | Core | 2 | - |
| ASL401 | Issues and Themes in Upper Primary Social Studies * | Core | 2 | - |

Table 3: For student teachers offering Other AS

| Module Code | Title | Module Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| ASL201 | History for Social Studies | Core | 2 | - |
| ASL301 | Geography for Primary Social Studies | Core | 2 | - |
| ASL401 | Issues and Themes in Upper Primary Social Studies * | Core | 2 | - |

* Only for student teachers in the Primary (Option A) strand

ASL201 History for Social Studies

This module aims to equip student teachers with an in-depth knowledge of the history of Singapore. The emphasis is on independent learning and critical thinking. Relevant historical skills, such as handling sources, perspectives and oral history, will be covered.

ASL301 Geography for Primary Social Studies

An in-depth account of certain topics from the primary social studies curriculum, such as, the physical environment, weather and natural vegetation of Singapore. Issues on constraints of a small island state, social, economic and political developments, conservation and preservation of natural and cultural heritage, human-nature interactions, Singapore in the context of ASEAN and the world community, and the dependence and interdependence of nations and regions. Some relevant geographical skills such as map reading and photo interpretations.

ASL401 Issues and Themes in Upper Primary Social Studies

This module offers an integrated approach to Social Studies content by drawing on multidisciplinary perspectives. Student teachers will be encouraged to examine themes and delve in greater depth into issues mainly through problem based learning and a series of seminars.