BACHELOR OF ARTS IN AN ACADEMIC DISCIPLINE AND IN EDUCATION

BACHELOR OF SCIENCE IN AN ACADEMIC DISCIPLINE AND IN EDUCATION

Nanyang Technological University (NTU)
National Institute of Education (NIE)
1 Nanyang Walk
Singapore 637616
Republic of Singapore

NTU Reg. No. 200604393R

July 2026

ENQUIRIES

For enquiries on admission to Initial Teacher Preparation (ITP) programmes and Sport Science and Management (SSM) programme offered by NIE, please email to:

nieadmtp@nie.edu.sg

For enquiries on academic matters relating to the Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education programmes:

dmp@nie.edu.sg

You may wish to visit the following NIE homepage for information on the ITP and SSM programmes:

https://www.ntu.edu.sg/nie

For information on the NIE programmes that MOE offers to its sponsored candidates, please refer to the MOE website:

https://www.moe.gov.sg/careers/become-teachers

CONTENTS

General Information 1
Introduction 2
Academic Calendar 6
Applications 7
Other Requirements 10
Matriculation and Registration 18
Examinations, Assessment of Coursework & Practicum 19
Research 27
The Meranti Project 28
Certificate in English Language Studies (CELS) 29
Building University Interns for Leadership Development 30
GEM Explorer 31
NIE International Practicum 32
NIE-administered Semester Exchange 33
NIE Singapore Undergraduate Online 34
NIE-administered Summer/ Winter Programme 35
Academic Structure of Programmes 36
Structure of NIE Double Major Programmes 37
Curriculum Structure for Bachelor of Arts in an Academic Discipline and in Education (Primary) (General) Programmes 44
Curriculum Structure for Bachelor of Arts in Chinese / Malay / Tamil Studies and Education (Primary) Programme 50
Curriculum Structure for Bachelor of Arts in an Academic Discipline and in Education (Secondary) (General) Programmes 56
Curriculum Structure for Bachelor of Arts in Chinese / Malay / Tamil Studies and Education (Secondary) Programme 62
Curriculum Structure for Bachelor of Science in an Academic Discipline and in Education (Primary) (General) Programmes 68
Curriculum Structure for Bachelor of Science in Sport Science and Education (Primary) Programme 74
Curriculum Structure for Bachelor of Science in an Academic Discipline and in Education (Secondary) (General) Programmes 80
Curriculum Structure for Bachelor of Science in Sport Science and Education (Secondary) Programme 88
Description of Academic Discipline Majors and Minors 94
Academic Discipline Major 107
Art 110
Biology 116
Chemistry 123
Chinese Studies 130
Drama 137
English Language & Linguistics 147
English Literature 163
Food & Consumer Sciences 176
Geography 183
History 196
Malay Studies 212
Mathematics & Computational Thinking 219

Music 233
Sport Science 245
Physics & Energy Studies 256
Tamil Studies 263
Education Major 270
Education Studies 271
Practicum 281
Curriculum Studies 283
The Teaching of Art (Primary) 284
The Teaching of Chinese Language (Primary) 286
The Teaching of Character and Citizenship Education (Chinese) (Primary). 289
The Teaching of English Language (Primary) 291
The Teaching of Malay Language (Primary) 295
The Teaching of Character and Citizenship Education (Malay) (Primary) 298
The Teaching of Mathematics (Primary) 300
The Teaching of Music (Primary) 302
The Teaching of Physical Education (Primary) 304
The Teaching of Science (Primary) 311
The Teaching of Social Studies (Primary) 313
The Teaching of Tamil Language (Primary) 316
The Teaching of Character and Citizenship Education (Tamil) and Tamil Literature (Primary) 318
The Teaching of Art (Secondary) 320
The Teaching of Biology (Secondary) 322
The Teaching of Chemistry (Secondary) 324
The Teaching of Chinese Language (Secondary) 326
The Teaching of Chinese Literature (Secondary) 329
The Teaching of Drama (Secondary) 331
The Teaching of English Language (Secondary) 334
The Teaching of English Literature (Secondary) 337
The Teaching of Geography (Secondary) 339
The Teaching of History (Secondary) 341
The Teaching of Malay Language (Secondary) 345
The Teaching of Malay Literature (Secondary) 347
The Teaching of Mathematics (Secondary) 349
The Teaching of Music (Secondary) 352
The Teaching of Nutrition and Food Science (Secondary) 355
The Teaching of Physics (Secondary) 357
The Teaching of Physical Education (Secondary) 360
The Teaching of Social Studies (Secondary) 363
The Teaching of Tamil Language (Secondary) 365
The Teaching of Character and Citizenship Education (Tamil) and Tamil Literature (Secondary) 367
Inter-Major Courses 369
Interdisciplinary Collaborative Core 377
Broadening & Deepening Electives 383
Minor in Primary Level Subjects (NIE) 384
Academic Discipline Minor 396
Minor in Art (NIE) 396
Minor in Chemistry (NIE) 396

Minor in Drama (NIE) 396
Minor in English Language & Linguistics (NIE) 397
Minor in English Literature (NIE) 397
Minor in Geography (NIE) 397
Minor in History (NIE) 397
Minor in Mathematics & Computational Thinking (NIE) 398
Minor in Music (NIE) 398
Minor in Physics & Energy Studies (NIE) 398
Minor in Social Studies (NIE) 398
Minor in Chinese Literature (NIE) 401
Minor in Malay Literature (NIE) 404
Minor in Tamil Literature & CCE (NIE) 406
Other Broadening & Deepening Electives 409

The information in this handbook is based on information available at the time of publication. The Institute reserves the right to make alterations without notice.

General Information

Introduction

The National Institute of Education (NIE), Singapore was established on 1 July 1991 as an institute of the Nanyang Technological University, Singapore (NTU Singapore).

NIE's Vision

An Institute of Distinction:
Leading the Future of Education

NIE's Mission

Inspiring Learning, Transforming Teaching, Advancing Research

Double Major Degree Programmes Offered

Students in the Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education programmes, hereinafter referred interchangeably as "BA/BSc" or "Double Major Programmes", are registered as undergraduates of the Nanyang Technological University, Singapore.

The University offers the following double major degree programmes at the National Institute of Education:

- Bachelor of Arts in Art and Education
- Bachelor of Arts in Chinese Studies and Education
- Bachelor of Arts in Drama and Education^
- Bachelor of Arts in English Language & Linguistics and Education
- Bachelor of Arts in English Literature and Education
- Bachelor of Arts in Geography and Education
- Bachelor of Arts in History and Education
- Bachelor of Arts in Malay Studies and Education
- Bachelor of Arts in Music and Education
- Bachelor of Arts in Tamil Studies and Education
- Bachelor of Science in Biology and Education

- Bachelor of Science in Chemistry and Education
- Bachelor of Science in Food & Consumer Sciences and Education^
- Bachelor of Science in Mathematics & Computational Thinking and Education
- Bachelor of Science in Physics & Energy Studies and Education
- Bachelor of Science in Sport Science and Education

In addition to a double major programme, undergraduates will also complete a minor* in one of these areas:

- Art (NIE)
- Biology (NIE)
- Chemistry (NIE)
- Chinese Literature (NIE)
- Drama (NIE)^
- English Language & Linguistics (NIE)
- English Literature (NIE)
- Geography (NIE)
- History (NIE)
- Malay Literature (NIE)
- Mathematics & Computational Thinking (NIE)
- Music (NIE)
- Physics & Energy Studies (NIE)
- Social Studies (NIE)
- Tamil Literature & CCE (NIE)
- Primary Level Subjects (NIE)**

^ These programmes are currently not offered.

* These minors are exclusive to NIE student teachers only.

** "Primary Level Subjects (NIE)" comprises subject knowledge courses from two primary level subjects, for example, English Language and Mathematics.

All these programmes are administered by the Office of Teacher Education & Undergraduate Programmes (TEUP) which is committed to nurturing future-ready educators.

All student teachers come under the purview of the Dean, Teacher Education & Undergraduate Programmes.

Aims of NIE's Double Major Programmes

The double major degree programmes are designed to integrate synergistically the best of an Arts or Science-based disciplinary study and strong foundational studies in the field of education.

The programmes prepare graduates to be scholars and educators with comprehensive knowledge and inquiry skills to excel in careers in education, education-related fields and beyond.

Each curriculum is broad-based, with a strong emphasis on inquiry-based learning in the form of research in both an academic discipline and education areas. It also caters to the students' academic or professional interests and aspirations. The rigour of the programmes measures up to international standards and will enable our graduates to pursue advanced qualifications in both academic disciplines and the field of education.

Duration of NIE's Double Major Programmes

The programmes extend over a period of four years and lead to the award of the degree of Bachelor of Arts or Bachelor of Science in an Academic Discipline and in Education (refer to page 2 and 3 for the full list of double major programmes). Students may be awarded an honours degree based on their excellent overall performance. The minimum period of study required for the degree of BA/BSc (Academic Discipline & Education) upon admittance in Year 1 is 3½ years. No candidate is permitted to take more than six years to obtain the degree.

NTU-NIE Teaching Scholars Programme

The NTU-NIE Teaching Scholars Programme (TSP) is one of NTU's Signature Programmes. It is a prestigious award for outstanding scholars with a passion and calling to be professional leaders in education. TSP aims to produce graduates with

intellectual rigour, strong leadership, and relevant global perspective to make significant contributions to education.

TSP is a 4-year programme that builds on the core curriculum in the Bachelor of Arts/Science in an Academic Discipline and in Education programmes. Its combination of electives, seminars, internships, leadership programmes, and learning opportunities (local as well as international) promises to broaden student teachers' perspectives to enable them to be leaders of educational change.

For details on the TSP including the application process, please refer to the NIE Website:
https://www.ntu.edu.sg/nie/programmes/undergraduate-programmes/teaching-scholars-programme

The Academic Unit System

The University adopts the Academic Unit System, that is, academic units are used to measure academic workload per semester and per academic year. The academic year consists of two main semesters.

The Academic Unit (AU) provides a consistent measure of students' academic workload in relation to both class attendance and independent preparation. Each Academic Unit represents an average workload of one hour per week over 13 teaching weeks. For lecture/tutorial classes, this typically means 1 hour per week but for laboratory/field work sessions, it equates to 3 hours per week.

For example, a 3-AU course may consist of:

1-hr lectures + 2-hr tutorials per week over 13 weeks

or

2-hr lectures + 3-hr lab per week over 13 weeks

or

3-hr lectures/tutorials over 12 weeks + one 3-hr field trip

Academic Calendar

The academic year is made up of two semesters as follows:

Academic Year 2026-2027

Programme	Dates of Orientation (O+) / Teaching Weeks (TW) / Recess (R) / Vacation (V)	Dates of Revision / Examination / Compulsory Events	Dates of Practicum / Internship
BA/BSc (Acad Dspln & Ed) Year 1	**Semester 1** O+ : 15 Jul 2026 – 21 Jul 2026 03 Aug 2026 – 07 Aug 2026 TW : 10 Aug 2026 – 13 Nov 2026 R : 26 Sep 2026 – 04 Oct 2026 V : 05 Dec 2026 – 10 Jan 2027 **Semester 2** TW : 11 Jan 2027 – 16 Apr 2027 R : 27 Feb 2027 – 07 Mar 2027 V : 08 May 2027 – 08 Aug 2027	16 Nov 2026 – 04 Dec 2026 19 Apr 2027 – 07 May 2027	NIL BUILD: 10 May 2027 – 25 Jun 2027 28 Jun 2027 – 09 Jul 2027* (2 weeks of School Experience during the vacation before Year 2)
BA/BSc (Acad Dspln & Ed) Year 2	**Semester 1** TW : 10 Aug 2026 – 13 Nov 2026 R : 26 Sep 2026 – 04 Oct 2026 V : 05 Dec 2026 – 10 Jan 2027 **Semester 2** TW : 11 Jan 2027 – 16 Apr/21 May 2027@ R : 27 Feb 2027 – 07 Mar 2027 V : 08/22 May 2027 – 08 Aug 2027	16 Nov 2026 – 04 Dec 2026 19 Apr 2027 – 07 May 2027	NIL 28 Jun 2027 – 30 Jul 2027* (5 weeks of Teaching Assistantship during the vacation before Year 3)
BA/BSc (Acad Displn & Ed) Year 3	**Semester 1** TW : 10 Aug 2026 – 13 Nov 2026 R : 26 Sep 2026 – 04 Oct 2026 V : 05 Dec 2026 – 10 Jan 2027 **Semester 2** TW : 11 Jan 2027 – 16 Apr 2027 R : 27 Feb 2027 – 07 Mar 2027 V : 08 May 2027 – 08 Aug 2027	16 Nov 2026 – 04 Dec 2026 19 Apr 2027 – 07 May 2027	NIL 28 Jun 2027 – 30 Jul 2027* (5 weeks of Teaching Practice 1 during the vacation before Year 4)
BA/BSc (Acad Displn & Ed) Year 4	**Semester 1** TW : 10 Aug 2026 – 13 Nov 2026 R : 26 Sep 2026 – 04 Oct 2026 V : 05 Dec 2026 – 10 Jan 2027 **Semester 2** TW : 11 Jan 2027 – 16 Apr 2027^ R : 13 Mar 2027 – 21 Mar 2027	16 Nov 2026 – 04 Dec 2026 19 Apr 2027 – 07 May 2027 10 May 2027 – 21 May 2027 (Beginning Teachers' Orientation Programme)	NIL 22 Feb 2027 – 07 May 2027** (10 weeks of Teaching Practice 2)

* Practicum starts during the vacation period

** If NTU recess falls within the Practicum period, that programme will follow the school's one-week break

@ Student Teachers in the Primary track not majoring in English Language & Linguistics but taking CS English Language will attend CELS sessions from 10 to 21 May 2027.

^ Student Teachers in the Secondary track taking CS Biology, Chemistry or Physics are required to take a Lower Secondary Science Content Upgrading course at the end of May 2027.

Applications

Application through the Nanyang Technological University, Singapore

Applications for admission must be submitted online through the Nanyang Technological University, Singapore (NTU Singapore) website at https://www.ntu.edu.sg. In addition, for those seeking sponsorship from the Ministry of Education (MOE), an application must also be submitted to MOE at https://www.moe.gov.sg/careers/become-teachers.

Application Closing Date

The programme commences in August. To find out more about the various application periods, please visit https://www.ntu.edu.sg and https://www.moe.gov.sg/careers/become-teachers.

1 Minimum Entry Requirements for the Bachelor of Arts/Science in an Academic Discipline and in Education Programmes

1.1 For GCE 'A' Level Holders (for Examinations taken in Year 2006 or before)

Applicants who have taken the Singapore-Cambridge GCE Advanced Level Examination or Higher School Certificate Examination must have obtained:

a) passes in at least two subjects at 'A' level and two subjects at 'AO' level including a pass in General Paper (English) taken at one and the same sitting of the examination;

b) minimum grade of D7 in a second language (Chinese/Malay/Tamil) taken at the GCE 'A' Level Examination, or a minimum grade of D7 in a first language (Higher Chinese/Higher Malay/Higher Tamil) taken at the GCE 'O' Level Examination

Applicants who have taken commercial subjects in the Singapore-Cambridge GCE Advanced Level Examination or equivalent examination must meet the requirements stipulated in paragraph 1.1 above. However,

- Office Administration and Principles and Practice of Office Administration are not subjects acceptable for admission to the University, and

- Office Administration and Stenography, Shorthand and Typing, and Office Administration and Shorthand/Typewriting duties are counted as subjects at 'O' level irrespective of the level at which the applicant has passed the examination.

1.2 For GCE 'A' Level Holders (for Examinations taken from Year 2007 onwards)

Applicants who have taken the Singapore-Cambridge GCE Advanced Level Examination must have obtained:

a) passes in at least two subjects at H2 level and two subjects at H1 level including a pass in General Paper (or Knowledge and Inquiry at H2 level) taken at one and the same sitting of the examination;

b) a minimum of ‘S’ grade in a Mother Tongue Language (Chinese/Malay/Tamil) taken at the H1 level or pass in Mother Tongue Language ‘B’ taken in the GCE ‘A’ Level Examination, or a minimum grade of D7 in a first language (Higher Chinese/Higher Malay/Higher Tamil) taken at the GCE ‘O’ Level Examination

1.3 For International Baccalaureate Diploma Holders

A good overall International Baccalaureate Diploma score.

1.4 For NUS High School Diploma Holders

A good Graduation CAP.

1.5 For Polytechnic Diploma Holders

Any polytechnic diploma with good results.

1.6 For Nanyang Academy of Fine Arts (NAFA) Diploma Holders

Any NAFA diploma with good results.

1.7 For LASALLE College of the Arts Diploma Holders

Any LASALLE College of the Arts Diploma with good results.

1.8 For National Institute of Early Childhood Development Diploma Holders

Selected Diploma from the National Institute of Early Childhood Development with good results.

Other Requirements

Academic Discipline Minimum Requirements for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education Programmes

IMPORTANT NOTE

Meeting the minimum requirement for a specific academic subject does not guarantee the allocation of the academic subject.

Allocation of academic subject is dependent on ranking based on student teachers' qualifications and results (at the discretion of the department) as well as the availability of vacancies.

Art

A pass at GCE 'A' Level in Art
Or
A pass in H2 level in Art
Or
A pass at Higher level in Art (IB Diploma)
Or
At least a major CAP of 2.0 for NUS High School Diploma in Fine Art
Or
Art-Related Diploma from recognised colleges and polytechnics
Or
Candidates with 'A' Level or H2 level or Higher level (IB Diploma) from any discipline with strong art portfolios will be considered.
AND
Art Focused interview is compulsory for all applicants.

Biology

At least a Grade C at GCE 'A' Level in Biology
Or
At least a Grade C at H2 level in Biology
Or

At least a Grade 5 pass at Higher level in Biology (IB Diploma)
Or
At least a major CAP of 3.0 for NUS High School Diploma in Biology
Or
At least an overall CAP of 2.0 for NUS High School Diploma in Biology
Or
A good polytechnic diploma in the approved Biology-related disciplines.

Chemistry

At least a Grade C at GCE 'A' Level in Chemistry AND a pass at GCE 'AO' Level in Mathematics
Or
At least a Grade C at H2 level in Chemistry AND a pass in H1 level in Mathematics
Or
At least a Grade 5 pass at Higher Level in Chemistry (IB Diploma) AND a pass at Standard Level in Mathematics (IB Diploma)
Or
At least a major CAP of 3.0 for NUS High School Diploma in Chemistry AND an overall CAP of 2.0 for NUS High School Diploma in Mathematics
Or
A good polytechnic diploma in approved Chemistry-related disciplines.

Chinese Studies

A pass at GCE 'A' Level in Higher Chinese or Chinese Language
Or
A pass at GCE ‘A’ H3 or H2 Level in Chinese Language
Or
At least a Grade B4 pass at GCE 'AO' Level in Chinese Language
Or

At least a C grade at GCE ‘A’ H1 Level in Chinese Language
Or
At least a Grade B4 pass at GCE 'O' Level in Higher Chinese
Or
A pass at Higher Level Chinese (IB Diploma) or at least a grade 4 at Standard Level Chinese (IB Diploma)
Or
At least an overall CAP of 3.0 for NUS High School Diploma in Higher Chinese
Or
At least a CGPA of 3.0 for Diploma in Chinese Studies at the Ngee Ann Polytechnic
Or
A pass in the Chinese Qualifying Test conducted by NIE if the above requirements are not met.

Drama

No academic pre-requisites.

Applicants will be required to pass a group workshop-interview.

The interview will explore interest in and past experiences of Drama. Applicants are expected to be adventurous, imaginative and spontaneous.

English Language & Linguistics

A pass at GCE ‘A’ Level in General Paper
Or
A pass in Knowledge & Inquiry at H2 level
Or
A pass at Standard or Higher Level in English (IB Diploma)
Or
At least a Grade B3 pass at GCE ‘O’ level in English Language
Or
At least an overall CAP of 3.0 for NUS High School Diploma in English Language

Those who do not meet any of the above criteria must sit for and pass an English Language Qualifying Test*

** The English language Qualifying Test will be administered by NIE (ELL Dept).*

English Literature

No pre-requisites

Geography

No pre-requisites

History

No pre-requisites

Malay Studies

A pass at GCE 'A' Level in Higher Malay or Malay Language
Or
A pass at GCE ‘A’ H3 or H2 Level in Malay Language
Or
At least a Grade A2 pass at GCE 'AO' Level in Malay Language
Or
At least a Grade B pass at GCE ‘A’ H1 Level in Malay Language
Or
At least a Grade B3 pass at GCE 'O' Level in Higher Malay
Or
At Least a Grade A2 pass at GCE 'O' Level in Malay Language
Or
A pass at Higher Level Malay (IB Diploma) or at least a grade 6 at Standard Level Malay (IB Diploma)
Or
At least an overall CAP of 3.0 for NUS High School Diploma in Higher Malay
Or
At least an overall CAP of 3.5 for NUS High School Diploma in Malay
Or
At least a Grade B4 at Sijil Pelajaran Malaysia (SPM) in Malay Language
Or

A pass in the Malay Qualifying Test conducted by NIE if the above requirements are not met.

Mathematics & Computational Thinking

At least a Grade C at GCE 'A' level in Mathematics (Syllabus C)
Or
At least a Grade C at H2 level Mathematics
Or
At least a Grade C at GCE 'A' level in Further Mathematics
Or
At least a Grade C at H2 level Further Mathematics
Or
At least a Grade 5 pass at Higher Level Mathematics for IB holders.
Or
At least a major CAP of 3.0 for NUS High School Diploma in Mathematics
Or
Obtain a Grade A in H1 level Mathematics and will have to sit for and pass a Mathematics Qualifying Test
Or
Obtain at least a Grade B3 for Additional Mathematics at 'O' levels and will have to sit for and pass a Mathematics Qualifying Test

Music

All interested applicants, except diploma holders from NAFA or LaSalle, will attend an interview and audition comprising:

- A solo performance (with accompanist/s where applicable) on an instrument (or voice) of one or two prepared pieces amounting to 3-5 minutes from any genre/style.
- Musicianship tests which may include
  (i) Aural skills (e.g., singing back a melody that was played)
  (ii) Accompanying/improvising using pitched/unpitched instrument from any musical tradition

(iii) Music theory pegged at approximately Grades 5/6 of examination boards (e.g., ABRSM, Trinity)

Applicants are welcome to submit a music portfolio documenting their music/music education/relevant music-industrial experiences. These may include but are not limited to

- Evidence of active practical experience in music making (e.g., Western, Indian, Chinese, and Malay Music, Pop/Jazz, Concert Band, Choir)
- Presentation/s of compositions/arrangements/remixes if this is an area of interest and strength of the applicant (all forms of notation and audio-visual files are acceptable)
- Music certificates

Note: Applicants who do not have documentary evidence of their relevant musical experiences can speak about them during the audition/interview and may be requested to articulate their knowledge or demonstrate the appropriate skills.

Sport Science

A pass in the Physical Proficiency Test conducted by NIE.

Applicants should preferably also have strong CCA/Sports involvement in secondary school/JC/Polytechnic.

Physics & Energy Studies

At least a Grade C at GCE 'A' Level in Physics AND a pass at GCE 'AO' Level in Mathematics
Or
At least a Grade C at H2 level in Physics AND a pass in H1 level in Mathematics
Or
At least a Grade 5 pass at Higher Level in Physics (IB Diploma) and a pass at Standard Level in Mathematics (IB Diploma)
Or
At least a major CAP of 3.0 for NUS High School Diploma in Physics AND an overall CAP of 2.0 for NUS High School Diploma in Mathematics
Or

A good polytechnic diploma in approved Physics-related disciplines

Social Studies

No pre-requisites

Tamil Studies

A pass at GCE 'A' Level in Higher Tamil or Tamil Language
Or
A pass at GCE ‘A’ H3 or H2 level Tamil Language
Or
At least a Grade B3 pass at GCE 'AO' Level in Tamil Language
Or
At least a Grade C pass at GCE ‘A’ H1 level in Tamil Language
Or
At least a Grade B4 pass at GCE 'O' Level in Higher Tamil
Or
At Least a Grade B3 pass at GCE 'O' Level in Tamil Language
Or
A pass at Higher Level Tamil (IB Diploma) or at least a grade 6 at Standard Level Tamil (IB Diploma)
Or
At least an overall CAP of 3.0 for NUS High School Diploma in Higher Tamil
Or
At least an overall CAP of 3.0 for NUS High School Diploma in Tamil
Or
At least a Grade B4 at Sijil Pelajaran Malaysia (SPM) in Tamil Language
Or
A pass in the Tamil Qualifying Test conducted by NIE if the above requirements are not met.

Second Language Requirements

Applicants who do not satisfy the requirements for second language as set out in paragraph 1.1(b) under entry

requirements may still submit an application for admission. If selected, such applicants will be admitted to the University on a provisional basis. During their programme of study in the University, they will be required to meet the requisite minimum language requirements before they are allowed to graduate.

Suitability Tests

Applicants may, at the discretion of the Singapore Ministry of Education and the University, be required to undergo such tests as may be set to assess their suitability for University study and teacher-training and to appear for interviews.

Matriculation and Registration

Matriculation will take place before Semester I. Students are to refer to the Course Registration schedule posted on the Intelligent Launchpad for registration of courses offered in Semesters I and II.

Students can register for or drop a course offered in the semester during the Add/Drop period of that semester. A course that is dropped before the end of the Add/Drop period will not appear in the student's official transcript.

A student who drops a course after the Add/Drop deadline will be deemed to have sat and failed in the course. 'F' will appear on the official transcript and will be used in the computation of Cumulative Grade Point Average (CGPA).

Please note that when the practicum is held in the June/July period (e.g. Teaching Assistantship) at the end of an academic year, that is, before the start of a new academic year, students must register for the practicum course in Semester 1 of the new academic year (that is, during the July rather than December registration exercise). As course registration typically takes place in June, therefore, registration for that practicum posting is done in the June course registration exercise.

Enrolment

Although students can usually read the subject/courses of their own choice, the final choice of subjects/courses sometimes has to be determined by the Dean, Teacher Education & Undergraduate Programmes/Department Head/Course coordinator concerned. Students are responsible for ensuring that the courses they select do not clash on the class time-table and the examination time-table, which are both released before the registration exercise.

Examinations, Assessment of Coursework & Practicum

Different modes of assessment including Continuous Assessment (CA) have been built into coursework. These include test/practical test, written assignments, project work, and examinations. Examinations will be held at the end of each semester. No special examination will be held for students who are not able to take any paper because of illness or other special reason. Such students and those who fail will be allowed to take the examination in that course on the next occasion when it is conducted.

Students must successfully complete all the prescribed academic unit requirement as set out by the programme curriculum and earn a minimum Cumulative Grade Point Average (CGPA) of 2.00 at the end of the final semester of study before qualifying for the award of the degree of Bachelor of Arts/Science (BA/BSc) (Academic Discipline & Education). Students are responsible for ensuring that they register for all the courses and examinations necessary to fulfil the requirements of their programme of study.

Students are not allowed to re-take an examination in order to improve on the grades of courses they have passed. The grades for a course taken by any student in all attempts are reflected on the official transcript, unless FGO is applied on a failed course. The degree classification will be based on the CGPA students obtain throughout their programme of study as well as performance in Practicum. Credits earned in other approved institutions will be excluded from CGPA computation.

The Period of candidature for each programme is as follows:

Programme	Period of candidature (Years)		
	Normal	Minimum	Maximum
BA/BSc in an Academic Discipline and in Education	4	3½	6
BA/BSc in an Academic Discipline and in Education Admitted in Year 2	-	2½	5

Grade Point Average (GPA) System

The Institute adopts the Grade Point Average (GPA) system with effect from the academic year 2005-2006.

1 Grade and grade points are assigned as follows:

Letter-Grade	Grade Point	Academic Unit (AU)
A+	5.00	AU is earned
A	5.00	
A-	4.50	
B+	4.00	
B	3.50	
B-	3.00	
C+	2.50	
C	2.00	
D+	1.50	
D	1.00	
F	0.00	No AU is earned

2 The following grades and notations are also used but will not be counted in computation of CGPA.

*	-	Courses with Pass/Fail grading only
IP	-	In-Progress
ABS	-	Leave of absence (with valid reasons)
TC	-	Transfer Credit
DIST/CR/P/F	-	Distinction/Credit/Pass/Fail

3 The Cumulative Grade Point Average (CGPA) represents the grade average of all courses (including failed courses) attempted by a student teacher. Only letter-graded courses (i.e. courses with grades A+, A, A-, B-…) are included in the computation of CGPA.

The computation of CGPA is as follows:

$$\frac{[\text{Grade Point} \times \text{AU for course 1}] + [\text{Grade Point} \times \text{AU for course X}] + \ldots\ldots}{[\text{Total AU attempted in all the semesters so far}]}$$

4 The CGPA will be reflected on student teachers' transcripts.

5 An 'F' grade obtained in a course, and a new grade attained for the subsequent repeat, will be both reflected in the transcript. Both grades will also be counted in the computation of CGPA. No AU is earned for courses with 'F' grade.

6 Students are not allowed to repeat any courses taken except those with 'F' grade.

7 The requirements for graduation are as follows:

a) Fulfil the residential requirements (i.e. minimum years of study at NIE/NTU)

Programme: BA/BSc DMP	**Minimum Years of Study At NIE/NTU**
• For student teachers admitted in Year 1	3 academic years
• For student teachers admitted directly into Year 2	2½ academic years

b) Successful completion of the prescribed academic unit requirement as set out by the programme curriculum.

c) Fulfil the minimum AU requirements for letter-graded and ITP Practicum Graded courses.

Minimum Letter-Graded and *ITP Practicum Graded AU:	**4-year programmes**
	For student teachers admitted in Year 1 and directly into Year 2
For entire programme	69 AU
For Major Core and MPE courses	48 AU

* ITP Practicum Graded include courses graded Distinction/Credit/Pass/Fail, e.g. Teaching Practice 2 and Year-3 Educational Research Project.

d) A minimum CGPA of 2.00 is required at the end of the final semester of study.

8 The criterion for satisfactory academic standing in any given semester is a minimum CGPA of 2.00.

9 Students with poor standing will be subjected to the following performance review:

a) Academic Warning – if the CGPA falls below 2.00 for any given semester.

b) Academic Probation – if the CGPA falls below 2.00 for the following semester.

c) Academic Termination – if the CGPA falls below 2.00 for the 3rd consecutive semester, or at the end of the final semester of study. A letter of termination will be issued.

Appeal against termination on the grounds of extenuating circumstances may be made, subject to the following rules:

- the appeal must be submitted to NIE within 2 weeks after release of semester examination results or before the start of the next semester, whichever is earlier.
- only one appeal is allowed per candidature.

10 A minimum CGPA of 2.00 must be maintained at the end of each semester to qualify for the overloading of courses.

11 Credits for courses taken from approved student exchange programmes will be excluded from the CGPA computation. But they will be counted toward the academic unit requirement for graduation and be reflected on the transcript.

12 The cut-off for classification in the Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education programmes is as follows:

Class of Award	CGPA Range	Minimum Final Practicum Grade *
Honours (Highest Distinction)	4.50 – 5.00	Credit
Honours (Distinction)	4.00 – 4.49	Pass
Honours (Merit)	3.50 – 3.99	Pass
Honours	3.00 – 3.49	Pass

Pass	2.00 – 2.99	Pass

* The final Practicum Grade is based on the grade obtained at the first attempt for Teaching Practice 2. A student teacher who fails at the first attempt for Teaching Practice 2 but subsequently passes it is only eligible for the Pass Award for the Degree regardless of the grade obtained for repeat Teaching Practice 2 and the CGPA obtained.

Flexible Grading Option

1 As part of the University's ongoing commitment to education transformation, the Flexible Grading Option (FGO) is expanded effectively from AY2025-26 Semester 2 to better support students' transition to university life and give students greater ownership of their academic journey. FGO allows students to convert the grades of eligible courses to Pass or No Record grades, which are excluded from the student's cumulative GPA (CGPA). Students can declare the FGO on eligible courses taken in any semester during any declaration period before their graduation, subject to the quota of FGO Academic Units (AU) for their degree programmes.

2 After declaration, earned letter grades of A, B, C, and D will be converted to a Pass grade (P), and grade F will be converted to a No Record grade (NR). Following the declaration, students' CGPA for the latest semester will be recomputed to reflect the FGO-declared courses. Students will only receive AU for FGO-declared courses with Pass grades. Pass (P) grades will be reflected in internal and external academic documents i.e. Academic Progress Report (APR), Notification of Examination Results, and Transcript. No Record (NR) grades will be reflected in internal academic documents like the APR for tracking purposes. However, the course record (including the course title and grade) will not appear in external academic documents like the Notification of Examination Results and Transcript.

3 The FGO is only applicable to Interdisciplinary Collaborative Core (ICC), (NIE) Academic Discipline/Primary Level Subject Minors (Minor Core) and Broadening and Deepening Electives.

4 For second major (note: Education Major is not second major), up to 12 AU of courses can be non-letter graded, which may include courses declared for FGO. For Minors (including the (NIE) Academic Discipline Minor), up to 6 AU

of courses can be non-letter graded, which may include courses declared for FGO.

5 The maximum number of AU that a student teacher can declare FGO on during their candidature is as follows:

Programme: BA/BSc DMP	**FGO Quota (AU)**	
	ICC, Minor Core and BDE	**Cap on ICC and Minor Core**
For full-time students admitted to Year 1	Up to 24 AU	Maximum of 12 AU of which maximum 6 AU can be from Minor Core
For full-time students admitted to Year 2 (Upgraders)	Up to 15 AU	Maximum of 9 AU of which maximum 6 AU can be from Minor Core

6 Students will have to submit their FGO declarations within the stipulated period after the release of course results. No late FGO declarations shall be accepted.

7 FGO declarations are irrevocable once submitted. Students are strongly advised not to rush their FGO declarations, and they should carefully consider their upcoming academic plans and milestones before submitting their declaration. These include applications for exchange programmes, internships, or full-time job applications, and graduation honours classification, etc.

8 FGO quota is deducted per course attempt. Each time FGO is declared on a course, the AU for that attempt is deducted from your quota.

9 Students who exercise the FGO must comply with the graduation requirement of minimum AU of letter-graded courses as stated in Section 7(c) under the section on GPA System.

Academic Integrity

The Institute advises all students to respect all copyrighted works and encourages the purchase of original textbooks and/or other copyrighted materials that are required for their programme of study. Students should not plagiarize or pass off as one's own, the writing or ideas of another, without acknowledging or crediting the source from which the ideas are taken.

The Institute takes a serious view of any form of plagiarism and infringement of copyright by student teachers. A contravention of the provisions of the Copyright Act is deemed to be a breach of the Institute's rules and regulations, which could result in disciplinary action. Cheating, plagiarism and other forms of academic dishonesty are considered serious offences for which disciplinary penalties will be imposed.

Please refer to the NIE Academic Integrity Framework available on the Intelligent Launchpad for the latest details.

Research

Through research projects, students acquire an understanding of the purposes, processes and outcomes of academic and educational research. Various course-level research assignments and the final-year Academic Exercise in students' Academic Discipline major will prepare them for postgraduate studies in the academic discipline later.

In addition, Educational Research Project, an introductory research course offered in year three, provides an opportunity for student teachers to be guided by NIE faculty members as they explore a topic of mutual interest and experience the educational research process.

Undergraduate Research Experience on CAmpus (URECA) (NE5915 / NE5916)

URECA is a university wide undergraduate research programme to cultivate a research culture among undergraduates who have achieved an excellent academic standing. In this programme, undergraduates will gain invaluable hands-on research experience under the mentorship of faculty of their choice in their chosen field of research over a period of 11 months. The foundations of research experience and practical skills gained through URECA prepares undergraduates for postgraduate research studies or career in research. Undergraduates with high achievement will be awarded the URECA Undergraduate Research Excellence URECA Awards together with the coveted title of NTU President Research Scholar.

The Meranti Project

The Meranti Programme is named after the Meranti tree, a rainforest tree which is native to Singapore and the region. This tree produces resilient and valuable hardwood timber. Growing strong and tall in the forest, it provides shelter and home for other plants and animals. It is envisioned that student teachers emerging from the Meranti experience will carry with them resilience and hope so that they can provide a conducive environment for students to thrive and grow. This programme serves to promote both personal and professional development. This is accomplished through open sharing sessions and activities to help student teachers experience the core competencies of social and emotional learning. Student teachers will have the opportunity to share their personal aspirations with their peers and express their opinions in an open and supportive environment.

The programme aims to help student teachers develop better self-awareness, learn better ideas of working with diversity in the classroom. Student teachers will learn strategies for coping with being a teacher and gain an affirmation of choosing teaching as a profession. Values and skills to be inculcated and developed are based on the MOE's 21st Century Competencies and Student Outcomes, NIE's Attributes of 21st Century Teaching Professional (V^3SK model) and the Graduand Teacher Competencies.

Certificate in English Language Studies (CELS)

The Certificate in English Language Studies (CELS) courses are part of MOE's requirements for all undergraduate students on the primary track who take English language as Curriculum Studies (CS) course but not as an Academic Subject. It is an additional separate suite of courses that complements their existing Bachelor's degree programme. The courses were developed as a response to MOE's English Language Curriculum and Pedagogy Review in 2006 which found that English language teachers who did not take English language as Academic Studies (AS) courses needed further English language content knowledge and improved language proficiency to support their professional development and confidence as English language teachers. The review findings still hold true as the target students are diploma crossovers, upgraders, and occasionally, students on the Teaching Scholars' Programme (TSP) without basic subject knowledge of English language and sometimes, the language skills necessary for English language teachers. The courses, thus, provide students with crucial basic knowledge of the systems of language, linguistics, children's literature, and language skills necessary to benefit fully from the Subject Knowledge (SK) courses and CS courses in their degree programme to teach English language confidently.

Building University Interns for Leadership Development

The BUILD (Building University Interns for Leadership Development) programme provides a structured process for the student teachers to gain invaluable benefits from learning and serving with a relevant institution, organisation, agency or company. This will prepare them well for their future roles as educational leaders.

The BUILD Programme encompasses a 5-week internship stint that challenges student teachers to apply the knowledge learnt in the university to situations beyond the classrooms when they work on specific project(s) in their internship organisation. In the process, they learn about corporate perspectives and practices, thereby broadening their own perspectives as educators and acquiring life-skill competencies in their personal growth.

GEM Explorer

The GEM Explorer Programme allows students to spend one semester in an overseas university to read courses which may be counted towards their programme requirements in Nanyang Technological University, Singapore. However, students must fulfil a minimum residential requirement of 69 graded AUs at NIE or NTU before applying. Grades obtained for credits earned in other institutions do not count towards the classification of the degree awarded.

The programme is open to NIE Year 3 student teachers. Those interested should speak with the Assistant Dean, Partnerships, and/or the Assistant Dean, Undergraduate Programmes, at the Office of Teacher Education & Undergraduate Programmes.

For foreign universities that currently have memoranda of agreement with NTU, students will not need to pay fees to the foreign universities while studying there. This means NIE student teachers are required to pay only for travel, accommodation, insurance, books, and living expenses while on the GEM Explorer Programme.

Student teachers interested in applying for the GEM Explorer Programme are required to submit an online application form via the NTU Office of Global Education and Mobility (OGEM) (https://www.ntu.edu.sg/education/student-exchanges/gem-explorer). If you have any queries, email to stdexchange@nie.edu.sg.

NIE International Practicum

The NIE International Practicum Programme allows student teachers to participate in a 5-week overseas Teaching Assistantship which will be counted towards their programme requirements in Nanyang Technological University, Singapore.

The programme is open to NIE Year 2 student teachers. Those interested should speak with the Assistant Dean, Partnerships, at the Office of Teacher Education & Undergraduate Programmes.

NIE student teachers attached to schools for International Practicum will not need to pay fees to foreign universities if these foreign universities have current memoranda of agreement (MOAs) with NIE. This means that NIE student teachers are required to pay only for travel, accommodation, insurance, books, and living expenses during the International Practicum.

NIE student teachers interested in applying for the International Practicum Programme are required to submit an online application form via NTU Terra Dotta (https://gem.ntu.edu.sg). If you have any queries, email to stdexchange@nie.edu.sg.

NIE-administered Semester Exchange

The NIE-administered Semester Exchange allows student teachers to spend one semester in an overseas university to read courses which may be counted towards their programme requirements in Nanyang Technological University, Singapore. However, student teachers must fulfil a minimum residential requirement of 69 AUs at NIE or NTU before applying. Grades obtained for credits earned in other institutions do not count towards the classification of the degree awarded.

The programme is open to NIE Year 3 student teachers. Those interested should speak with the Assistant Dean, Partnerships and/or the Assistant Dean, Undergraduate Programmes at the Office of Teacher Education & Undergraduate Programmes.

For foreign universities that currently have memoranda of agreement (MOAs) with NIE, student teachers will enjoy a tuition fee waiver while studying there. This means NIE student teachers are required to pay only for travel, accommodation, insurance, books, and living expenses while on the NIE-administered Semester Exchange.

NIE student teachers interested in applying for the NIE-administered Semester Exchange are required to submit an online application form via NTU Terra Dotta (https://gem.ntu.edu.sg). If you have any queries, email to stdexchange@nie.edu.sg.

NIE Singapore Undergraduate Online

The NIE Singapore Undergraduate Online allows student teachers to read up to two courses which may be counted towards their programme requirements in Nanyang Technological University, Singapore. Grades obtained for credits earned do not count towards the classification of the degree awarded.

The programme is open to all NIE and NTU students. Those interested should speak with the Assistant Dean, Partnerships and/or the Assistant Dean, Undergraduate Programmes at the Office of Teacher Education & Undergraduate Programmes.

NIE Singapore Undergraduate Online is a **fee-paying programme**. Students are required to pay course fees.

NIE and NTU students interested in applying for the NIE Singapore Undergraduate Online are required to submit an online application form via NTU TMS (https://tms.ntu.edu.sg). If you have any queries, email to stdexchange@nie.edu.sg.

NIE-administered Summer/ Winter Programme

The NIE-administered Summer/Winter Programme allows student teachers to spend between two weeks to a month in an overseas university to read courses which may be counted towards their programme requirements in Nanyang Technological University. Grades obtained for credits earned in other institutions do not count towards the classification of the degree awarded.

The programme is open to NIE Year 2 to 3 student teachers. Those interested should speak with the Assistant Dean, Partnerships and/or the Assistant Dean, Undergraduate Programmes at the Office of Teacher Education & Undergraduate Programmes.

The NIE-administered Summer/Winter Programme is a **fee-paying programme**. Student teachers are required to pay course fees to the host university.

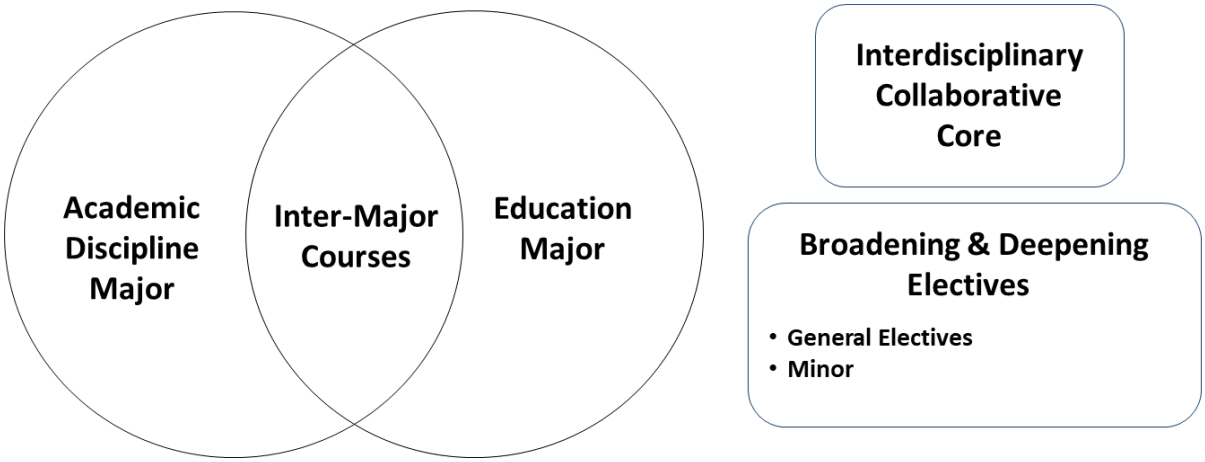
NIE student teachers interested in applying for the NIE-administered Summer/Winter Programme are required to submit an online application form via NTU Terra Dotta (https://gem.ntu.edu.sg). If you have any queries, email to stdexchange@nie.edu.sg.

Academic Structure of Programmes

Structure of NIE Double Major Programmes

STRUCTURE OF PROGRAMMES

The Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education programmes are double major programmes, each with a major being an Academic Discipline, and another major in Education. In addition, it integrates a second Academic Discipline as a Minor.



A. ACADEMIC DISCIPLINE MAJOR

This area of study covers the subject knowledge and skills of the academic discipline in question. It equips student teachers with the disciplinary foundation for postgraduate studies as well as the subject knowledge and skills bases to teach the subject.

All BA student teachers preparing to teach in the Secondary level must read an Arts subject as the Academic Discipline Major with a choice of an Arts or Science subject as the Academic Discipline Minor. Similarly, all BSc Secondary-track student teachers must choose a Science subject as Academic Discipline Major with a choice of an Arts or Science subject as Academic Discipline Minor. (Please refer to the section on Academic Disciplines for the lists of subjects for the different programmes.)

Part of the Academic Discipline requirements is fulfilled by Inter-Major courses.

B. EDUCATION MAJOR

This area of study comprises the following:

a. Education Studies

This area of study covers key concepts, principles and theories in education that are necessary for effective teaching in Singapore primary and secondary schools.

b. Curriculum Studies

This area of study covers subject-specific teaching methodologies and pedagogical skills appropriate to either the primary or secondary school level in the Singapore school context. The choice of Curriculum Studies (CS) is based on the student teachers' teaching level (primary or secondary) and teaching subjects.

Primary Track

General	Any 2 CS subjects from o Art o English Language o Mathematics o Music o Science o Social Studies
Chinese Studies specialisation	CS1: Chinese Language CS2: Character and Citizenship Education (Chinese)
Malay Studies specialisation	CS1: Malay Language CS2: Character and Citizenship Education (Malay)
Tamil Studies specialisation*	CS1: Tamil Language CS2: Character and Citizenship Education (Tamil) and Tamil Literature
Sport Science Specialisation	CS1: Physical Education CS2: Any CS subject (if not selected as CS1): o English Language o Mathematics o Music o Science o Social Studies

Secondary Track

General	Student teachers will read 2 CS subjects which are aligned with the choice of Academic Disciplines chosen. CS1 will align with AD Major while CS2 will be aligned with AD Minor. For a full list of AD subjects, see section on Academic Disciplines.

Chinese Studies specialisation	CS1: Chinese Language CS2: Chinese Literature
Malay Studies specialisation	CS1: Malay Language CS2: Malay Literature
Tamil Studies specialisation*	CS1: Tamil Language CS2: Character and Citizenship Education (Tamil) and Tamil Literature
Sport Science specialisation	CS1: Physical Education CS2: aligned with AD Minor

* Student teachers specialising in Tamil Studies will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

c. Practicum

Practicum courses are compulsory for all student teachers.

Teaching Practicum is a very important component of the degree programme. Student teachers will apply their knowledge and skills for the teaching subjects they are trained in and develop their teaching competencies in a variety of instructional contexts and at different levels under the guidance and supervision of cooperating teachers, school coordinating mentors and university lecturers. They will learn from experienced school mentors about the schooling process and prepare themselves for their roles and responsibilities in teaching.

Practicum is developmental in nature. It comprises four school attachment periods of varying durations, i.e., School Experience (SE), Teaching Assistantship, Teaching Practice 1 and Teaching Practice 2.

For all teaching attachments, except SE, student teachers will be closely supervised by university lecturers and will also learn from experienced teachers in the schools about the schooling process. They will use the knowledge and skills obtained from the Education Studies (ES) and Curriculum Studies (CS) courses to integrate theory with practice.

C. INTER-MAJOR

Inter-major courses are either relevant to both the Academic Discipline and Education majors (Academic Discourse Skills) or integrate the double-major learning whereby one

major lies at the backdrop of the other (Academic Exercise, and Educational Research Project), or both majors are synthesized to inform the application (Teaching Practice 2).

Note: With approval, student teachers may take URECA in place of Educational Research Project.

D. INTERDISCIPLINARY COLLABORATIVE CORE (ICC)

ICC courses focus on key transferable skills and global challenges using an interdisciplinary and collaborative approach to learning.

a. Communication Skills for Teachers
b. Group Endeavours in Service Learning (GESL)
c. Ethics and Social Contexts of Education
d. Multicultural Studies
e. Sustainability: Society, Economy & Environment
f. Digital Literacy

E. BROADENING & DEEPENING ELECTIVES (BDE)

a. (NIE) Minor

To meet the teaching demands in the Singapore school system, a second Academic Discipline is built into the Double Major Programmes in the form of a Minor. These Minors, which must be different from the Academic Discipline Major for the student, are exclusively offered in NIE's Double Major Programmes.

Student teachers in the Primary track are required to read a Minor in "Primary Level Subject (NIE)" that is aligned with their two Curriculum Studies (CS) subjects.

Student teachers in the Secondary track are required to read a Minor corresponding to their second Curriculum Studies (CS) subject.

Academic Discipline Minors	
Art (NIE)	History (NIE)
Biology (NIE)	Malay Literature (NIE)
Chemistry (NIE)	Mathematics & Computational Thinking (NIE)
Chinese Literature (NIE)	Music (NIE)

Drama (NIE)	Physics & Energy Studies (NIE)
English Language & Linguistics (NIE)	Social Studies (NIE)
English Literature (NIE)	Tamil Literature & CCE (NIE)
Geography (NIE)	Primary Level Subjects (NIE) [#]

[#] Minor in Primary Level Subjects (NIE) will be awarded exclusively to student teachers in the Primary track, except for student teachers reading Chinese Studies / Malay Studies / Tamil Studies as an Academic Discipline Major.

In addition to the Minors offered above, NIE also offers a suite of Minors for students who wish to broaden or deepen their learning beyond their main programme.

List of other Minors offered by NIE:

Minor Programme	**Offered to Students of the following Programmes**
Drama and Performance	All except: NIE BA/BSc (Acad Dspln & Ed) student teachers doing Drama as an Academic Discipline Major
Early Childhood Education	All students
Education Studies	All except: NIE BA/BSc (Acad Dspln & Ed) student teachers
English Language	All except: NIE BA/BSc (Acad Dspln & Ed) student teachers who are reading English Language & Linguistics as an Academic Discipline Major or Minor Linguistics & Multilingual Studies - LMS Psychology and Linguistics and Multilingual Studies - PSLM Minor in Linguistics and Multilingual Studies
Music	All students except NIE BA/BSc (Acad Dspln & Ed) student teachers doing Music as an Academic Discipline Major
Science of Learning	All students
Special Needs Education	All students
STEM Education	All students
Youth Work and Guidance	All students

For more information on NTU/NIE minors, please refer to: https://www.ntu.edu.sg/education/degree-programmes#Content_C109_Col03

b. Other Broadening & Deepening Electives (BDE)

In addition to the core courses and the required number of prescribed electives, student teachers must read 3-6 AUs of other BDEs (previously known as General Electives for July 2022 intake and earlier) which can be chosen from courses offered by the University, whether within or outside the Institute.

Student teachers in the BA in Chinese Studies and Education (Primary), BA in Malay Studies and Education (Primary), and BA in Tamil Studies and Education (Primary/Secondary) programmes will have to read 3 AUs of other BDEs, while other BA/BSc (Academic Discipline & Education) student teachers will have to read 6 AUs.

Teaching scholars will complete an additional 12 AUs of BDE courses, including one compulsory course.

Total AUs of other BDEs for NIE BA/BSc Student Teachers

<table>
<tr><th>Track</th><th>Programmes</th><th>Required AUs</th><th>Additional AUs for
<u>NTU-NIE TSP</u></th></tr>
<tr><td rowspan="5">Pri</td><td>Chinese Studies and Education</td><td rowspan="3">3 AUs</td><td rowspan="9">12 AUs
TSP student teachers are required to complete additional 12 AUs of BDEs beyond the required AUs.

AED28S Ethics and Leadership, is a compulsory BDE within the additional 12 AUs.</td></tr>
<tr><td>Malay Studies and Education</td></tr>
<tr><td>Tamil Studies and Education</td></tr>
<tr><td>Sport Science and Education</td><td rowspan="2">6 AUs</td></tr>
<tr><td>Other Double Major Programmes</td></tr>
<tr><td rowspan="5">Sec</td><td>Tamil Studies and Education</td><td>3 AUs</td></tr>
<tr><td>Chinese Studies and Education</td><td rowspan="4">6 AUs</td></tr>
<tr><td>Malay Studies and Education</td></tr>
<tr><td>Sport Science and Education</td></tr>
<tr><td>Other Double Major Programmes</td></tr>
</table>

Summary

To graduate, student teachers must complete the five categories of courses:

- Academic Discipline Major
- Education Major

- Inter-Major
- Interdisciplinary Collaborative Core (ICC)
- Broadening & Deepening Electives (BDE) comprising:
    - an (NIE) Minor
    - other BDEs

Note: The number of AUs each category requires is dependent on the programme enrolled.

Curriculum Structure for Bachelor of Arts in an Academic Discipline and in Education (Primary) (General) Programmes

Student teachers enrolled in the Bachelor of Arts in an Academic Discipline and in Education (Primary) (General) programmes will follow the curriculum structure shown in Table 1 below:

Table 1: Curriculum Structure for Bachelor of Arts in an Academic Discipline and in Education (Primary) (General) Programmes

Year 1

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR (Select 1 subject area*)			
ACADEMIC DISCIPLINE			
AD Major		An Arts Subject *	12
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED00C[#]	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
CURRICULUM STUDIES (Select any 2 Curriculum Studies areas)			
Music	ACI10C	Music and Movement in the Inclusive Classroom	3
PRACTICUM			
	APR10A	School Experience	0
INTER-MAJOR			
	ALS10A	Academic Discourse Skills	3
INTERDISCIPLINARY COLLABORATIVE CORE			
	ALK10B	Communication Skills for Teachers	2
	AED10H/ AED10J[1]	Group Endeavours in Service Learning	3/ 2
	CC0006	Sustainability: Society, Economy and Environment	3
	HY0003	Ethics and Social Contexts of Education	2
BROADENING & DEEPENING ELECTIVES			
PRIMARY LEVEL SUBJECTS (Aligned with Curriculum Studies Subjects)			
Art	ASA10B	Twenty-First Century Learning through Theatre and Drama	3
English Language	ASE10A	Grammar	2
Mathematics	ASM10C	Number Topics	2
	ASM10D	Geometry Topics	2
Science	ASK10B	Topics in Physical Science for Primary Science Teaching	3

Category/ Subject	Course Code	Title	No. of AUs
Social Studies	ASL10A	Disciplinary Foundations in Primary Social Studies: Geography	3
	ASL10B	Disciplinary Foundations in Primary Social Studies: History	3

* AD Major: Select 1 from the following list of Arts Subjects:
Art, Drama, English Language & Linguistics, English Literature, Geography, History, Music.

\# AED00C spans the entire duration of the BA/BSc (Acad Dspln & Ed) programmes.

1 AED10H (3AU) will be taken by student teachers who are admitted via Year 1. AED10J (2AU) will be taken by students who are admitted in Year 2 via Direct Entry.

Note: In addition to the core courses and the required number of prescribed electives, student teachers doing English Language as a Curriculum Studies (CS) subject but not reading English Language & Linguistics as an Academic Discipline are required by Ministry of Education to undertake a compulsory Certificate in English Language Studies (CELS).

Year 2

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR (Select 1 subject area) *			
ACADEMIC DISCIPLINE			
AD Major		An Arts Subject *	18
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED20A	Teaching and Managing Learners at the Primary Level	2
	AED20D	Assessing Learning and Performance	1
	AED20E	Designing Future-Ready Learning with Technology	2
CURRICULUM STUDIES (Select any 2 Curriculum Studies areas)			
Art	ACA20A	Concepts and Practices in Art Education	3
English Language	ACE20B	Teaching Reading and Writing in a Multilingual Context (Lower Primary)	3
Mathematics	ACM20A	The Teaching and Learning of Primary Mathematics I	3
Music	ACI20C	Popular Music Pedagogies	3
Science	ACS20A	Curriculum and Practices for Primary Science	3
Social Studies	ACL20A	Teaching Social Studies in the Primary Classroom	3
PRACTICUM			
	APR20A	Teaching Assistantship	3
INTERDISCIPLINARY COLLABORATIVE CORE			
Select 1 digital literacy prescribed elective +^	AED23 K/L/M	Digital Literacy for the Net Generation / Digital and Media Literacy / Computer Literacy through Coding and Applications	3
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
BROADENING & DEEPENING ELECTIVES			
PRIMARY LEVEL SUBJECTS (Aligned with Curriculum Studies Subjects)			
English Language	ASE20A	Exploring Language in Texts	2

* AD Major: Select 1 from the following list of Arts Subjects:
Art, Drama, English Language & Linguistics, English Literature, Geography, History, Music.

\+ Select 1 course from the following choices:
AED23K or AED23L or AED23M

^ Student teachers reading a Minor in Mathematics & Computational Thinking must take AED23M Computer Literacy through Coding and Applications.

Year 3

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR *			
ACADEMIC DISCIPLINE			
AD Major		An Arts Subject *	9
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED30D	Supporting Diversity at the Primary Level	1
	AED30E	Pedagogical Practices	1
CURRICULUM STUDIES (Further studies in selected Curriculum Studies subjects)			
Art	ACA30A	Children and Adolescent's Artistic Development and its Implications for Teaching	3
English Language	ACE30B	Teaching Reading and Writing in a Multilingual Context (Upper Primary)	3
Mathematics	ACM30A	The Teaching and Learning of Primary Mathematics II	3
Music	ACI30C	Instrumental and Singing Skills for the Music Classroom	3
Science	ACS30A	Pedagogies for Primary Science	3
Social Studies	ACL30A	Inquiry in Primary Social Studies	3
PRACTICUM			
	APR30A	Teaching Practice 1	5
INTER-MAJOR			
	AED40A	Educational Research Project^	3
BROADENING & DEEPENING ELECTIVES			
PRIMARY LEVEL SUBJECTS (Aligned with Curriculum Studies Subjects)			
Art	ASA30B	Pedagogical Practices in Art Classroom	3
OTHER BROADENING & DEEPENING ELECTIVES @			
Other BDEs			6

* AD Major: Select 1 from the following list of Arts Subjects:
Art, Drama, English Language & Linguistics, English Literature, Geography, History, Music.

@ Student teachers are required to read 6 AUs worth of other BDEs in total.

^ AED40A span two semesters.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR *			
ACADEMIC DISCIPLINE			
AD Major		An Arts Subject *	9
EDUCATION MAJOR			
CURRICULUM STUDIES (Further studies in selected Curriculum Studies subjects)			
Art	ACA40A	Teaching of Art in the Classroom	3
	ACA40B+	Curriculum and Assessment in Art	3
English Language	ACE40C	Teaching Speaking and Listening in a Multilingual Context (Lower and Upper Primary)	3
	ACE40D+	Approaches to Teaching English in a Multilingual Context	3
Mathematics	ACM40A	The Teaching and Learning of Primary Mathematics III	3
	ACM40B+	Assessment Literacy for The Primary Mathematics Classrooms	3
Music	ACI40H+	Creativity in Music Education	3
Science	ACS40A	Innovations in Design and Practices for Primary Science	3
	ACS40B+	Meeting Learners' Needs in Primary Science	3
Social Studies	ACL40A	Managing Diversity in the Social Studies Classroom	3
	ACL40B+	Curriculum Leadership in Primary Social Studies	3
INTER-MAJOR			
ACADEMIC EXERCISE			
		Academic Exercise (aligned with AD Major*)	6
PRACTICUM			
	APR40A	Teaching Practice 2	10
BROADENING & DEEPENING ELECTIVES			
PRIMARY LEVEL SUBJECTS (Aligned with Curriculum Studies subjects)			
English Language	ASE40B	Current Trends in English Language Education in the Primary School	2
Mathematics (For non-MCT Major student teachers)	ASM40A	Further Mathematics Topics	2
Music	ASI40A	Composing	3
	ASI40B	Ethnomusicology	3
Science (For non-Biology Major student teachers)	ASK40B	Topics in Biological Science for Primary Science Teaching	3

* AD Major: Select 1 from the following list of Arts Subjects:
Art, Drama, English Language & Linguistics, English Literature, Geography, History, Music.

\+ Offered to CS1 student teachers. CS2 student teachers may approach the course coordinator if they wish to sit in for the course.

AUs overview for Bachelor of Arts in an Academic Discipline and in Education (Primary) (General)

Group of Courses	No. of AUs
ACADEMIC DISCIPLINE MAJOR	
Academic Discipline	48
EDUCATION MAJOR	
Education Studies	12
Curriculum Studies • CS1 • CS2	 12 9
Practicum • School Experience • Teaching Assistantship • Teaching Practice 1	 0 3 5
INTER-MAJOR	
• Academic Exercise • Academic Discourse Skills • Education Research Project	6 3 3
Practicum • Teaching Practice 2	 10
INTERDISCIPLINARY COLLABORATIVE CORE	
• Communication Skills for Teachers • Digital Literacy • Ethics and Social Contexts of Education • Group Endeavors in Service Learning • Multicultural Studies • Sustainability: Society, Economy and Environment	2 3 2 3/2 3 3
BROADENING & DEEPENING ELECTIVES	
Primary Level Subjects (aligned with Curriculum Studies) • PLS1 • PLS2	 9 6
Other Broadening & Deepening Electives • Regulars and Upgraders; or • TSP	 6 / 18

Curriculum Structure for Bachelor of Arts in Chinese / Malay / Tamil Studies and Education (Primary) Programme

Student teachers enrolled in the Bachelor of Arts in Chinese / Malay / Tamil Studies and Education (Primary) programme will follow the curriculum structure shown in Table 2 below:

Table 2: Curriculum Structure for Bachelor of Arts in Chinese / Malay / Tamil Studies and Education (Primary) Programme

Year 1

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Chinese Studies	18
		Malay Studies	15
		Tamil Studies	18
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED00C[#]	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
CURRICULUM STUDIES 1			
CS1: Tamil Language	ACT10A	Assessment in Tamil Language Teaching	3
CURRICULUM STUDIES 2			
CS2: CCE (Tamil) & Tamil Literature	ACK10A	Introduction to CCE: Content, Curriculum, Pedagogy and Assessment	3
PRACTICUM			
	APR10A	School Experience	0
INTER-MAJOR			
	ALS10A	Academic Discourse Skills	3
INTERDISCIPLINARY COLLABORATIVE CORE			
	ALK10B	Communication Skills for Teachers	2
	AED10H/ AED10J[1]	Group Endeavours in Service Learning	3/ 2
	CC0006	Sustainability: Society, Economy and Environment	3
	HY0003	Ethics and Social Contexts of Education	2
BROADENING & DEEPENING ELECTIVES			
MINOR			
AD Minor		Chinese Literature	6

Category/ Subject	Course Code	Title	No. of AUs
AD Minor		Malay Literature	12

[#] AED00C spans the entire duration of the BA/BSc (Acad Dspln & Ed) programmes.

[1] AED10H (3AU) will be taken by student teachers who are admitted via Year 1. AED10J (2AU) will be taken by students who are admitted in Year 2 via Direct Entry.

Year 2

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Chinese Studies	12
		Malay Studies	18
		Tamil Studies	12
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED20A	Teaching and Managing Learners at the Primary Level	2
	AED20D	Assessing Learning and Performance	1
	AED20E	Designing Future-Ready Learning with Technology	2
CURRICULUM STUDIES 1			
CS1: Chinese Language	ACC20B	Curriculum Design and Development of Instructional Materials	3
CS1: Malay Language	ACD20A	Foundations to Malay Language Teaching at the Primary Level	3
	ACD20B	Teaching Oral Communication in Malay at the Primary Level	2
CS1: Tamil Language	ACT20A	Language Education and Pedagogy in teaching of Tamil Language	3
	ACT20B	Teaching Reading and Writing in Tamil Language	3
CURRICULUM STUDIES 2			
CS2: CCE (Chinese)	ACZ20A	Introduction to CCE: Content, Curriculum, Pedagogy & Assessment	3
CS2: CCE (Malay)	ACV20A	Teaching of Character and Citizenship Education (Malay) (Lower Primary)	3
	ACV20B	Teaching of Character and Citizenship Education (Malay) (Upper Primary)	3
PRACTICUM			
	APR20A	Teaching Assistantship	3
INTERDISCIPLINARY COLLABORATIVE CORE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
Select 1 digital literacy prescribed elective [+]	AED23 K/L/M	Digital Literacy for the Net Generation / Digital and Media Literacy / Computer Literacy through Coding and Applications	3
BROADENING & DEEPENING ELECTIVES			
MINOR			
AD Minor		Chinese Literature	9
AD Minor		Tamil Literature & CCE	9

[+] Select 1 course from the following choices: AED23K or AED23L or AED23M

Year 3

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Chinese Studies	9
		Malay Studies	9
		Tamil Studies	6
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED30D	Supporting Diversity at the Primary Level	1
	AED30E	Pedagogical Practices	1
CURRICULUM STUDIES 1			
CS1: Chinese Language	ACC30A	Teaching of Listening & Speaking	2
	ACC30B	Teaching of Reading & Writing	2
	ACC30C	Planning and Developing Language Lessons	2
CS1: Malay Language	ACD30A	Teaching Reading and Writing in Malay (Lower Primary)	3
CURRICULUM STUDIES 2			
CS2: CCE (Chinese)	ACZ30A	Children's Literature & the Teaching of CCE	3
PRACTICUM			
	APR30A	Teaching Practice 1	5
INTER-MAJOR			
	AED40A	Educational Research Project^	3
BROADENING & DEEPENING ELECTIVES			
MINOR			
AD Minor		Tamil Literature & CCE	3
OTHER BROADENING & DEEPENING ELECTIVES @			
Other BDEs			3

^ AED40A span two semesters.

@ Student teachers majoring in Chinese Studies (Pri) / Malay Studies (Pri) / Tamil Studies (Pri) are required to read 3 AUs worth of other BDEs in total.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Chinese Studies	3
		Malay Studies	6
		Tamil Studies	9
EDUCATION STUDIES			
CURRICULUM STUDIES 1			
CS1: Chinese Language	ACC40A	Student-centered Language Learning Strategies & Activities	3
	ACC40B	Language Testing	3
CS1: Malay Language	ACD40A	Teaching Reading and Writing in Malay (Upper Primary)	3
	ACD40B	Teaching Malay Grammar at the Primary Level	2
	ACD40C	Assessment in Malay Language Teaching	3
CS1: Tamil Language	ACT40B	Use of Information Communication Technology in Teaching Tamil Language	3
	ACT40C	Teaching of Tamil Poetry	3
CURRICULUM STUDIES 2			
CS2: CCE (Chinese)	ACZ40A	Teaching of CCE: From Classroom to School to Community	3
CS2: CCE (Malay)	ACV40A	Assessment in Character and Citizenship Education (Malay)	2
CS2: CCE (Tamil) & Tamil Literature	ACK40A	Character and Citizenship Education and Moral Literature	3
	ACK40B	Character and Citizenship Education and Children Literature	3
INTER-MAJOR			
ACADEMIC EXERCISE			
		Academic Exercise (aligned with AD Major)	6
PRACTICUM			
	APR40A	Teaching Practice 2	10
BROADENING & DEEPENING ELECTIVES			
MINOR			
AD Minor		Chinese Literature	3

AUs overview for Bachelor of Arts in Chinese/Malay/Tamil Studies and Education (Primary)

Group of Courses	No. of AUs
ACADEMIC DISCIPLINE MAJOR	
Academic Discipline • Chinese Studies; or • Malay Studies; or • Tamil Studies*	 42 48 45
EDUCATION MAJOR	
Education Studies	12
Curriculum Studies (aligned with corresponding AD Major) • Chinese Studies o CS1: Chinese Language o CS2: CCE (Chinese) • Malay Studies o CS1: Malay Language o CS2: CCE (Malay) • Tamil Studies* o CS1: Tamil Language o CS2: CCE (Tamil) and Tamil Literature	 15 9 16 8 15 9
Practicum • School Experience • Teaching Assistantship • Teaching Practice 1	 0 3 5
INTER-MAJOR	
• Academic Exercise • Academic Discourse Skills • Educational Research Project	6 3 3
Practicum • Teaching Practice 2	 10
INTERDISCIPLINARY COLLABORATIVE CORE	
• Communication Skills for Teachers • Digital Literacy • Ethics and Social Contexts of Education • Group Endeavors in Service Learning • Multicultural Studies • Sustainability: Society, Economy and Environment	2 3 2 3/2 3 3
BROADENING & DEEPENING ELECTIVES	
Minor (aligned with corresponding AD Major) • Chinese Literature • Malay Literature • Tamil Literature*	 18 12 15
Other Broadening & Deepening Electives • Regulars and Upgraders; or • TSP	 3 / 15

* Student teachers reading Tamil Studies will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

Curriculum Structure for Bachelor of Arts in an Academic Discipline and in Education (Secondary) (General) Programmes

Student teachers enrolled in the Bachelor of Arts in an Academic Discipline and in Education (Secondary) (General) programmes will follow the curriculum structure shown in Table 3 below:

Table 3: Curriculum Structure for Bachelor of Arts in an Academic Discipline and in Education (Secondary) (General) Programmes

Year 1

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR (Select 1 subject area*)			
ACADEMIC DISCIPLINE			
AD Major		An Arts Subject *	12
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED02C[#]	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
PRACTICUM			
	APR10A	School Experience	0
INTER-MAJOR			
	ALS10A	Academic Discourse Skills	3
INTERDISCIPLINARY COLLABORATIVE CORE			
	ALK10B	Communication Skills for Teachers	2
	AED10H/ AED10J[1]	Group Endeavours in Service Learning	3/ 2
	CC0006	Sustainability: Society, Economy and Environment	3
	HY0003	Ethics and Social Contexts of Education	2
BROADENING & DEEPENING ELECTIVES			
MINOR			
AD Minor		Arts or Science Subject [@]	12

* AD Major: Select 1 from the following list of Arts Subjects:
Art, Drama, English Language & Linguistics, English Literature, Geography, History, Malay Studies, Music.

[@] AD Minor: Select 1 from the following list:
Art, Biology, Chemistry, Drama, English Language & Linguistics, English Literature, Geography, History, Mathematics & Computational Thinking, Music, Physics & Energy Studies, Social Studies.

[#] AED02C spans the entire duration of the BA/BSc (Acad Dspln & Ed) programmes.

[1] AED10H (3AU) will be taken by student teachers who are admitted via Year 1. AED10J (2AU) will be taken by students who are admitted in Year 2 via Direct Entry.

Year 2

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		An Arts Subject *	18
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED22A	Teaching and Managing Learners at the Secondary Level (Part 1)	2
	AED20D	Assessing Learning and Performance	1
	AED20E	Designing Future-Ready Learning with Technology	2
CURRICULUM STUDIES (CS1 align with AD Major, CS2 align with AD Minor) #			
Art	ACA22A	Concepts and Practices in Art Education	3
Biology	ACB22A	Curriculum and Scientific practices in Biology Education	3
Chemistry	ACY22B	Pedagogies in Chemistry Education	3
Drama	ACU22A	Theatre and Drama Education	3
English Language	ACE22B	Teaching of English at the Secondary Level: Reading and Viewing	3
English Literature **	ACR32A	Teaching Prose	3
	ACR32B	Teaching Poetry	3
Geography	ACG22A	Planning for Geography Teaching	3
History	ACH22A	Introduction to the Teaching and Learning of Secondary History	3
Mathematics	ACM22A	Teaching and Learning Mathematics I	3
Music	ACI22C	Popular Music Pedagogies	3
Physics	ACP22A	Understanding the Physics Curriculum	3
Social Studies	ACL22B	Social Studies Education in the Secondary School Classroom	3
PRACTICUM			
	APR20A	Teaching Assistantship	3
INTERDISCIPLINARY COLLABORATIVE CORE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
Select 1 digital literacy prescribed elective +^	AED23 K/L/M	Digital Literacy for the Net Generation / Digital and Media Literacy / Computer Literacy through Coding and Applications	3
BROADENING & DEEPENING ELECTIVES			
OTHER BROADENING & DEEPENING ELECTIVES @			
Other BDEs			6

* AD1: Select 1 from the following list of Arts Subjects:
Art, Drama, English Language & Linguistics, English Literature, Geography, History, Malay Studies, Music.

** ACR32A, ACR32B can be taken at Year 2 or Year 3.

\# For CS Malay, see section under Malay Studies Specialisation (Secondary track).

\+ Select 1 course from the following choices: AED23K or AED23L or AED23M

^ Student teachers reading a Minor in Mathematics & Computational Thinking must take AED23M Computer Literacy through Coding and Applications.

@ Student teachers are required to read 6 AUs worth of other BDEs in total.

Year 3

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		An Arts Subject *	9
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED32B	Teaching and Managing Learners at Secondary Level (Part 2)	1
	AED30E	Pedagogical Practices	1
CURRICULUM STUDIES (CS1 align with AD Major, CS2 align with AD Minor) #			
Art	ACA32A	Children and Adolescent's Artistic Development and its Implications for Teaching	3
Biology	ACB32A	Pedagogies in Biology Education	3
Chemistry	ACY32B	Chemistry Planning and Instruction	3
Drama	ACU32A	Planning and Facilitating Theatre and Drama Education	3
English Language	ACE32B	Teaching of English at the Secondary Level: Writing and Representing	3
English Literature **	ACR32A	Teaching Prose	3
	ACR32B	Teaching Poetry	3
Geography	ACG32A	Classroom-based Teaching Strategies	3
History	ACH32A	Teaching and Learning of Secondary History and Social Studies I	3
Mathematics	ACM32A	Teaching and Learning Mathematics II	3
Music	ACI32C	Instrumental and Singing Skills for the Music Classroom	3
Physics	ACP32A	Physics Instruction & Microteaching	3
Social Studies	ACL32B	Inquiry-Based Learning Approach Towards the Teaching of Social Studies	3
PRACTICUM			
	APR30A	Teaching Practice 1	5
INTER-MAJOR			
	AED40A	Educational Research Project^	3
BROADENING & DEEPENING ELECTIVES			
OTHER BROADENING & DEEPENING ELECTIVES @			
Other BDEs			6

* AD Major: Select 1 from the following list of Arts Subjects:
Art, Drama, English Language & Linguistics, English Literature, Geography, History, Malay Studies, Music.

\# For CS Malay, see section under Malay Studies Specialisation (Secondary track).

** ACR32A, ACR32B can be taken in Year 2 or Year 3.

^ AED40A span two semesters.

@ Student teachers are required to read 6 AUs worth of other BDEs in total.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		An Arts Subject *	9
EDUCATION MAJOR			
CURRICULUM STUDIES (CS1 align with AD Major, CS2 align with AD Minor) #			
Art	ACA42A+	Curriculum and Assessment in Art (Teaching of Art 3)	3
	ACA42B	Teaching of Art in the Classroom (Teaching of Art 4)	3
Biology	ACB42A	Assessment in Biology	3
	ACB42B	Innovative Biology Teaching	3
Chemistry	ACY42A	Assessment and Laboratory Issues in Chemistry	3
	ACY42C+	Trends and Issues in Chemistry Education	3
Drama	ACU42A+	Critical Pedagogies for Theatre and Drama Education	3
	ACU42B	Curriculum and Assessment for Theatre and Drama Education	3
English Language	ACE42A	Teaching of English at the Secondary Level: Listening and Speaking	3
	ACE42B+	Teaching Grammar at the Secondary Level	3
English Literature	ACR42A+	Designing Literature Curriculum and Assessment	3
	ACR42B	Teaching Drama	3
Geography	ACG42A+	Advanced Teaching Strategies in Geography	3
	ACG42B	Field-Based Teaching Strategies and Assessment in Teaching Geography	3
History	ACH42A+	Inquiry-based Experiential Learning: Fieldtrip Design for Secondary History	3
	ACH42B	Assessment and Evaluation in Secondary History	3
Mathematics	ACM42A	Teaching and Learning Mathematics III	3
	ACM42B+	Specialized Areas in Teaching and Learning of Mathematics	3
Music	ACI42D	Teaching Music as an Examination Subject at O- and N(T)-level	3
	ACI42E+	Creativity in Music Education	3
Physics	ACP42A	Assessment in Physics Education	3
	ACP42B+	Reflective Teaching and Inquiry in Physics	3
Social Studies	ACL42B	Assessing Learning in Social Studies	3
INTER-MAJOR			
ACADEMIC EXERCISE			
		Academic Exercise (aligned with AD Major*)	6
PRACTICUM			
	APR40A	Teaching Practice 2	10

* AD Major: Select 1 from the following list of Arts Subjects:
Art, Drama, English Language & Linguistics, English Literature, Geography, History, Malay Studies, Music.

\# For CS Malay, see section under Malay Studies Specialisation (Secondary track).

\+ Offered to CS1 student teachers. CS2 student teachers may approach the course coordinator if they wish to sit in for the course.

AUs overview for Bachelor of Arts in an Academic Discipline and in Education (Secondary) (General)

Group of Courses	No. of AUs
ACADEMIC DISCIPLINE MAJOR	
Academic Discipline • AD Major	 48
EDUCATION MAJOR	
Education Studies	12
Curriculum Studies • CS1 • CS2	 12 9
Practicum • School Experience • Teaching Assistantship • Teaching Practice 1	 0 3 5
INTER-MAJOR	
• Academic Exercise • Academic Discourse Skills • Education Research Project	6 3 3
Practicum • Teaching Practice 2	 10
INTERDISCIPLINARY COLLABORATIVE CORE	
• Communication Skills for Teachers • Digital Literacy • Ethics and Social Contexts of Education • Group Endeavors in Service Learning • Multicultural Studies • Sustainability: Society, Economy and Environment	2 3 2 3/2 3 3
BROADENING & DEEPENING ELECTIVES	
Minor • AD Minor	 15
Other Broadening & Deepening Electives • Regulars and Upgraders; or • TSP	 6 / 18

Curriculum Structure for Bachelor of Arts in Chinese / Malay / Tamil Studies and Education (Secondary) Programme

Student teachers enrolled in the Bachelor of Arts in Chinese / Malay / Tamil Studies and Education (Secondary) programme will follow the curriculum structure shown in Table 4 below:

Table 4: Curriculum Structure for the Bachelor of Arts in Chinese / Malay / Tamil Studies and Education (Secondary) Programme *

Year 1

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Chinese Studies	18
		Malay Studies	15
		Tamil Studies	18
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED02C[#]	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
CURRICULUM STUDIES 1			
CS1: Tamil Language	ACT10A	Assessment in Tamil Language Teaching	3
CURRICULUM STUDIES 2			
CS2: CCE (Tamil) & Tamil Literature	ACK10A	Introduction to CCE: Content, Curriculum, Pedagogy and Assessment	3
PRACTICUM			
	APR10A	School Experience	0
INTER-MAJOR			
	ALS10A	Academic Discourse Skills	3
INTERDISCIPLINARY COLLABORATIVE CORE			
	ALK10B	Communication Skills for Teachers	2
	AED10H/ AED10J[1]	Group Endeavours in Service Learning	3/ 2
	CC0006	Sustainability: Society, Economy and Environment	3
	HY0003	Ethics and Social Contexts of Education	2

Category/ Subject	Course Code	Title	No. of AUs
BROADENING & DEEPENING ELECTIVES			
MINOR			
AD Minor		Chinese Literature	6
		Malay Literature	12
		Tamil Literature & CCE	3

* In the secondary specialisation for Malay Studies, Malay Studies must be offered as AD Major with Malay Literature as AD Minor. However, student teachers can opt to offer Malay Studies as AD Major and any other Arts subject as AD Minor but they will then not be considered as specialising in Malay Studies.

\# AED02C spans the entire duration of the BA/BSc (Acad Dspln & Ed) programmes.

[1] AED10H (3AU) will be taken by student teachers who are admitted via Year 1. AED10J (2AU) will be taken by students who are admitted in Year 2 via Direct Entry.

Year 2

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Chinese Studies	9
		Malay Studies	18
		Tamil Studies	15
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED22A	Teaching and Managing Learners at Secondary Level (Part 1)	2
	AED20D	Assessing Learning and Performance	1
	AED20E	Designing Future-Ready Learning with Technology	2
CURRICULUM STUDIES 1			
CS1: Chinese Language	ACC22A	Basic Elements of a Lesson	1
	ACC22B	Teaching of Chinese: Form and Meaning	2
CS1: Malay Language	ACD22A	Foundations to Malay Language Teaching at the Secondary Level	3
CS1: Tamil Language	ACT20A	Language Education and Pedagogy in teaching of Tamil Language	3
	ACT20B	Teaching Reading and Writing in Tamil Language	3
CURRICULUM STUDIES 2			
CS2: Chinese Literature	ACJ22A	Introduction to the Teaching of Chinese Literature & China Studies: Content, Pedagogy, & Assessment	3
CS2: Malay Literature	ACF22A	Teaching of Modern Malay Literature	3
	ACF22B	Teaching of Traditional Malay Literature	3
PRACTICUM			
	APR20A	Teaching Assistantship	3
INTERDISCIPLINARY COLLABORATIVE CORE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
Select 1 digital literacy prescribed elective [+]	AED23 K/L/M	Digital Literacy for the Net Generation / Digital and Media Literacy / Computer Literacy through Coding and Applications	3
BROADENING & DEEPENING ELECTIVES			
MINOR			
AD Minor		Chinese Literature	9
		Tamil Literature & CCE	6
OTHER BROADENING & DEEPENING ELECTIVES [@]			
Other BDEs (for Chinese Studies student teachers)			3

[+] Select 1 course from the following choices: AED23K or AED23L or AED23M.

[@] Student teachers majoring in Chinese Studies (Sec) are required to read 6 AUs worth of other BDEs in total.

Year 3

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Chinese Studies	9
		Malay Studies	9
		Tamil Studies	3
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED32B	Teaching and Managing Learners at Secondary Level (Part 2)	1
	AED30E	Pedagogical Practices	1
CURRICULUM STUDIES 1			
CS1: Chinese Language	ACC32A	Teaching of Listening & Speaking	2
	ACC32B	Teaching of Reading & Writing	2
CS1: Malay Language	ACD32A	Teaching and Assessing Reading in Malay	3
CURRICULUM STUDIES 2			
CS2: Chinese Literature	ACJ32A	Teaching of Prose & Poetry: Pedagogy, Design & Facilitation of Learning Activities	3
PRACTICUM			
	APR30A	Teaching Practice 1	5
INTER-MAJOR			
	AED40A	Educational Research Project[^]	3
BROADENING & DEEPENING ELECTIVES			
MINOR			
AD Minor		Tamil Literature & CCE	6
OTHER BROADENING & DEEPENING ELECTIVES [@]			
Other BDEs (For Chinese / Tamil Studies student teachers)			3
Other BDEs (for Malay Studies student teachers)			6

[^] AED40A span two semesters.

[@] Student teachers majoring in Chinese Studies (Sec) or Malay Studies (Sec) are required to read a total of 6 AUs of other BDEs, while those majoring in Tamil Studies (Sec) are required to read 3 AUs worth of other BDEs in total.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Chinese Studies	6
		Malay Studies	6
		Tamil Studies	9
EDUCATION MAJOR			
CURRICULUM STUDIES 1			
CS1: Chinese Language	ACC42A	Language Testing	3
	ACC42B	Planning and Developing Student-centered Language Lessons	2
CS1: Malay Language	ACD42A	Teaching and Assessing Writing in Malay	3
	ACD42B	Teaching and Assessing Malay Grammar	3
CS1: Tamil Language	ACT40B	Use of Information Communication Technology in Teaching Tamil Language	3
	ACT40C	Teaching of Tamil Poetry	3
CURRICULUM STUDIES 2			
CS2: Chinese Literature	ACJ42A	Teaching of Novels & Drama: Pedagogy, Design & Facilitation of Learning Activities	3
CS2: Malay Literature	ACF42A	Designing Programmes and Assessment in the Teaching of Malay Literature	3
CS2: CCE (Tamil) & Tamil Literature	ACK40A	Character and Citizenship Education and Moral Literature	3
	ACK40B	Character and Citizenship Education and Children Literature	3
INTER-MAJOR			
ACADEMIC EXERCISE			
		Academic Exercise (aligned with AD Major)	6
PRACTICUM			
	APR40A	Teaching Practice 2	10
BROADENING & DEEPENING ELECTIVES			
MINOR			
AD Minor		Chinese Literature	3

AUs overview for Bachelor of Arts in Chinese / Malay / Tamil Studies and Education (Secondary)

Group of Courses	No. of AUs
ACADEMIC DISCIPLINE MAJOR	
Academic Discipline • Chinese Studies; or • Malay Studies; or • Tamil Studies*	 42 48 45
EDUCATION MAJOR	
Education Studies	12
Curriculum Studies (aligned with corresponding AD Major) • Chinese Studies o CS1: Chinese Language o CS2: Chinese Literature • Malay Studies o CS1: Malay Language o CS2: Malay Literature • Tamil Studies* o CS1: Tamil Language o CS2: CCE (Tamil) and Tamil Literature	 12 9 12 9 15 9
Practicum • School Experience • Teaching Assistantship • Teaching Practice 1	 0 3 5
INTER-MAJOR	
• Academic Exercise • Academic Discourse Skills • Education Research Project	6 3 3
Practicum • Teaching Practice 2	 10
INTERDISCIPLINARY COLLABORATIVE CORE	
• Communication Skills for Teachers • Digital Literacy • Ethics and Social Contexts of Education • Group Endeavors in Service Learning • Multicultural Studies • Sustainability: Society, Economy and Environment	2 3 2 3/2 3 3
BROADENING & DEEPENING ELECTIVES	
Minor (aligned with corresponding AD Major) • Chinese Literature • Malay Literature • Tamil Literature*	 18 15 15
Other Broadening & Deepening Electives • Chinese / Malay Studies o Regulars and Upgraders o TSP • Tamil Studies* o Regulars and Upgraders o TSP	 6 18 3 15

* Student teachers reading Tamil Studies will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

Curriculum Structure for Bachelor of Science in an Academic Discipline and in Education (Primary) (General) Programmes

Student teachers enrolled in the Bachelor of Science in an Academic Discipline and in Education (Primary) (General) programmes will follow the curriculum structure shown in Table 5 below:

Table 5: Curriculum Structure for Bachelor of Science in an Academic Discipline and in Education (Primary) (General) Programmes

Year 1

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR (Select 1 subject area*)			
ACADEMIC DISCIPLINE			
AD Major		Science Subject *	12
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED00C[#]	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
CURRICULUM STUDIES (Select any 2 Curriculum Studies areas)			
Music	ACI10C	Music and Movement in the Inclusive Classroom	3
PRACTICUM			
	APR10A	School Experience	0
INTER-MAJOR			
	ALS10A	Academic Discourse Skills	3
INTERDISCIPLINARY COLLABORATIVE CORE			
	ALK10B	Communication Skills for Teachers	2
	AED10H/ AED10J[1]	Group Endeavours in Service Learning	3/ 2
	CC0006	Sustainability: Society, Economy and Environment	3
	HY0003	Ethics and Social Contexts of Education	2
BROADENING & DEEPENING ELECTIVES			
PRIMARY LEVEL SUBJECTS (Aligned with Curriculum Studies Subjects)			
Art	ASA10B	Twenty-First Century Learning through Theatre and Drama	3
English Language	ASE10A	Grammar	2
Mathematics	ASM10C	Number Topics	2

Category/ Subject	Course Code	Title	No. of AUs
	ASM10D	Geometry Topics	2
Science (For non-PES Major student teachers)	ASK10B	Topics in Physical Science for Primary Science Teaching	3
Social Studies	ASL10A	Disciplinary Foundations in Primary Social Studies: Geography	3
	ASL10B	Disciplinary Foundations in Primary Social Studies: History	3

* AD Major: Select 1 from the following list of Science Subjects:
Biology, Chemistry, Mathematics & Computational Thinking, Physics & Energy Studies.

\# AED00C spans the entire duration of the BA/BSc (Acad Dspln & Ed) programmes.

[1] AED10H (3AU) will be taken by student teachers who are admitted via Year 1. AED10J (2AU) will be taken by students who are admitted in Year 2 via Direct Entry.

Note: In addition to the core courses and the required number of prescribed electives, student teachers doing English Language as a Curriculum Studies (CS) subject but not reading English Language & Linguistics as an Academic Discipline are required by Ministry of Education to undertake a compulsory Certificate in English Language Studies (CELS).

Year 2

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR (Select 1 subject area*)			
ACADEMIC DISCIPLINE			
AD Major		Science Subject *	18
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED20A	Teaching and Managing Learners at the Primary Level	2
	AED20E	Designing Future-Ready Learning with Technology	2
	AED20D	Assessing Learning and Performance	1
CURRICULUM STUDIES (Select any 2 Curriculum Studies areas)			
Art	ACA20A	Concepts and Practices in Art Education	3
English Language	ACE20B	Teaching Reading and Writing in a Multilingual Context (Lower Primary)	3
Mathematics	ACM20A	The Teaching and Learning of Primary Mathematics I	3
Music	ACI20C	Popular Music Pedagogies	3
Science	ACS20A	Curriculum and Practices for Primary Science	3
Social Studies	ACL20A	Teaching Social Studies in the Primary Classroom	3
PRACTICUM			
	APR20A	Teaching Assistantship	3
INTERDISCIPLINARY COLLABORATIVE CORE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
Select 1 digital literacy prescribed elective +^	AED23 K/L/M	Digital Literacy for the Net Generation / Digital and Media Literacy / Computer Literacy through Coding and Applications	3
BROADENING & DEEPENING ELECTIVES			
PRIMARY LEVEL SUBJECTS (Aligned with Curriculum Studies subjects)			
English Language	ASE20A	Exploring Language in Texts	2

* AD Major: Select 1 from the following list of Science Subjects:
Biology, Chemistry, Mathematics & Computational Thinking, Physics & Energy Studies.

\+ Select 1 course from the following choices:
AED23K or AED23L or AED23M

^ Student teachers reading a Minor in Mathematics & Computational Thinking must take AED23M Computer Literacy through Coding and Applications.

Year 3

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR (Select 1 subject area*)			
ACADEMIC DISCIPLINE			
AD Major		Science Subject *	9
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED30D	Supporting Diversity at the Primary Level	1
	AED30E	Pedagogical Practices	1
CURRICULUM STUDIES (Further studies in selected Curriculum Studies subjects)			
Art	ACA30A	Children and Adolescent's Artistic Development and its Implications for Teaching	3
English Language	ACE30B	Teaching Reading and Writing in a Multilingual Context (Upper Primary)	3
Mathematics	ACM30A	The Teaching and Learning of Primary Mathematics II	3
Music	ACI30C	Instrumental and Singing Skills for the Music Classroom	3
Science	ACS30A	Pedagogies for Primary Science	3
Social Studies	ACL30A	Inquiry in Primary Social Studies	3
PRACTICUM			
	APR30A	Teaching Practice 1	5
INTER-MAJOR			
	AED40A	Educational Research Project^	3
BROADENING & DEEPENING ELECTIVES			
PRIMARY LEVEL SUBJECTS (Aligned with Curriculum Studies subjects)			
Art	ASA30B	Pedagogical Practices in Art Classroom	3
OTHER BROADENING & DEEPENING ELECTIVES @			
Other BDEs			6

* AD Major: Select 1 from the following list of Science Subjects:
Biology, Chemistry, Mathematics & Computational Thinking, Physics & Energy Studies.

^ AED40A span two semesters.

@ Student teachers are required to read 6 AUs worth of other BDEs in total.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR (Select 1 subject area*)			
ACADEMIC DISCIPLINE			
AD Major		Science Subject *	9
EDUCATION MAJOR			
CURRICULUM STUDIES (Further studies in selected Curriculum Studies subjects)			
Art	ACA40A	Teaching of Art in the Classroom	3
	ACA40B+	Curriculum and Assessment in Art	3
English Language	ACE40C	Teaching Speaking and Listening in a Multilingual Context (Lower and Upper Primary)	3
	ACE40D+	Approaches to Teaching English in a Multilingual Context	3
Mathematics	ACM40A	The Teaching and Learning of Primary Mathematics III	3
	ACM40B+	Assessment Literacy for The Primary Mathematics Classrooms	3
Science	ACS40A	Innovations in Design and Practices for Primary Science	3
	ACS40B+	Meeting Learners' Needs in Primary Science	3
Social Studies	ACL40A	Managing Diversity in the Social Studies Classroom	3
	ACL40B+	Curriculum Leadership in Primary Social Studies	3
INTER-MAJOR			
ACADEMIC EXERCISE			
		Academic Exercise (aligned with AD Major*)	6
PRACTICUM			
	APR40A	Teaching Practice 2	10
BROADENING & DEEPENING ELECTIVES			
PRIMARY LEVEL SUBJECTS (Aligned with Curriculum Studies Subjects)			
English Language	ASE40B	Current Trends in English Language Education in the Primary School	2
Mathematics	ASM40A	Further Mathematics Topics	2
Music	ASI40A	Composing	3
	ASI40B	Ethnomusicology	3
Science (For non-Biology Major student teachers)	ASK40B	Topics in Biological Science for Primary Science Teaching	3

* AD Major: Select 1 from the following list of Science Subjects:
Biology, Chemistry, Mathematics & Computational Thinking, Physics & Energy Studies.

\+ Offered to CS1 student teachers.
CS2 student teachers may approach the course coordinator if they wish to sit in for the course.

AUs overview for Bachelor of Science in an Academic Discipline and in Education (Primary) (General)

Group of Courses	No. of AUs
ACADEMIC DISCIPLINE MAJOR	
Academic Discipline	48
EDUCATION MAJOR	
Education Studies	12
Curriculum Studies • CS1 • CS2 Practicum • School Experience • Teaching Assistantship • Teaching Practice 1	 12 9 0 3 5
INTER-MAJOR	
• Academic Exercise • Academic Discourse Skills • Education Research Project	6 3 3
Practicum • Teaching Practice 2	 10
INTERDISCIPLINARY COLLABORATIVE CORE	
• Communication Skills for Teachers • Digital Literacy • Ethics and Social Contexts of Education • Group Endeavors in Service Learning • Multicultural Studies • Sustainability: Society, Economy and Environment	2 3 2 3/2 3 3
BROADENING & DEEPENING ELECTIVES	
Primary Level Subject (aligned with Curriculum Studies) • PLS1 • PLS2	 9 6
Other Broadening & Deepening Electives • Regulars and Upgraders; or • TSP	 6 / 18

Curriculum Structure for Bachelor of Science in Sport Science and Education (Primary) Programme

Student teachers enrolled in the Bachelor of Science in Sport Science and Education (Primary) Programme will follow the curriculum structure shown in Table 6 below:

Table 6: Curriculum Structure for the Bachelor of Science in Sport Science and Education (Primary) Programme

Year 1

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Sport Science	13
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED00C[#]	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
CURRICULUM STUDIES 1			
Physical Education	APC10A	Principles of Games	2
	APC10J	Fundamental Movement Skills	3
	APC10K	The Teaching of Outdoor Education (Primary)	2
PRACTICUM			
	APR10A	School Experience	0
INTER-MAJOR			
	ALS10A	Academic Discourse Skills	3
INTERDISCIPLINARY COLLABORATIVE CORE			
	ALK10B	Communication Skills for Teachers	2
	AED10H/ AED10J[1]	Group Endeavours in Service Learning	3/2
	CC0006	Sustainability: Society, Economy and Environment	3
	HY0003	Ethics and Social Contexts of Education	2
BROADENING & DEEPENING ELECTIVES			
PRIMARY LEVEL SUBJECT 1*			
Physical Education	APS10A	Curriculum Gymnastics	2
PRIMARY LEVEL SUBJECT 2* (Aligned with second Curriculum Studies Subject)			
English Language	ASE10A	Grammar	2
Mathematics	ASM10C	Number Topics	2

Category/ Subject	Course Code	Title	No. of AUs
	ASM10D	Geometry Topics	2
Science	ASK10B	Topics in Physical Science for Primary Science Teaching	3
Social Studies	ASL10A	Disciplinary Foundations in Primary Social Studies: Geography	3
	ASL10B	Disciplinary Foundations in Primary Social Studies: History	3

[#] AED00C spans the entire duration of the BA/BSc (Acad Dspln & Ed) programmes.

[*] Student teachers must take two (2) Primary Level Subjects (PLS) areas which correspond to their choice of Curriculum Studies (CS) subjects. For student teachers in the Bachelor of Science in Sport Science and Education programme, CS1 is Physical Education while CS2 will be one of the following subjects: English Language, Mathematics, Music, Science, Social Studies.

[1] AED10H (3AU) will be taken by student teachers who are admitted via Year 1. AED10J (2AU) will be taken by students who are admitted in Year 2 via Direct Entry.

Year 2

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Sport Science	10
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED20A	Teaching and Managing Learners at the Primary Level	2
	AED20D	Assessing Learning and Performance	1
	AED20E	Designing Future-Ready Learning with Technology	2
CURRICULUM STUDIES 1			
Physical Education	APC20J	Teaching of Holistic Health and Physical Fitness	2
CURRICULUM STUDIES 2 (Select 1 Curriculum Studies subject)			
English Language	ACE20B	Teaching Reading and Writing in a Multilingual Context (Lower Primary)	3
Mathematics	ACM20A	The Teaching and Learning of Primary Mathematics I	3
Science	ACS20A	Curriculum and Practices for Primary Science	3
Social Studies	ACL20A	Teaching Social Studies in the Primary Classroom	3
PRACTICUM			
	APR20A	Teaching Assistantship	3
INTERDISCIPLINARY COLLABORATIVE CORE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
Select 1 digital literacy prescribed elective [+^]	AED23 K/L/M	Digital Literacy for the Net Generation / Digital and Media Literacy / Computer Literacy through Coding and Applications	3
BROADENING & DEEPENING ELECTIVES			
PRIMARY LEVEL SUBJECT 1			
Physical Education	APS20A	Dance	2
	APS20B	Track and Field	2
PRIMARY LEVEL SUBJECT 2 (Aligned with second Curriculum Studies Subject)			
English Language	ASE20A	Exploring Language in Texts	2

[+] Select 1 course from the following choices:
AED23K or AED23L or AED23M

[^] Student teachers reading a Minor in Mathematics & Computational Thinking must take AED23M Computer Literacy through Coding and Applications.

Note: In addition to the core courses and the required number of prescribed electives, student teachers doing English Language as a Curriculum Studies (CS) subject but not reading English Language & Linguistics as an Academic Discipline Major are required by Ministry of Education to undertake a compulsory Certificate in English Language Studies (CELS).

Year 3

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Sport Science	17
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED30D	Supporting Diversity at the Primary Level	1
	AED30E	Pedagogical Practices	1
CURRICULUM STUDIES 1			
Physical Education	APC30C	Instructional Methods in Physical Education	3
CURRICULUM STUDIES 2 (Select 1 Curriculum Studies subject)			
English Language	ACE30B	Teaching Reading and Writing in a Multilingual Context (Upper Primary)	3
Mathematics	ACM30A	The Teaching and Learning of Primary Mathematics II	3
Science	ACS30A	Pedagogies for Primary Science	3
Social Studies	ACL30A	Inquiry in Primary Social Studies	3
PRACTICUM			
	APR30A	Teaching Practice 1	5
INTER-MAJOR			
	AED40A	Educational Research Project^	3
BROADENING & DEEPENING ELECTIVES			
OTHER BROADENING & DEEPENING ELECTIVES @			
Other BDEs			6

^ AED40A span two semesters.

@ Student teachers are required to read 6 AUs worth of other BDEs in total.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Sport Science	2
EDUCATION MAJOR			
CURRICULUM STUDIES 1			
Physical Education	APC40B	Instructional Strategies in Physical Education	3
CURRICULUM STUDIES 2 (Select 1 Curriculum Studies subject)			
English Language	ACE40C	Teaching Speaking and Listening in a Multilingual Context (Lower and Upper Primary)	3
Mathematics	ACM40A	The Teaching and Learning of Primary Mathematics III	3
Science	ACS40A	Innovations in Design and Practices for Primary Science	3
Social Studies	ACL40A	Managing Diversity in the Social Studies Classroom	3
INTER-MAJOR			
ACADEMIC EXERCISE			
Sport Science	APA40D	Academic Exercise: Sport Science	6
PRACTICUM			
	APR40A	Teaching Practice 2	10
BROADENING & DEEPENING ELECTIVES			
PRIMARY LEVEL SUBJECT 2 (Aligned with second Curriculum Studies Subject)			
English Language	ASE40B	Current Trends in English Language Education in the Primary School	2
Mathematics	ASM40A	Further Mathematics Topics	2
Science	ASK40B	Topics in Biological Science for Primary Science Teaching	3

AUs overview for Bachelor of Science in Sport Science and Education (Primary) Programme

Group of Courses	No. of AUs
ACADEMIC DISCIPLINE MAJOR	
Sport Science	42
EDUCATION MAJOR	
Education Studies	12
Curriculum Studies	
• CS1 (Physical Education)	15
• CS2 (English Language / Mathematics / Science / Social Studies)	9
Practicum	
• School Experience	0
• Teaching Assistantship	3
• Teaching Practice 1	5
INTER-MAJOR	
• Academic Exercise	6
• Academic Discourse Skills	3
• Education Research Project	3
Practicum	
• Teaching Practice 2	10
INTERDISCIPLINARY COLLABORATIVE CORE	
• Communication Skills for Teachers	2
• Digital Literacy	3
• Ethics and Social Contexts of Education	2
• Group Endeavors in Service Learning	3/2
• Multicultural Studies	3
• Sustainability: Society, Economy and Environment	3
BROADENING & DEEPENING ELECTIVES	
Primary Level Subject	
• PLS1	6
• PLS2	6
Other Broadening & Deepening Electives	
• Regulars and Upgraders; or	6 /
• TSP	18

Curriculum Structure for Bachelor of Science in an Academic Discipline and in Education (Secondary) (General) Programmes

Student teachers enrolled in the Bachelor of Science in an Academic Discipline and in Education (Secondary) (General) programmes will follow the curriculum structure shown in Table 7 below:

Table 7: Curriculum Structure for Bachelor of Science in an Academic Discipline and in Education (Secondary) (General) Programmes

Year 1

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Science Subject *	12
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED02C[#]	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
PRACTICUM			
	APR10A	School Experience	0
INTER-MAJOR			
	ALS10A	Academic Discourse Skills	3
INTERDISCIPLINARY COLLABORATIVE CORE			
	ALK10B	Communication Skills for Teachers	2
	AED10H/ AED10J[1]	Group Endeavours in Service Learning	3/ 2
	CC0006	Sustainability: Society, Economy and Environment	3
	HY0003	Ethics and Social Contexts of Education	2
BROADENING & DEEPENING ELECTIVES			
MINOR			
AD Minor		Arts or Science Subject [@]	12

[#] AED02C spans the entire duration of the BA/BSc (Acad Dspln & Ed) programmes.

* AD Major: Select one from the following list of Science Subjects:
Biology, Chemistry, Food & Consumer Sciences, Mathematics & Computational Thinking, Physics & Energy Studies.

@ AD Minor: Select one from the following list:
Art, Biology, Chemistry, Drama, English Language & Linguistics, English Literature, Geography, History, Mathematics & Computational Thinking, Music, Physics & Energy Studies.

1 AED10H (3AU) will be taken by student teachers who are admitted via Year 1. AED10J (2AU) will be taken by students who are admitted in Year 2 via Direct Entry.

Year 2

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINES			
AD Major		Science Subject *	18
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED22A	Teaching and Managing Learners at Secondary Level (Part 1)	2
	AED20D	Assessing Learning and Performance	1
	AED20E	Designing Future-Ready Learning with Technology	2
CURRICULUM STUDIES (CS1 align with AD Major, CS2 align with AD Minor)			
Art	ACA22A	Concepts and Practices in Art Education	3
Biology	ACB22A	Curriculum and Scientific Practices in Biology Education	3
Chemistry	ACY22B	Pedagogies in Chemistry Education	3
Drama	ACU22A	Theatre and Drama Education	3
English Language	ACE22B	Teaching of English at the Secondary Level: Reading and Viewing	3
English Literature**	ACR32A	Teaching Prose	3
	ACR32B	Teaching Poetry	3
Geography	ACG22A	Planning for Geography Teaching	3
History	ACH22A	Introduction to the Teaching and Learning of Secondary History	3
Mathematics	ACM22A	Teaching and Learning Mathematics I	3
Music	ACI22C	Popular Music Pedagogies	3
Nutrition and Food Science	ACQ22A	Family and Consumer Sciences Curriculum	3
Physics	ACP22A	Understanding the Physics Curriculum	3
Social Studies	ACL22B	Social Studies Education in the Secondary School Classroom	3
PRACTICUM			
	APR20A	Teaching Assistantship	3
INTERDISCIPLINARY COLLABORATIVE CORE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
Select 1 digital literacy prescribed elective +^	AED23 K/L/M	Digital Literacy for the Net Generation / Digital and Media Literacy / Computer Literacy through Coding and Applications	3
BROADENING & DEEPENING ELECTIVES			
OTHER BROADENING & DEEPENING ELECTIVES @			
Other BDEs			3

* AD Major: Select one from the following list of Science Subjects:
Biology, Chemistry, Food & Consumer Sciences, Mathematics & Computational Thinking, Physics & Energy Studies.

** ACR32A, ACR32B can be taken at Year 2 or Year 3.

\+ Select 1 course from the following choices:

AED23K or AED23L or AED23M

^ Student teachers reading a Minor in Mathematics & Computational Thinking must take AED23M Computer Literacy through Coding and Applications.

@ Student teachers are required to read 6 AUs worth of other BDEs in total.

Year 3

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE *			
AD Major		Science Subject *	9
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED32B	Teaching and Managing Learners at Secondary Level (Part 2)	1
	AED30E	Pedagogical Practices	1
CURRICULUM STUDIES (CS1 align with AD Major, CS2 align with AD Minor)			
Art	ACA32A	Children and Adolescent's Artistic Development and its Implications for Teaching	3
Biology	ACB32A	Pedagogies in Biology Education	3
Chemistry	ACY32B	Chemistry Planning and Instruction	3
Drama	ACU32A	Planning and Facilitating Theatre and Drama Education	3
English Language	ACE32B	Teaching of English at the Secondary Level: Writing and Representing	3
English Literature **	ACR32A	Teaching Prose	3
	ACR32B	Teaching Poetry	3
Geography	ACG32A	Classroom-based Teaching Strategies	3
History	ACH32A	Teaching and Learning of Secondary History and Social Studies I	3
Mathematics	ACM32A	Teaching and Learning Mathematics II	3
Music	ACI32C	Instrumental and Singing Skills for the Music Classroom	3
Nutrition and Food Science	ACQ32A	Introduction to Family and Consumer Sciences Teaching	3
Physics	ACP32A	Physics Instruction & Microteaching	3
Social Studies	ACL32B	Inquiry-Based Learning Approach Towards the Teaching of Social Studies	3
PRACTICUM			
	APR30A	Teaching Practice 1	5
INTER-MAJOR			
	AED40A	Educational Research Project^	3
BROADENING & DEEPENING ELECTIVES			
OTHER BROADENING & DEEPENING ELECTIVES @			
Other BDEs			6

* AD Major: Select one from the following list of Science Subjects:
Biology, Chemistry, Food and Consumer Sciences, Mathematics & Computational Thinking, Physics & Energy Studies.

@ Student teachers are required to read 6 AUs worth of other BDEs in total.

^ AED40A span two semesters.

** ACR32A, ACR32B can be taken at Year 2 or Year 3.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Science Subject *	9
EDUCATION MAJOR			
CURRICULUM STUDIES (CS1 align with AD Major, CS2 align with AD Minor)			
Art	ACA42A+	Curriculum and Assessment in Art (Teaching of Art 3)	3
	ACA42B	Teaching of Art in the Classroom (Teaching of Art 4)	3
Biology	ACB42A	Assessment in Biology	3
	ACB42B	Innovative Biology Teaching	3
Chemistry	ACY42A	Assessment and laboratory issues in Chemistry	3
	ACY42C+	Trends and Issues in Chemistry Education	3
Drama	ACU42A+	Critical Pedagogies for Theatre and Drama Education	3
	ACU42B	Curriculum and Assessment for Theatre and Drama Education	3
English Language	ACE42A	Teaching of English at the Secondary Level: Listening and Speaking	3
	ACE42B+	Teaching Grammar at the Secondary Level	3
English Literature	ACR42A+	Designing Literature Curriculum and Assessment	3
	ACR42B	Teaching Drama	3
Geography	ACG42A+	Advanced Teaching Strategies in Geography	3
	ACG42B	Field-Based Teaching Strategies and Assessment in Teaching Geography	3
History	ACH42A+	Inquiry-based Experiential Learning: Fieldtrip Design for Secondary History	3
	ACH42B	Assessment and Evaluation in Secondary History	3
Mathematics	ACM42A	Teaching and Learning Mathematics III	3
	ACM42B+	Specialised Areas in Teaching and Learning of Mathematics	3
Music	ACI42D	Teaching Music as an Examination Subject at O- and N(T)-level	3
	ACI42E+	Creativity in Music Education	3
Nutrition and Food Science	ACQ42A	Evaluation in Family and Consumer Sciences Teaching	3
	ACQ42B	Trends in Family and Consumer Sciences Education	3
Physics	ACP42A	Assessment in Physics Education	3
	ACP42B+	Reflective Teaching and Inquiry in Physics	3
Social Studies	ACL42B	Assessing Learning in Social Studies	3
INTER-MAJOR			
ACADEMIC EXERCISE			
		Academic Exercise (aligned with AD Major*)	6
PRACTICUM			
	APR40A	Teaching Practice 2	10

* AD Major: Select one from the following list of Science Subjects:
Biology, Chemistry, Food & Consumer Sciences, Mathematics & Computational Thinking, Physics & Energy Studies.

[+] Offered to CS1 student teachers. CS2 student teachers may approach the course coordinator if they wish to sit in for the course.

AUs overview for Bachelor of Science in an Academic Discipline and in Education (Secondary) (General)

Group of Courses	No. of AUs
ACADEMIC DISCIPLINE MAJOR	
Academic Discipline	
• AD Major	48
EDUCATION MAJOR	
Education Studies	12
Curriculum Studies	
• CS1	12
• CS2	9
Practicum	
• School Experience	0
• Teaching Assistantship	3
• Teaching Practice 1	5
INTER-MAJOR	
• Academic Exercise	6
• Academic Discourse Skills	3
• Education Research Project	3
Practicum	
• Teaching Practice 2	10
INTERDISCIPLINARY COLLABORATIVE CORE	
• Communication Skills for Teachers	2
• Digital Literacy	3
• Ethics and Social Contexts of Education	2
• Group Endeavors in Service Learning	3/2
• Multicultural Studies	3
• Sustainability: Society, Economy and Environment	3
BROADENING & DEEPENING ELECTIVES	
Minor	
• AD Minor	15
Other Broadening & Deepening Electives	
• Regulars and Upgraders; or	6 /
• TSP	18

Curriculum Structure for Bachelor of Science in Sport Science and Education (Secondary) Programme

Student teachers enrolled in the Bachelor of Science in Sport Science and Education (Secondary) programme will follow the curriculum structure shown in Table 8 below:

Table 8: Curriculum Structure for Bachelor of Science in Sport Science and Education (Secondary) Programme

Year 1

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Sport Science	13
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED02C[#]	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
CURRICULUM STUDIES 1			
Physical Education	APC12A	Principles of Games	2
	APC12J	Fundamental Movement Skills	3
	APC12K	The Teaching of Outdoor Education (Secondary)	2
PRACTICUM			
	APR10A	School Experience	0
INTER-MAJOR			
	ALS10A	Academic Discourse Skills	3
INTERDISCIPLINARY COLLABORATIVE CORE			
	ALK10B	Communication Skills for Teachers	2
	AED10H/ AED10J[1]	Group Endeavours in Service Learning	3/ 2
	CC0006	Sustainability: Society, Economy and Environment	3
	HY0003	Ethics and Social Contexts of Education	2
BROADENING & DEEPENING ELECTIVES			
MINOR			
AD Minor		Arts or Science Subject [@]	12

[#] AED02C spans the entire duration of the BA/BSc (Acad Dspln & Ed) programmes.

[@] AD Minor: Select 1 from the following list:
Art, Biology, Chemistry, Drama, English Language & Linguistics, English Literature, Geography, History, Mathematics & Computational Thinking, Music, Physics & Energy Studies, Social Studies.

[1] AED10H (3AU) will be taken by student teachers who are admitted via Year 1. AED10J (2AU) will be taken by students who are admitted in Year 2 via Direct Entry.

Year 2

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Sport Science	10
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED22A	Teaching and Managing Learners at Secondary Level (Part 1)	2
	AED20D	Assessing Learning and Performance	1
	AED20E	Designing Future-Ready Learning with Technology	2
CURRICULUM STUDIES 1			
Physical Education	APC22J	Teaching of Holistic Health & Physical Fitness	2
CURRICULUM STUDIES 2 (Align with AD Minor)			
Art	ACA22A	Concepts and Practices in Art Education	3
Biology	ACB22A	Curriculum and Scientific Practices in Biology Education	3
Chemistry	ACY22B	Pedagogies in Chemistry Education	3
Drama	ACU22A	Theatre and Drama Education	3
English Language	ACE22B	Teaching of English at the Secondary Level: Reading and Viewing	3
English Literature **	ACR32A	Teaching Prose	3
	ACR32B	Teaching Poetry	3
Geography	ACG22A	Planning for Geography Teaching	3
History	ACH22A	Introduction to the Teaching and Learning of Secondary History	3
Mathematics	ACM22A	Teaching and Learning Mathematics I	3
Music	ACI22C	Popular Music Pedagogies	3
Physics	ACP22A	Understanding the Physics Curriculum	3
Social Studies	ACL22B	Social Studies Education in the Secondary School Classroom	3
PRACTICUM			
	APR20A	Teaching Assistantship	3
INTERDISCIPLINARY COLLABORATIVE CORE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
Select 1 digital literacy prescribed elective +^	AED23 K/L/M	Digital Literacy for the Net Generation / Digital and Media Literacy / Computer Literacy through Coding and Applications	3
BROADENING & DEEPENING ELECTIVES			
OTHER BROADENING & DEEPENING ELECTIVES @			
Other BDEs			3

+ Select 1 course from the following choices:
AED23K or AED23L or AED23M

^ Student teachers reading a Minor in Mathematics & Computational Thinking must take AED23M Computer Literacy through Coding and Applications.

** ACR32A, ACR32B can be taken at Year 2 or Year 3.

@ Student teachers are required to read 6 AUs worth of other BDEs in total.

Year 3

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Sport Science	17
EDUCATION MAJOR			
EDUCATION STUDIES			
	AED32B	Teaching and Managing Learners at Secondary Level (Part 2)	1
	AED30E	Pedagogical Practices	1
CURRICULUM STUDIES 1			
Physical Education	APC32C	Instructional Methods in Physical Education	3
CURRICULUM STUDIES 2 (Align with Academic Discipline 2)			
Art	ACA32A	Children and Adolescent's Artistic Development and its Implications for Teaching	3
Biology	ACB32A	Pedagogies in Biology Education	3
Chemistry	ACY32B	Chemistry Planning and Instruction	3
Drama	ACU32A	Planning and Facilitating Theatre and Drama Education	3
English Language	ACE32B	Teaching of English at the Secondary Level: Writing and Representing	3
English Literature **	ACR32A	Teaching Prose	3
	ACR32B	Teaching Poetry	3
Geography	ACG32A	Classroom-based Teaching Strategies	3
History	ACH32A	Teaching and Learning of Secondary History and Social Studies I	3
Mathematics	ACM32A	Teaching and Learning Mathematics II	3
Music	ACI32C	Instrumental and Singing Skills for the Music Classroom	3
Physics	ACP32A	Physics Instruction & Microteaching	3
Social Studies	ACL32B	Inquiry-Based Learning Approach Towards the Teaching of Social Studies	3
PRACTICUM			
	APR30A	Teaching Practice 1	5
INTER-MAJOR			
	AED40A	Educational Research Project^	3
BROADENING & DEEPENING ELECTIVES			
OTHER BROADENING & DEEPENING ELECTIVES @			
Other BDEs			3

^ AED40A span two semesters.
** ACR32A, ACR32B can be taken at Year 2 or Year 3.
@ Student teachers are required to read 6 AUs worth of other BDEs in total.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
ACADEMIC DISCIPLINE MAJOR			
ACADEMIC DISCIPLINE			
AD Major		Sport Science	2
EDUCATION MAJOR			
CURRICULUM STUDIES 1			
Physical Education	APC42B	Instructional Strategies in Physical Education	3
CURRICULUM STUDIES 2 (Select 1 Curriculum Studies subject)			
Art	ACA42A+	Curriculum and Assessment in Art (Teaching of Art 3)	3
	ACA42B	Teaching of Art in the Classroom (Teaching of Art 4)	3
Biology	ACB42A	Assessment in Biology	3
	ACB42B	Innovative Biology Teaching	3
Chemistry	ACY42A	Assessment and laboratory issues in Chemistry	3
	ACY42C+	Trends and Issues in Chemistry Education	3
Drama	ACU42A+	Critical Pedagogies for Theatre and Drama Education	3
	ACU42B	Curriculum and Assessment for Theatre and Drama Education	3
English Language	ACE42A	Teaching of English at the Secondary Level: Listening and Speaking	3
	ACE42B+	Teaching Grammar at the Secondary Level	3
English Literature	ACR42A+	Designing Literature Curriculum and Assessment	3
	ACR42B	Teaching Drama	3
Geography	ACG42A+	Advanced Teaching Strategies in Geography	3
	ACG42B	Field-Based Teaching Strategies and Assessment in Teaching Geography	3
History	ACH42A+	Inquiry-based Experiential Learning: Fieldtrip Design for Secondary History	3
	ACH42B	Assessment and Evaluation in Secondary History	3
Mathematics	ACM42A	Teaching and Learning Mathematics III	3
	ACM42B+	Specialised Areas in Teaching and Learning of Mathematics	3
Music	ACI42D	Teaching Music as an Examination Subject at O- and N(T)-level	3
	ACI42E+	Creativity in Music Education	3
Physics	ACP42A	Assessment in Physics Education	3
	ACP42B+	Reflective Teaching and Inquiry in Physics	3
Social Studies	ACL42B	Assessing Learning in Social Studies	3
INTER-MAJOR			
ACADEMIC EXERCISE			
Sport Science	APA40D	Academic Exercise: Sport Science	6
PRACTICUM			
	APR40A	Teaching Practice 2	10

+ Offered to CS1 student teachers. CS2 student teachers may approach the course coordinator if they wish to sit in for the course.

AUs overview for Bachelor of Science in Sport Science and Education (Secondary)

Group of Courses	No. of AUs
ACADEMIC DISCIPLINE MAJOR	
Sport Science	42
EDUCATION MAJOR	
Education Studies	12
Curriculum Studies	
• CS1 (Physical Education)	15
• CS2 (Aligned with AD Minor)	9
Practicum	
• School Experience	0
• Teaching Assistantship	3
• Teaching Practice 1	5
INTER-MAJOR	
• Academic Exercise	6
• Academic Discourse Skills	3
• Education Research Project	3
Practicum	
• Teaching Practice 2	10
INTERDISCIPLINARY COLLABORATIVE CORE	
• Communication Skills for Teachers	2
• Digital Literacy	3
• Ethics and Social Contexts of Education	2
• Group Endeavors in Service Learning	3/2
• Multicultural Studies	3
• Sustainability: Society, Economy and Environment	3
BROADENING & DEEPENING ELECTIVES	
Minor	
• AD Minor	15
Other Broadening & Deepening Electives	
• Regulars and Upgraders; or	6 /
• TSP	18

Description of Academic Discipline Majors and Minors

ACADEMIC DISCIPLINE MAJORS

Art

The Art major develops learners' competencies in Visual Art through courses in studio practice and critical studies, enabling you to become confident and independent practitioners. Learning is conducted through a wide range of visual art courses spanning 2D and 3D media, contemporary digital technologies, and art theories. Courses are taught by accomplished artists and experts in the field in well-equipped, purpose-built studios. The programme will culminate with an Arts-based research project where you will develop your personal artistic voice and create a body of works for public exhibition.

Biology

The Biology major takes a broad approach to explore the science of life at all levels, from molecules to ecosystem. Courses offered cover the breadth of traditional and modern biology such as evolution, diversity, and ecosystems; cell structure and function; molecular genetics and microbiology; current genetics; physiological and biochemical processes occurring in both plants and animals; molecular biotechnology; behavioural biology; and developmental biology. Our courses use a range of teaching modes including lectures, practical/field trips, and academic exercise, through which to equip you with critical thinking, analytical reasoning, and communication skills.

Chemistry

The Chemistry major allows you to explore the nature of matter and gain an in-depth understanding and integration of concepts in chemistry through inquiry and research. Chemistry, as the "Central Science", holds key ideas essential for solving current and future problems, such as drug design, creation of new

materials for energy storage, and sustainable living. The courses encompass a broad range of topics on how matter is made, measured, and modelled. Foundations of modern chemistry, such as organic chemistry, inorganic chemistry, analytical chemistry, and physical chemistry, and advanced industrially relevant topics, including spectroscopy, organometallic chemistry, green chemistry, and drug design, form the core of the curriculum.

Chinese Studies

The Chinese Studies major will offer you a broad understanding of the numerous aspects of the Chinese language, literature, and culture. These range from linguistic to writing skills, from Chinese classical literature to modern literature.

With the rapid rise of China as a global economic powerhouse, there is a growing worldwide trend of learners seeking to master Chinese. Offered by the Asian Languages and Cultures Department in NIE, our major in Chinese Studies aims to equip student teachers in both the depth and breadth of the subject against this backdrop of growing interest in the language.

Drama

The Drama major develops creative competencies in theatre practice, performance theory and applied theatre, through embodied learning, critical analysis, and collaborative engagement. This interweaving of theory and practice enables you to identify how performance making and theoretical study provide pedagogical spaces to incorporate new educational thinking that includes 21st century competencies. The programme draws from theory, practice, history, pedagogy, and philosophy based in Western and Asian contexts, to respond critically to global trends in arts education and cultural policy. Courses are taught by accomplished practitioners, academics and industry experts and situated in the custom-built Nanyang Playhouse. The programme will culminate in a theatre production that draws from practice-led research and analysis,

providing learners with opportunity to concretise ideas and translate theatre knowledge into practice.

English Language & Linguistics

Language captures the very heart of human experience. We use it to make sense of the world, to record and remember significant events, to enact social transactions, to communicate our thoughts and feelings, and to teach others. Among the world's many languages, English has become a particularly important one that is used daily in a multitude of situations, modalities, settings and for a variety of purposes across the globe.

In choosing "English Language & Linguistics" as your first major, you will embark on an exciting and rigorous programme of study that is designed to provide comprehensive intellectual preparation in the study of your major. Undergraduates who read "English Language & Linguistics" will acquire the skills to understand and analyse language as a formal system, as a cognitive faculty, as well as an important tool in how people organize themselves socially. With a firm grasp of relevant theories, you will be equipped to articulate, represent, and apply this analytic understanding in ways that are appropriate for the different professional contexts you will encounter after graduation.

English Literature

The study of literature involves an exploration of human experience, as captured by a range of individual writers across time and across cultures. Over time, a close, careful, and increasingly sensitive reading of rich texts breeds the development of a curious, critical, nuanced and self-reflexive mind, as well as an appreciation of the multiple ways in which literary texts are intimately linked to the cultures and societies that produce them. You will have the opportunity to explore and study in depth not only canonical texts but also literature from Singapore and the region, World Literature, adolescent literature, and film texts. You will also gain an increasing

appreciation of the wide range of ways in which our interpretation and intuitive readings of these texts can be informed and complemented by diverse fields such as feminism, history, and psychoanalysis.

Food & Consumer Sciences

The Food & Consumer Sciences major will prepare you with the knowledge and research skills to handle issues related to food, personal health and wellness, and resources utilization to enable one to make informed decisions to live efficiently and effectively. It has a broad spectrum of content that employs a variety of teaching modes such as laboratory work, industrial attachment, and academic exercise, to provide you with inquiry skills and commercial experiences. The courses in this curriculum include food science and nutrition, wellness, textiles studies, personal and household resource management, consumer issues and research methods, product development, entrepreneurship in FCS, and industrial attachment.

Geography

The Geography major provides a well-rounded education in Geography as an academic discipline by focusing on the three key strands of Human Geography, Physical Geography, and Geographical Techniques. By the end of the programme, you will be well equipped with content knowledge in both Human and Physical Geography as well as be able to handle technical aspects of Geography through data analytics, Geographic Information System and remote sensing. You will also be trained in field methods. Furthermore, the Department’s flagship Sustainability Learning Lab provides a nurturing platform for student teachers and staff to connect over their respective interests in topics related to sustainability and sustainable development.

History

The History major encompasses a wide range of historical areas of study, which include global history, the history of war and violence, oral history, gender history, film history, and heritage studies. In your research work you will piece together evidence of what happened in the past by undertaking fieldwork, analysis of primary source documents, and oral interviews. At the same time, we also seek to imbue in you a deep understanding of the discipline of history and to inculcate in you the ability to read widely, think critically, and to be aware of the complexities and ambiguities in the world today and how these relate to the past.

Malay Studies

The Malay Studies major will enable you to cultivate scholarly knowledge and understanding of the Malays, in particular their language, literature, and culture. The Malay Studies major comprises courses on the Malay language ranging from traditional linguistics to the more applied domains such as literacy and bilingual education, on traditional and modern Malay literature, and on Malay culture which focus on cultural and religious values, the arts and civilization.

Mathematics & Computational Thinking

The Mathematics & Computational Thinking major will provide you the opportunity to pursue a wide range of courses in pure and applied mathematics and statistics. The core courses include Calculus, Linear Algebra, Discrete Mathematics, Introduction to Probability and Statistics, Number Theory, Computational Mathematics, Statistics and Differential Equations. Prescribed electives that allow you to study mathematics in depth include Real Analysis, Complex Analysis, Modern Algebra, Galois Theory, Modelling with Differential Equations, Graph Theory, Operations Research and Applied Statistics. Premised on Computational Thinking as the conceptual foundation required to solve problems effectively and efficiently, the curriculum has a balanced emphasis on

computability, constructive proofs, computer-based modelling and exploration. You will be exposed to coding and the use of mathematical software commonly used by many research mathematicians. You will deepen your core mathematical skills of problem solving and reading and writing of mathematics through a foundational course in mathematical problem solving and a capstone final year project.

Music

The Music major develops professional competencies in Music through instrumental and vocal lessons, ensembles, and seminars. Led by some of the finest musicians, scholars, and music educators in the field, it is distinctive in its coverage of the diverse musical traditions of Western Art, Pop & Jazz, Chinese, Malay, and Indian music with emphasis on both performance and scholarly skills. The programme culminates in with a capstone music project where you choose from a diverse array of options, including Performance Studies, Music Theory and Musicology, Music Education, and Improvisation.

Physics & Energy Studies

The Physics & Energy Studies major offers courses that cover the breadth of traditional and modern physics with additional advanced energy studies topics like nuclear physics and fission energy as well as plasma physics and fusion energy. Our course instructors use a wide range of teaching modes including lectures, physics demonstrations, small group tutorials, guided laboratory sessions, and research projects, through which we equip you with critical thinking, computational thinking, analytical reasoning, and communication skills.

Sport Science

The Sport Science major offers you a unique opportunity to explore a range of disciplines. You will have access to world class sporting facilities, as well as laboratories that are equipped with state-of-the art technology to help you pursue your passion

in the subject. With a faculty that is both experienced and diverse in expertise, you will gain both knowledge and skills in your journey in the realm of sports and well-being.

Tamil Studies

The Tamil Studies major offers a wide range of courses on Tamil language, culture, history, and society. Understanding the history of the Tamil language and literature will equip you to guide, support and facilitate learning in schools. Technology-enabled lessons, presentations, and research-writing learning experience will enable you to achieve in-depth content mastery.

The Tamil Studies major aims to develop you as a Tamil linguist who understands the theory and practice nexus. You will be updated on the nuances and demands of Tamil education in Singapore and around the world.

ACADEMIC DISCIPLINE MINORS

Primary Level Subjects (NIE)

Offered exclusively to student teachers in the Primary track, “Primary Level Subjects (NIE)” entails taking subject knowledge courses from two primary level subjects, namely, Art, English Language, Mathematics, Music, Physical Education, Science and Social Studies. The respective set of courses equips student teachers with subject content for primary school teaching. For example, a student teacher with two teaching subjects (e.g., English Language and Mathematics) would need to take courses in both English Language and Mathematics.

Art (NIE)

The Art (NIE) minor provides you the opportunity to learn about visual art and art education whilst majoring in another Academic Discipline. Courses are taught by accomplished artists, academics, and educators in the field in well-equipped, purpose-built studios. Learning is conducted through a wide range of

visual art courses spanning 2D, 3D and digital media. By the end of this minor, you will gain key knowledge, skills in art production and art education. This will support your further pursuits in this area.

Biology (NIE)

The Biology (NIE) minor includes a broad approach to explore the science of life at all levels, from molecules to ecosystem. Courses offered cover the breadth of traditional and modern biology such as evolution, diversity, and ecosystems; cell structure and function; and physiological and biochemical processes occurring in both plants and animals. Our courses use a range of teaching modes including lectures, practical/field trips, and academic exercise, through and which we will equip you with critical thinking, analytical reasoning, and communication skills.

Chemistry (NIE)

The Chemistry (NIE) minor allows you to explore the nature of matter and gain a broad understanding, integration of concepts in chemistry through inquiry and research. The courses encompass a broad range of foundational topics on how matter is made, measured, and modeled. These essential courses include organic chemistry, inorganic chemistry, and physical chemistry.

Chinese Literature (NIE)

The Chinese Literature (NIE) minor will enhance your understanding and knowledge of traditional and modern Chinese literary history and development. It covers major theories on critical textual and cultural analysis, and their applications. The courses revolve around the literary canon and writers, Chinese cultures, aesthetics, and philosophy.

Drama (NIE)

The Drama (NIE) minor provides you the opportunity to build your knowledge in drama and drama education whilst majoring in another Academic Discipline. Courses are taught by accomplished practitioners, academics and industry experts and situated in the custom-built Nanyang Playhouse. The course draws from theory, practice, history, pedagogy, and philosophy based in Western and Asian contexts, to respond critically to global trends in arts education and cultural policy. By the end of this minor, you will understand theatre performance making, and be able to perform and produce short plays. In addition, you will also have the knowledge and skills to create simple applied theatre programmes for specific communities.

English Language & Linguistics (NIE)

Language captures the very heart of human experience. We use it to make sense of the world, to record and remember significant events, to enact social transactions, to communicate our thoughts and feelings, and to teach others. Among the world's many languages, English has become a particularly important one that is used daily in a multitude of situations, modalities, settings and for a variety of purposes across the globe.

An English Language & Linguistics (NIE) minor will introduce you to the key tenets in this field as well as provide you with the opportunity to develop your critical understandings and skills though a systematic study of the English language. The core courses will acquaint you with some of the basic concepts of language use, phonetics, sociolinguistics, syntax, psycholinguistics, and educational linguistics. With this knowledge and skillset, you will be able to analyse both spoken and written discourse across a spectrum of linguistic environments and be able to produce texts for different contexts with a greater awareness of the socio-cultural implications of meaning-making.

English Literature (NIE)

As a well-established discipline with a rich and varied history. Literature inspires readers to imagine other worlds, encouraging empathy, intellectual curiosity, and cultural openness. The English Literature (NIE) minor will offer you the opportunity to acquire critical thinking and analytical skills that will stand you in good stead to navigate the intellectual, creative, and affective demands of today's world. Student teachers who take English Literature as a Minor in NIE will study core courses that equip them with fundamental close reading skills as well as a firm grounding in British, Singapore and Southeast Asian literatures. Through pedagogies that call for rigorous debate, informed critique, and self-reflection, you will be introduced to a range of critical approaches to literature with which you may deepen your understanding of how meaning is constructed and better analyses the relationship between literary texts and their specific socio-historical and cultural contexts.

Geography (NIE)

The Geography (NIE) minor encompasses foundational courses in Geography focusing on Human Geography, Physical Geography, and Geographical Techniques. You will be exposed to fundamental and contemporary concepts related to the three key strands and trained to develop a better understanding of the complex relationships between humans and natural systems. Furthermore, you will have access to the Department's flagship Sustainability Learning Lab, which provides a nurturing platform for students and staff to connect over their respective interests in topics related to sustainability and sustainable development.

History (NIE)

The History (NIE) minor encompasses the study of the essential skills of doing History using a range of historical case studies from Asia and Europe. You will learn the historical skills necessary for you to better know your own society in Singapore. You will learn international history to understand more about

Singapore's global context. The History Minor will provide you with knowledge of great power relations but also empower you to engage in writing 'history from below', or social history of the lives of ordinary people who also make history.

Malay Literature (NIE)

The Malay Literature (NIE) minor will enable you to develop a thorough knowledge and reflective understanding of Malay literary history and development, and major critical theories, and enhances your appreciation of intellectual traditions in traditional and modern literature. The courses revolve around identity, customs, culture, religion, thoughts and ideologies, aesthetics, and philosophy.

Mathematics & Computational Thinking (NIE)

The Mathematics & Computational Thinking (NIE) minor provides you the opportunity to pursue core courses in mathematics such as Calculus, Linear Algebra, Discrete Mathematics and Introduction to Probability and Statistics. Premised on Computational Thinking as the conceptual foundation required to solve problems effectively and efficiently, the curriculum has a balanced emphasis on computability, constructive proofs, and problem solving. As such, you will be exposed to coding and the use of mathematical software.

Music (NIE)

The Music (NIE) minor provides you the opportunity to develop your knowledge in music making and music education whilst majoring in another Academic Discipline. Led by some of the finest musicians, scholars, and music educators in the field, it is distinctive in its coverage of the diverse musical traditions of Western Art, Pop & Jazz, Chinese, Malay, and Indian music with emphasis on both performance and scholarly skills. By the end of this minor, you will understand foundational practices in music making and music education. You will also acquire musical skills through creating, performing, and responding.

Physics & Energy Studies (NIE)

The Physics & Energy Studies (NIE) minor offers courses that cover the breadth of physics. Our courses instructors use a wide range of teaching modes including lectures, physics demonstrations, small group tutorials, guided laboratory sessions, and research projects, throughout which we equip you with critical thinking, computational thinking, analytical reasoning, and communication skills.

Social Studies (NIE)

The Social Studies (NIE) minor provides you with an introduction to key topics underpinning the Social Studies (Secondary) syllabus, together with training in making inquiries into societal issues. The key content topics covered in the Minor include Singapore politics and society, globalization, social diversity, and identity. Through learning about these topics using an interdisciplinary, conceptual approach, you will develop empirical knowledge as well as theoretically and conceptually informed understandings of Singapore as situated within the context of globalization. The inquiry aspect of the Minor programme guides you towards crafting inquiry questions and carrying out investigations into pertinent societal issues. In sum, the SS minor equips you with content knowledge and practical competencies with respect to Social Studies education in the Singapore context.

Tamil Literature & CCE (NIE)

Literature is the mirror of a society and its life. It explores and exposes the life within home (Agam) and outside home (Puram) from 2,000 years ago. It is a living archive for the Tamil community and its traditions, beliefs, values, and thoughts. Education has been at the heart of the Tamil literature, gender and human equality have been expressed well in the literature then and now. Learning literature will broaden your knowledge and bring appreciation to your heart. Character and Citizenship Education (CCE) reinforces your values, knowledge, citizenry,

and life in Singapore. Your study of Literature and CCE will complement your Tamil Studies to give you a more comprehensive understanding.

Academic Discipline Major

This area of study covers the subject knowledge and skills of the academic discipline in question. It equips student teachers with the disciplinary foundation for postgraduate studies as well as the subject knowledge and skills bases to teach the subject.

The lists of Academic Discipline Majors and the respective list of courses for NIE's Bachelor of Arts and Bachelor of Science double major programmes are shown below.

Bachelor of Arts in an Academic Discipline and in Education (Primary/Secondary): Academic Disciplines

ACADEMIC DISCIPLINE (AD)	BA in AD & Ed (Primary)^^	BA in AD & Ed (Secondary)	
	AD Major	AD Major	AD Minor
Art	√	√	√
Biology			√
Chemistry			√
Chinese Studies*	√	√	
Chinese Literature*			√
Drama	√	√	√
English Language & Linguistics	√	√	√
English Literature	√	√	√
Geography	√	√	√
History	√	√	√
Malay Studies**	√	√	
Malay Literature**			√
Mathematics & Computational Thinking			√
Music	√	√	√
Physics & Energy Studies			√
Social Studies			√
Tamil Studies^	√	√	
Tamil Literature & CCE^			√

* Chinese Studies must be read together with a Minor in Chinese Literature.

** Malay Studies must be read together with a Minor in Malay Literature in the Primary track. However, in the Secondary track, student teachers can opt to read Malay Studies as AD Major and any other Arts subject as AD Minor but they will then not be considered as specialising in Malay Studies.

^ Tamil Studies must be read together with a Minor in Tamil Literature & CCE in both the primary and secondary specialisations. Student teachers reading Tamil Studies will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

^^ For the Primary Track, except for student teachers specialising in Chinese / Malay / Tamil Studies, the Minor is in “Primary Level Subjects (NIE)”.

Bachelor of Science in an Academic Discipline and in Education (Primary/Secondary): Academic Disciplines

ACADEMIC DISCIPLINE (AD)	BSc in AD & Ed (Primary)	BSc in AD & Ed (Secondary)	
	AD Major	AD Major	AD Minor
Art			√
Biology	√	√	√
Chemistry	√	√	√
English Language & Linguistics			√
English Literature			√
Geography			√
History			√
Mathematics & Computational Thinking	√	√	√
Music			√
Sport Science	√	√	
Physics & Energy Studies	√	√	√
Social Studies			√

ACADEMIC DISCIPLINE: ART

Table 1: AD Major Structure for Bachelor of Arts in Art and Education (Primary / Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAA10A	Visual Literacy	Core	3	-
	AAA10B	Drawing	Core	3	-
	AAA10C	Painting (2D Studies 2)	Core	3	-
	AAA10D	Sculpture (3D Studies 1)	Core	3	-
2	AAA20A	Art History	Core	3	-
	AAA20B	Ceramics (3D Studies 2)	Core	3	-
	AAA20C	Life Drawing (2D Studies 3)	Core	3	-
	AAA20D	Printmaking (2D Studies 4)	Core	3	-
	AAA20E	Installation and Public Art (3D Studies 3)	Core	3	-
	AAA20G	Digital Photography (New Media Studies 1)	Core	3	-
3	AAA30A	Digital Videography (New Media Studies 2)	Core	3	-
	AAA30B	Communication Design (Design Studies)	Core	3	-
	AAA30D	Visual Arts in Asia	Core	3	-
4	AAA40A	Visual Arts Education in Museums and Galleries	Core	3	-
	AAA40E	Major Studies (Exhibition)	Core	3	-
	AAA40G	Batik	Core	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters. AAA30D and AAA40G are cross listed with AAA28E and AAA18M respectively, offered as Broadening & Deepening Electives (BDEs).

AAA10A Visual Literacy

Art is important to societies, in ways that vary across historical periods and cultures. In order to appreciate this, we need to see that art is deeply connected to social spaces. This is the aim of the course.

Although art has a prominent visual dimension, it is not only about pictorial imagination. Spatial factors, such as the selection and manipulation of material, shape the way art is made, and the way it is used and presented. We will use a method for analysing art that emphasises its spatial dimension to understand “pre-

modern" and modern works of art, and to non-art images that draw from conventions of fine art.

AAA10B Drawing

This course investigates the nature of drawing from the perceptual domain, using drawing as a vehicle for visual inquiry to record from observation. This course is for anyone who cannot draw but would like to learn and will equip you with the skills to draw anything you see.

AAA10C Painting (2D Studies 2)

This course aims to prepare and reinvigorate some of the basic fundamentals of painting through the exploration of varies painting mediums. This course is meant to prepare to-be art teachers to handle 2 main focuses; the first, to provide a framework to identify key elements in various approaches so as to better prepare art teachers to focus on important areas of interest, the second, for student teachers to elevate their painting skills to a competent level where they can make effective and cohesive artistic decisions.

AAA10D Sculpture (3D Studies 1)

This studio course encompasses core sculptural concepts and techniques, including casting, molding and building with materials such as plaster, clay and wood. You will consider the use of three-dimensional expressive and representational media and its role in the formation of symbolic systems. Using a combination of studio-practice and theory, you will develop your own competence in three-dimensional representation and expressive processes.

AAA20A Art History

In the 1800s in Europe, a combination of social and technological changes led artists to search for a "new" art that had antipathies to art of the past. This art — broadly referred to as "modern art" — spread from Europe to the rest of the world in the 20th century. The course introduces you to certain key characteristics of modern art from the 20th and the 21st centuries. Its coverage may include works of art in the MOE syllabus.

Rather than delivering "art historical facts", the course will emphasise ways of thinking about modern art. Much of the class material will focus on art that has an uneasy relation with the past. Student teachers are expected to show familiarity with these ways of thinking about art by using them to analyse designated works of art in a thoughtful and reflexive manner.

AAA20B Ceramics (3D Studies 2)

This studio course investigates the use of clay, a traditional but exceptionally versatile medium in the 3D studio/classroom. It encompasses core ceramics concepts and techniques, including hand-building, wheel-throwing, glazing and firing. The learning of our cultural history through ceramic artefacts will also be incorporated.

AAA20C Life Drawing (2D Studies 3)

This studio course offers the opportunity to study the figure from first hand observational drawing from both academic tradition and contemporary artistic frameworks. You will be exposed to a range of skills and approaches through practical studio projects that will help you nurture expressive processes and a personal response in representing the figure.

AAA20D Printmaking (2D Studies 4)

1. Enable student teachers to extend their knowledge and skills in the basic concepts of printmaking process and experiment with various printmaking techniques, sufficiently achieving independent practice in a chosen medium,
2. Provide a positive starting point for further exploration and development of printmaking's rich possibilities.
3. Allow the student teachers to increase their capacity for image-making skills - learn more about printmaking and establish good workshop practices.
4. To communicate personal ideas and emotions in an artwork by suffusing the format of printmaking techniques.

AAA20E Installation and Public Art (3D Studies 3)

This studio module will explore the historical development of processes and approaches in topics such as Installation Art, Land Art and Public Art. The use of unconventional materials and the meaning behind their use will be studied. You will produce a body of work through which you will acquire working methods, research skills and knowledge necessary to successfully realize the full scope of your project. You will also continue to develop a critical awareness of contemporary and historical art issues and your application in the teaching environment.

AAA20G Digital Photography (New Media Studies 1)

This studio course introduces contemporary digital photography through the experience of technical, expressive, and conceptual methods of digital image making. You will be exposed to camera handling

techniques, composition skills, studio photography and experimental imaging. You will acquire working methods, visual research skills and knowledge necessary for the successful implementation of meaningful and aesthetic lens-based artwork.

AAA30A Digital Videography (New Media Studies 2)

This studio course builds upon Digital Photography and expands your visual language towards digital moving pictures. Through the experience of technical, expressive and conceptual methods of digital movie making, you will acquire working methods, visual research skills and knowledge necessary for the successful implementation of meaningful and aesthetic lens-based video work.

AAA30B Communication Design (Design Studies)

This studio course introduces you to learn about communicating ideas or information through arrangement of visual elements within a 2D through the use of space, type and image. You will acquire basic graphic design skills and realise impactful and meaningful 2D design works.

AAA30D Visual Arts in Asia

The course aims to deepen your appreciation of the visual arts of Asia. We will examine paintings, sculptures, objects and architecture from different historical periods, and will try to understand why they are made in a certain way, and why they continue to be made this way.

AAA40A Visual Arts Education in Museums and Galleries

This course will explore the educational role of museums and galleries and its relationship to art

education. The primary aim is to help you conceptualise and develop your own innovative gallery-based resources catered specifically for your own students, based on your understanding of the shortcomings of over-relying on museum-prepared educational materials for 'generic' students. Fieldtrip/s will be conducted to the various local museums and galleries to allow interactions with museum staff and upfront experiencing of educational programmes.

AAA40G Batik

This course introduces you to contemporary batik which is founded on the age-old tradition of wax resist. You will achieve a basic level of competency to the craft of contemporary wax resist and dye colours and to apply resist and dye colours on fabrics through understanding of materials and resist process and characteristics. You will also learn to translate ideas appropriate to the materials and techniques onto fabrics as surface designs.

AAA40E Major Studies (Exhibition)

This course engages you in learning to curate your artwork for the Final Year Project exhibition. With your artwork completed in AAA40C, the aspects of visual meaning within lighting conditions and spatial specificity will be explored in this course. The course will examine current exhibition and artist's work relevant to re-inventing the exhibition experience for the viewers.

ACADEMIC DISCIPLINE: BIOLOGY

Table 1: AD Major Structure for Bachelor of Science in Biology and Education (Primary / Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAB10A	Evolution, Diversity and Ecosystems	Core	3	-
	AAB10B	Physiological and Biochemical Basis of Life	Core	3	-
	AAB10C	Basic Molecular Genetics and Microbiology	Core	3	-
	AAB10D	Cell Structure and Function	Core	3	-
2	AAB20A	Current Genetics	Core	3	AAB10C
	AAB20B	Plant Evolution and Diversity	Core	3	AAB10A or equivalent introductory biology course
	AAB20C	Animal Evolution and Diversity	Core	3	AAB10A or equivalent (e.g. BS1001, CY1001)
	AAB20D	Ecology	Core	3	AAB10A or equivalent (e.g. BS1001, CY1001)
	AAB20E	Quantitative Biology	Core	3	-
	AAB20G	Biochemistry	Core	3	-
3	AAB30A	Field Study of Ecosystem Diversity in a Changing World	Core	3	AAB10# and AAB20# Series
	AAB30C	Animal Physiology	Core	3	-
	AAB30D	Plant Physiology	Core	3	AAB10B, AAB10D
4	AAB40A	Molecular Biotechnology	Core	3	AAB10C
	AAB40B	Behavioural Biology*	Core	3	-
	AAB40C	Developmental Biology	Core	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

* AAB40B can be taken at Year 3 Semester 2.

AAB10A Evolution, Diversity and Ecosystems

This foundational course provides an overview of the basic concepts of origin, classification and organisation of living organisms as they increase in complexity from lower to higher forms. Student teachers examine biological adaptation and phylogenetic relations among the major groups of

organisms (microorganisms, plants and animals), and explore natural ecosystems such as tropical rainforests, mangrove habitats, intertidal shores and coral reefs in activity-based learning platforms. Student teachers examine relevant approaches to understanding diversity and interactions of organisms in tropical ecosystems, to be equipped to teach these topics at the primary and secondary school levels.

AAB10B Physiological and Biochemical Basis of Life

This foundational course provides an introduction to the basic physiological and biochemical processes occurring in both plants and humans which enable them to function in the environment they live. This course will prepare student teachers with the basic knowledge to teach human and plant physiology at the primary and secondary levels.

AAB10C Basic Molecular Genetics and Microbiology

This is a basic course on the molecular basis of genetics, the study of heredity, and on microbiology, the study of bacteria, viruses and fungi. The course covers Mendelian inheritance; alleles and genotypes; traits and phenotypes; DNA replication; transcription and translation; regulation of gene expression; protein synthesis, transportation and degradation. It also covers the classification of microorganisms; how they grow and replicate; how they interact with the environment and their industrial and medical importance. Topics are taught with linkages to the current school curricula.

AAB10D Cell Structure and Function

This foundational course provides student teachers with an overview of the chemical constituents of cells, their biological roles and the organization and function

of eukaryotic cells. This course will prepare student teachers with the necessary knowledge to teach cell structure and function at the primary and secondary school level.

AAB20A Current Genetics

This course introduces undergraduates to intermediate-level concepts in classical genetics, heredity and molecular genetics that extend and elaborate on essential, basic concepts in these fields. There will be a focus on developing clear, conceptual understanding of fundamental underpinnings of genetics, while at the same time incorporating relevant recent advances in biomedical and molecular genetic research that reveal the underlying mechanisms and/or reasons for the function and dysfunction of genes. This learning is an essential component of core life science knowledge and is appropriate as a basis for advanced courses in molecular biology, biotechnology and related topics.

AAB20B Plant Evolution and Diversity

The diversity of plants has long been one of the cornerstones of "traditional" biology. Plant diversity, far from being a static body of knowledge, is a dynamic and progressive field. We will not only learn about the diversity of plants, but also about their evolutionary history. Developments in the field of plant diversity studies will be highlighted, as well as the links between plant diversity and other areas of the biological sciences. Topics to be covered will include a survey of the Plant Kingdom (including species commonly encountered in the local landscape), plant adaptations and selected life history strategies, and an introduction to plant phylogeny. Both the hands-on and discussion-

based elements of this course can link easily with both current and future school curricula.

AAB20C Animal Evolution and Diversity

This course builds upon basic biological knowledge about the diversity of life covered in foundational undergraduate courses, and focuses on the origin, classification and organisation of organisms in the kingdom Animalia. The course covers the defining characteristics of respective groups; the associated biological adaptations in animals as they increase in complexity; the phylogenetic relationships between the major groups; and their roles in natural ecosystems. Topics are taught with linkages to the current school curricula.

AAB20D Ecology

This course builds upon basic biological knowledge covered in foundational undergraduate courses, and focuses on the dynamics of species populations, and the interactions between organisms and their environment. Besides covering the theory and mechanisms in the respective concepts, the course explicitly links the former to real-world phenomena and applications. Topics are taught with linkages to the current school curricula.

AAB20E Quantitative Biology

This course introduces you to the various types of biological data with corresponding appropriate statistical methods for each type of data set. The course covers basic statistical tests that are commonly used to analyse biological data sets, with emphases on the respective underlying assumptions of the tests, and sound experimental design of research projects. Topics are taught with linkages to the current school

curricula, especially with respect to the design of experiments with suitable research questions for school project work. In the process, you will be prepared to become mentors for science- based project work.

AAB20G Biochemistry

This foundational course provides an introduction to the catabolic and anabolic processes occurring in cells. The course covers the principles of bioenergetics; biosynthesis and catabolism of carbohydrates, fats, amino acids and nucleic acids and the regulation of these pathways; integration of these metabolic pathways in the organism; and enzyme kinetics. Topics will be taught with linkages to the current school curricula.

AAB30A Field Study of Ecosystem Diversity in a Changing World

In this course, the concepts of evolution, diversity and ecosystems are studied in the field, applied in context of a changing world. In an experiential field-based learning environment, student teachers will explore various tropical ecosystems, e.g., coral reefs, seagrass beds, mangroves, tropical rainforests, and conduct projects to assess the health and vulnerability of these ecosystems using established experimental tools and techniques. The course will encourage student teachers to integrate all levels of biological organization in the context of adaptation for survival in the real world of Nature.

AAB30C Animal Physiology

This course aims to provide an understanding of the mechanisms at the gene, cellular and organismal levels that enable different types of animals to function

in the environment they inhabit. The topics covered will prepare teacher trainees with the skills and knowledge to teach physiology effectively in schools. With a deeper understanding of the different systems in different phyla of animal and the laboratory skills acquired, the trainee teachers will be able to contribute positively to the current school curricula.

AAB30D Plant Physiology

This course introduces student teachers to the integration of different biochemical and physiological processes into whole-plant physiology. It emphasizes on environmental stress physiology and acclimation to stress. Topics are taught with linkages to the current school curricula. It will prepare student teachers with the broad knowledge to teach plant physiology at the primary and secondary levels especially with respect to the design of plant physiology experiments with suitable research questions for school project work.

AAB40A Molecular Biotechnology

This course introduces undergraduates to the applied use of molecular biology tools and procedures to create useful products in areas of human and animal health, agriculture, food, and sustainable energy production. Molecular biotechnology is an important and major segment of the biotechnology industry, as well as an exciting and ever-growing field of science. Student teachers will gain insights into the research and industrial applications, as well as apply and extend core life science knowledge and skills learnt in prior biology courses.

AAB40B Behavioural Biology

This course introduces student teachers to the basic approaches to the study and measurements of animal

and plant behaviour. Concepts discussed during the course will be emphasised through practical sessions whereby student teachers get to conduct behavioural experiments to test hypotheses associated with various key principles of animal behaviour. Topics are taught with linkages to the current school curricula, especially with respect to the design of experiments to test hypotheses.

AAB40C Developmental Biology

This course utilises the genetic, molecular, and cellular mechanisms to explain the development of multicellular organisms. It considers how a single zygote gives rise to hundreds of diversified cell types, how these differentiated cells are organized into tissues and organs, how cell proliferation, differentiation and growth are regulated, and how an adult reproduces to generate the next generation. The emphasis is on the principles and key concepts that govern the process of development in different model organisms.

ACADEMIC DISCIPLINE: CHEMISTRY

Table 1: AD Major Structure for Bachelor of Science in Chemistry and Education (Primary / Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAY10A	Inorganic Chemistry I	Core	3	-
	AAY10B	Physical Chemistry I	Core	3	-
	AAY10C	Physical Chemistry II	Core	3	AAY10B
	AAY10D	Organic Chemistry I	Core	3	-
2	AAY20A	Organic Spectroscopy: Techniques and Applications	Core	3	AAY20D
	AAY20B	Analytical Chemistry I	Core	3	AAY10C
	AAY20C	Inorganic Chemistry II	Core	3	AAY10A
	AAY20D	Organic Chemistry II	Core	3	AAY10D
	AAY20E	Experimental Techniques in Chemistry	Core	3	AAY10A, AAY10B, AAY10C, AAY10D
	AAY20G	Organometallic Chemistry	Core	3	AAY10A
3	AAY30A	Analytical Chemistry II	Core	3	AAY20B
	AAY30B	Medicinal Chemistry	Core	3	AAY20C AAY20D
	Select any 1 elective				
	AAY33A	Polymer Chemistry and Technology	Pres	3	AAY10C, AAY20D
	AAY33B	Asymmetric Synthesis	Pres	3	AAY20C, AAY20D
	AAY33C	Green Chemistry	Pres	3	AAY10C, AAY20C, AAY20D
	AAY33D	Food Chemistry	Pres	3	AAY20D
	AAY33E	Natural Products Chemistry	Pres	3	AAY20A, AAY20D
4	AAY40A	Bio-inorganic Chemistry	Core	3	AAY20C
	AAY40C	Materials Chemistry	Core	3	AAY10C, AAY20C
	AAY40D	Environmental Chemistry	Core	3	AAY10C, AAY20C, AAY30A

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAY10A Inorganic Chemistry I

This course aims to provide you with a strong foundation in the fundamental concepts of general and inorganic chemistry that will enable you to make sense of the facts and principles covered in subsequent chemistry courses. The core concepts of atomic structure and chemical bonding will be discussed and subsequently applied in the topics of acids and bases and the chemistry of main group elements. These topics will be taught with special emphases on linkages to the current school curricula to enable you to have a deeper understanding of inorganic chemistry taught in school. Laboratory sessions will be incorporated to develop experimental skills related to inorganic chemistry.

AAY10B Physical Chemistry I

This is a fundamental course on physical chemistry. It aims to equip you with the knowledge to understand the behaviour of gases and interpret chemical phenomena in terms of energy changes and equilibria. These topics are taught with special emphases on linkages to the current school curricula. Laboratory experiments will be incorporated to develop technical skills related to contemporary physical chemistry.

AAY10C Physical Chemistry II

This course aims to cover the fundamental concepts of chemical kinetics, electrochemistry, and redox chemistry. These topics are taught with special emphases on linkages to the current school curricula to enable you to have a deeper understanding of physical chemistry taught in school. Laboratory experiments will be incorporated to develop technical skills related to related topics in the course.

AAY10D Organic Chemistry I

This course covers the fundamental concepts, mechanisms, chemical reactions, and practice of organic chemistry. Topics being covered include types of organic reaction mechanisms, properties, synthesis and reactions of alkanes, alkenes, alkynes, alkyl halides, benzene, aromatic compounds, alcohols, phenols, ethers, epoxides, aldehydes, ketones, amines, carboxylic acids and their derivatives. These topics are taught with special emphases on linkages to the current school curricula. Laboratory experiments will be incorporated to develop technical skills related to contemporary organic synthesis.

AAY20A Organic Spectroscopy: Techniques and Applications

This course covers the fundamental principles and applications of infrared, ultraviolet-visible and nuclear magnetic resonance spectroscopy. Principles and applications of mass spectrometry will also be introduced. Student teachers will acquire skills in the application of the organic spectroscopic techniques for the structural elucidation of organic compounds. These topics are taught with special emphases on linkages to the current school curricula.

AAY20B Analytical Chemistry I

This course covers the fundamental concepts and practice of analytical chemistry, which includes data handling and sample handling. Other basic techniques in analytical chemistry, including chromatography, UV-visible spectrometry, gravimetric analysis and electroanalysis are covered. Problem solving will be stressed in both the lecture and laboratory sessions.

AAY20C Inorganic Chemistry II

This course aims to cover the fundamental concepts of coordination chemistry. Topics to be discussed include the structure, electronic properties, and reactivity of transition metal complexes. These topics are taught with special emphases on linkages to the current school curricula to enable you to have a deeper understanding of inorganic chemistry taught in school. Laboratory experiments will be incorporated to develop technical skills related to contemporary inorganic synthesis.

AAY20D Organic Chemistry II

This course aims to cover further concepts of organic chemistry which includes reactions of carbonyl compounds with alpha hydrogen atoms and pericyclic reactions. The disconnection approach to organic synthesis and factors controlling the stereochemical outcomes of the reactions will also be included. These topics are taught with special emphases on linkages to the current school curricula to enable student teachers to have a deeper understanding of organic chemistry taught in school. Laboratory experiments will be incorporated to develop technical skills related to contemporary organic synthesis.

AAY20E Experimental Techniques in Chemistry

This is a laboratory-based course. This course aims to bring student teachers to a high level of competence in synthesis, making careful chemical and physical measurements, making logical deductions and in communicating results accurately and precisely. The course builds on the experimental skills acquired through the various chemistry offered in previous years. These topics are taught with special emphases on linkages to the current school curricula.

AAY20G Organometallic Chemistry

In this course, you will acquire knowledge on the structure, bonding, reactions and reaction mechanisms of important classes of organometallic compounds. You will also apply this knowledge to the understanding of homogeneous catalysis of organic reactions by transition metal complexes. The industrial importance of such catalysis will be emphasised.

AAY30A Analytical Chemistry II

This course covers advanced analytical chemistry concepts and techniques, with a focus on atomic absorption and emission spectrometry, advanced separation techniques (including chromatography and capillary electrophoresis) and mass spectrometry. Relevant examples from interdisciplinary areas will be discussed to illustrate the applications of these techniques.

AAY30B Medicinal Chemistry

This course introduces the basic principles and practice of medicinal chemistry. Student teachers will gain knowledge and understanding of the drug discovery and development process and the mechanism of action of the main classes of drugs used for the treatment of human ailments. Laboratory experiments will be incorporated to develop technical skills related to current medicinal chemistry practices.

AAY33A Polymer Chemistry and Technology

This course aims to provide you with the fundamental knowledge for understanding the classification of polymers, structure-property relationship, polymer technology and synthesis, stabilization, composites, and applications.

AAY33B Asymmetric Synthesis

This course covers the various methodologies for the control of absolute stereochemistry in organic syntheses which includes asymmetric alkylation of enolates and aldol reactions using chiral auxiliaries. Chiral reagents/catalysts for asymmetric reductions, oxidations and Diels-Alder reactions will also be included. These topics are taught with special reference to the syntheses of biologically important drugs and of natural products based on asymmetric methods.

AAY33C Green Chemistry

This course aims to familiarize student teachers with the principles for the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances. The ethics and practice of reducing the negative impact of chemical products and processes on human health and the environment will be emphasized.

AAY33D Food Chemistry

This course covers the chemistry of carbohydrates, protein, lipids, minerals, vitamins, and enzymes. In addition, colours, flavour, and additives will be discussed. There will be an emphasis on the applied aspects of food chemistry with the help of real-world examples. Group work and laboratory experiments will be integrated into the course to help student teachers to apply scientific principles in order to understand the chemical properties of foods.

AAY33E Natural Products Chemistry

Using the selected examples, this course on Natural Products Chemistry describes the process of

identification and isolation of natural products from natural sources, their chemical synthesis, biological activities, ecological relevance and possible applications in the fields of pharmacology, biotechnology and biomedicine. The selected natural products will be presented based on their structural classes, such as polyketides, alkaloids, terpenoids and phenylpropanoids.

AAY40A Bio-inorganic Chemistry

This course aims to introduce student teachers to the important roles played by metal ions in life processes. It emphasizes the structure and function of metal-binding sites found in metallo-biomolecules, and how living organisms manage the uptake, transport and storage of metals. The mode of interaction of synthetic metal complexes with biomolecules will also be discussed.

AAY40C Materials Chemistry

This course aims to provide you with the fundamental knowledge for understanding the properties and applications of important classes of materials. You will also be introduced to advanced techniques for the characterisation of materials. Current trends in the field of materials chemistry will be discussed.

AAY40D Environmental Chemistry

This course introduces you to the important aspects of environmental chemistry: sources, transport, reactions, sinks and effects of chemical species in air, water, land and living environments. The impact of human activity on the environment, and the management thereof, will also be addressed. Selected examples of relevant current/past environmental events will be introduced to you.

ACADEMIC DISCIPLINE: CHINESE STUDIES

Table 1: AD Major Structure for Bachelor of Arts in Chinese Studies and Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAC10C	Modern Chinese Phonology & *Hanyu Pinyin*	Core	3	-
	AAC10D	Modern Chinese Etymology and The Modern Chinese Script	Core	3	-
	AAC10E	Modern Chinese Lexicology	Core	3	-
	AAC10G	Modern Chinese Grammar	Core	3	-
	AAC10H	Language Skills Enhancement: Writing	Core	3	-
	AAC10J	Language Skills Enhancement: Oral Communication	Core	3	-
2	AAC20A	Social Context for the Teaching of Chinese in Singapore	Core	3	-
	AAC20B	Textual Analysis and Writing Skills	Core	3	-
	AAC20C	Chinese Linguistics and its Implication on Learning	Core	3	AAC10C AAC10D AAC10E AAC10G
	Select any 1 elective				
	AAC23A	Chinese Pragmatics	Pres	3	-
	AAC23B	Chinese Rhetoric	Pres	3	-
3	**Select any 3 electives**				
	AAC33A	Sociolinguistics	Pres	3	-
	AAC33B	Psycholinguistics	Pres	3	-
	AAC33D	Contrastive English-Chinese Linguistics	Pres	3	-
	AAC33E	Critical Reading and Writing in Chinese	Pres	3	-
4	**Select any 1 elective**				
	AAC43A	Historical Linguistics	Pres	3	-
	AAC43B	Corpus Linguistics	Pres	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

Table 2: AD Major Structure for Bachelor of Arts in Chinese Studies and Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAC10C	Modern Chinese Phonology & *Hanyu Pinyin*	Core	3	-
	AAC10D	Modern Chinese Etymology and The Modern Chinese Script	Core	3	-
	AAC10E	Modern Chinese Lexicology	Core	3	-
	AAC10G	Modern Chinese Grammar	Core	3	-
	AAC10H	Language Skills Enhancement: Writing	Core	3	-
	AAC10J	Language Skills Enhancement: Oral Communication	Core	3	-
2	AAC20A	Social Context for the Teaching of Chinese in Singapore	Core	3	-
	AAC20B	Textual Analysis and Writing Skills	Core	3	-
	Select any 1 elective				
	AAC23A	Chinese Pragmatics	Pres	3	-
	AAC23B	Chinese Rhetoric	Pres	3	-
3	**Select any 3 electives**				
	AAC33A	Sociolinguistics	Pres	3	-
	AAC33B	Psycholinguistics	Pres	3	-
	AAC33D	Contrastive English-Chinese Linguistics	Pres	3	-
	AAC33E	Critical Reading and Writing in Chinese	Pres	3	-
4	**Select any 2 electives**				
	AAC43A	Historical Linguistics	Pres	3	-
	AAC43B	Corpus Linguistics	Pres	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAC10C Modern Chinese Phonology & *Hanyu Pinyin*

This course systematically teaches modern Chinese phonetic system and basic knowledge of International Phonetic Alphabets (IPA) in order to enable student teachers to accurately master the initials, finals, tones, syllable structures and sound changes in modern Chinese. At the end of the course, student teachers should be able to skilfully describe and enunciate initials and finals, discriminate changes in Chinese intonations, correctly analyse the structure of syllables, accurately combine initials and finals, and

hence acquire the fundamentals of teaching Chinese phonetics.

AAC10D Modern Chinese Etymology and the Modern Chinese Script

This course aims to provide student teachers with the basic theories and knowledge about the modern Chinese writing system. Topics include the basic principles of grammatology, the nature and characteristics of Chinese characters, the emergence and development of Chinese characters, the evolution of graphic forms of Chinese characters, the theories and methods of the formation of Chinese characters, the three elements of modern Chinese characters, the organisation and standardisation of modern Chinese characters, the application of modern Chinese characters in Chinese education and IT.

AAC10E Modern Chinese Lexicology

This course aims to provide student teachers with the basic theories and knowledge about the modern Chinese lexical system. Topics include: lexical categories; morphemes, words, fixed phrases and lexical chunks; rules of word formation; lexical semantics; lexical items with regional features; lexical growth and standardization; typology of dictionaries and their defining style.

AAC10G Modern Chinese Grammar

This course systematically teaches modern Chinese grammar knowledge. The core content includes: Chinese grammatical features, content words and function words in modern Chinese, phrase types and segmentation methods in modern Chinese, sentence patterns and sentence classes in modern grammar, simple sentences and complex sentences, as well as

modern Chinese grammatical error analysis and modification of erroneous Chinese sentences.

AAC10H Language Skills Enhancement: Writing

Through the introduction of Chinese writing skills, this course aims at enhancing student teachers' Chinese writing skills and enabling them to discharge their teaching and administrative duties effectively and with confidence. They will be exposed to a variety of authentic written texts of different genre/text-types and be tasked to analyse the language features of the texts. Writing practice is a critical component of this course.

AAC10J Language Skills Enhancement: Oral Communication

This course aims at enhancing the CL oral communication skills of CL student teachers through the completion of a variety of authentic tasks in both formal and informal settings. Student teachers will be guided to make a comparison between the pronunciation of colloquial and Standard Chinese; analyse the differences in language features and language choice in formal and informal language settings; analyse the language features in a classroom setting, which includes giving instructions, explaining, questioning & responding etc. All the above analysis will be followed up with task-based oral practice.

AAC20A Social Context for the Teaching of Chinese in Singapore

Through the investigation of language policies, sociolinguistic changes within the Chinese community and Chinese Language educational reforms over the past few decades, this course provides a platform for student teachers to critically think through and exchange views on issues pertaining to the teaching

of CL in the local context. Topics include: language policy and language development; status of languages under the bilingual education system; sociolinguistic changes and change in student profile; types of CL learners and learning needs; MTL reviews and curriculum changes; implications to the teaching of CL.

AAC20B Textual Analysis and Writing Skills

This course aims to acquaint student teachers with good Chinese writing through close textual analysis of literary works and commentaries of different kinds of writing. It also aims to enhance student teachers' reading ability and sharpen their writing skills.

AAC20C Chinese Linguistics and its Implication on Learning

This course aims to reinforce student teachers' linguistic knowledge and understanding. They will be equipped with the essential linguistics theories (content knowledge) as well as pedagogical linguistic knowledge (pedagogical content knowledge). It also aims to improve their understanding of the relationship between Chinese linguistic knowledge and the learning of Chinese language skills in the bilingual context of Singapore.

AAC23A Chinese Pragmatics

This course examines how language is used to convey meaning in real-life discourse contexts. Topics include: indexical; conversational implicature; speech-acts; presupposition; discourse structure; coherence of conversation; metaphor; discourse markers.

AAC23B Chinese Rhetoric

This course aims to provide student teachers with the basic theories and knowledge about the modern

Chinese rhetoric in literature and everyday life. It will also help student teachers analyse and appreciate literary works. Topics include: various types of figures of speech as well as their functions and usages.

AAC33A Sociolinguistics

This course examines the relationship between language and society. Topics include: multilingual speech communities; social factors influencing language use; language spread and the emergence of regional varieties; features of Singapore Mandarin and issues with standardization; language planning, language shift, language maintenance and language death.

AAC33B Psycholinguistics

This course introduces to student teachers theories and models describing the psychological processes underlying the production, processing and representation of human language. The subject offers an overview of the theoretical and experimental knowledge of the field, and how this relates to (early) language education. Topics include: (first and second) language development and bilingualism; mechanisms of language acquisition; language processing in the human mind; and individual differences in various domains of language acquisition.

AAC33D Contrastive English-Chinese Linguistics

This course gives an introduction to Chinese-English contrastive analysis and the theories and practice of translation. Topics include: an introduction to synchronically contrastive linguistics and common problems in translation; contrastive analysis at the phonetic, orthographical, lexical, semantic and syntactic levels; dealing with non-equivalence at these

levels; textual non-equivalence and translation; cultural differences and translation.

AAC33E Critical Reading and Writing in Chinese

This course aims to familiarise student teachers with the form and conventions of academic writing in Chinese. The objective is to enhance critical reading and writing competencies through a variety of tasks, such as analysing given texts from various sources; constructing a focused, logical, coherent view-point; selecting and sourcing relevant research material; drafting, revising and editing a short essay; writing a mini research paper.

AAC43A Historical Linguistics

This course deals with the study of the histories and prehistories of languages, with the discovery of ancient connections between languages, and with the study of language change. Topics include: the fact of language change, lexical and semantic change, phonological change, morphological change, syntactic change, relatedness between languages, the comparative method, internal reconstruction, contact and the birth and death of languages.

AAC43B Corpus Linguistics

Through this course, student teachers will master the basic concepts and basic theories and methods of corpus. The main content includes three aspects. The first is to be able to use the corpus knowledge to design a small textbook corpus; the second is to take a corpus linguistic approach to study and solve the problems in Singapore Chinese teaching; third is to apply the textbook corpus knowledge analysis to Singapore Chinese textbooks Language elements, and cultivate students' language awareness.

ACADEMIC DISCIPLINE: DRAMA

Table 1: AD Major Structure for Bachelor of Arts in Drama and Education (Primary / Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAU10A	Acting 1: The Actor's Voice and Body	Core	3	-
	AAU10B	Theatre and Drama in Society: Historical Perspectives	Core	3	-
	AAU10C	Acting 2: Physical Theatre and Embodying Character	Core	3	-
	AAU10D	Contemporary Theatre: Styles and Conventions	Core	3	-
2	AAU20A	Dramaturgy and Directing	Core	3	-
	AAU20B	Evolution of Theatre and Drama: Practice and Philosophy	Core	3	-
	AAU20C	Playwriting and Script Analysis	Core	3	-
	AAU20D	Traditional Theatre: Styles and Conventions	Core	3	-
	AAU20E	Devising Theatre: Methods and Practices	Core	3	-
	AAU20G	Performance, Imagination and Play	Core	3	-
3	AAU30A	Technical Theatre: Staging and Design	Core	3	-
	AAU30B	Performance and Production: Rehearsing, Staging and Responding	Core	3	-
	AAU30C	New Theatre Practices	Core	3	-
4	AAU40A	Applied Theatre: Theory, Practice and Pedagogy	Core	3	-
	AAU40B	Young People's Theatre Practices	Core	3	-
	AAU40C	Research Frames in Theatre and Drama Education	Core	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAU10A Acting 1: The Actor's Voice and Body

This course examines basic acting principles and practices such as focus, energy, tension, commitment, and presence in relation to the actor's voice and body. It explores theories and processes of individual and collaborative preparation for acting on stage, engaging in presentational and representational modes of performance. You will learn key aspects of acting such as gesture, action and objective, rhythm, emotion and motivation to develop an awareness of acting

vocabularies that inform choices and capacities for being an actor. The course emphasises individual and shared ownership of the process, drawing from contextually grounded approaches to actor training that involve physical and vocal improvisation, critical discussion, reflective observation, rehearsals and performance.

AAU10B Theatre and Drama in Society: Historical Perspectives

This course will introduce the fundamental principles of theatre and performance making as well as performance analysis. It examines how theatre is developed from a range of sources, and explores ways in which scripted text is transformed, interpreted and manipulated. Working with the body, voice and performance space as critical performance elements, a number of 20th century theatre-making methodologies will be explored and examined. These include the theories and practice of Konstantin Stanislavski and Bertolt Brecht. Where practice approaches are concerned, there will be a particular focus on Realist (Stanislavsky) and Epic (Brecht) dramaturgical and performance strategies. In addition, the course will also introduce two modes of performance analysis, semiotics and phenomenology, and other ways to 'de-code' performances.

AAU10C Acting 2: Physical Theatre and Embodying Character

The course will examine socio-political and aesthetic issues that stem from making contemporary Southeast Asian Theatre, with particular emphasis on Singapore and a brief exploration of Malaysia, Indonesia and the Philippines. It will consider questions of identity, history, social and cultural change and the emergent trends that appear to characterise theatre in the region. Using plays from the region, the course will

explore the emerging themes, issues and images and consider the fusion of theatre forms in contemporary Southeast Asian theatre that indicate a wide range of global and regional influence. This will include engaging with theatre in relation to Southeast Asia as a region, the influence of traditional theatre on contemporary work and vice-versa, and the importance of socio-political contexts in relation to theatre performance. The course will also briefly consider the contemporary Southeast Asian theatre today as it experiences cross-cultural through-flows, globalisation and regional interchange.

AAU10D Contemporary Theatre: Styles and Conventions

This course examines the dynamics, principles and practice of contemporary theatre in relation to developments of modern, post-modern and avant-garde theatre in a global context. It brings together cultural vocabularies and practices from diverse parts of the world and explores the styles and conventions that have emerged in contemporary performance making and thinking, with a particular focus on theatre from the mid twentieth to early twenty-first century. The course will examine the work of innovative and pioneering local and international theatre practitioners and theorists such as Antonin Artaud, Peter Brook, Ariane Mnouchkine and Robert Wilson. It engages students in research, practice and discussion on the historical, political, theoretical, practical and philosophical relevance of contemporary theatre, and draws from a range of resources that include critical theory, published texts, audio-visual recordings, live performances and practical workshops.

AAU20A Dramaturgy and Directing

This course engages in learning and analysing the skills and capacities of a director and dramaturg in relation to theatre-making. It explores the practices and philosophies that underpin the work of directing and dramaturgy as critical aspects of performance and production. You will examine how directing is informed by particular aims and objectives, ideologies and aesthetics that engage the director, and develop dramaturgical approaches to researching, critiquing and questioning how these frameworks can be concretised and advanced. You will also engage in directing a short play or excerpt of a play, and developing a dramaturgical portfolio in relation to the research and development of another student's play.

AAU20B Evolution of Theatre and Drama: Practice and Philosophy

In this course an examination of the evolutionary nature of theatre and performance will be examined in relation to philosophical discourses, critical theory, cultural and social theory of the 20th century. It will consider how critical discourses such as phenomenology, semiotics, feminism, deconstruction and postcolonialism have had significant influence on theatre and performance and continue to do so. Contemporary and poststructuralist forms such as feminist theatre, postcolonial theatre, queer theatre and postdramatic theatre will be interrogated as ongoing responses to a changing global context. Significant attention will also be paid to performance theory and concepts of performativity both in theatre and social drama. In addition, drama students will also develop a philosophically informed vocabulary of theatre terms whose application will be explored in practical workshops and performance projects. This

course is important for drama students to be equipped with theoretical and critical knowledge that explains the conditions of theatre today and is knowledge necessary for them to more effectively teach drama to school students.

AAU20C Playwriting and Script Analysis

In this course you will work both individually and in small groups as you examine playwriting processes, script analysis and drama conventions to consider the role of the sole and collaborative playwright through writing exercises, improvisational and play-building techniques and research. You will examine some playwrights' methodologies and analyse a range of scripts that have been published as texts and used in performance. You will also be required to read, watch and/or critique works by local playwrights as well international ones. A range of writing processes will be explored, leading to a variety of end-products – for example, from scene-work to the development of treatment for multi-media performance; from dramaturgical and/or critical approaches to script analysis to the development of short playscripts. You will consider the place of playwriting in the broader context, including theatre in the community, drama education and theatre for special purposes.

AAU20D Traditional Theatre: Styles and Conventions

The course will examine some major traditional theatre forms that continue to be practiced and taught in Asia such as Kathakali, Noh, Chinese Opera and Wayang Kulit. It will involve discussions focussed on the histories of these forms, their socio-political contexts and continued applications in contemporary culture. The course will entail negotiating a process of working with traditional theatre forms as contemporary theatre

practitioners and educators. There will be opportunities for practical learning through workshops, watching audio-visual media and classroom dialogue to explore connected ideas and interrogate their relevance. You will also engage in making short performances that draw on their own application and understanding of these forms.

AAU20E Devising Theatre: Methods and Practices

This course engages in contemporary approaches for devising theatre that include improvisation, storytelling, scene-building and interactive staging. It introduces aspects of devising theatre and playbuilding that move from process to product, giving you opportunities to create and perform short, devised works and critically reflect on that process and performance. Comprehension is enhanced by critical considerations of how to structure performance, articulate thematic frameworks, and respond aesthetically to critical feedback. You will participate as performers/facilitators/devisers in generating collaborative processes, researching relevant ideas and issues, as well as developing and incorporating resources for staging. The course will also explore the ideas of leading theatre practitioners and companies locally and internationally.

AAU20G Performance, Imagination and Play

You will investigate notions of performance, imagination and play in relation to the study of theatre and drama education. Using key terms that operate in the work of theatre-making and drama learning, you will engage with how the dynamics of developing performance and learning drama are intertwined with the artistry of performance, imaginative frames of engagement and creative opportunities for play.

Particular terms that emerge from theoretical discourses related to these areas will be examined and applied in relation to drama as a pedagogy and theatre as an art form. You will draw from the writings of Richard Schechner, Victor Turner, Maxine Greene, Ken Robinson, Chris Johnstone, Thomas Henricks, and others. You will then relate and apply these ideas to the pedagogy of performance and the implications for drama education in particular. Reflective practice (praxis) will also form an integral aspect of the course and you will be required to engage with the processes of discussion, experimentation and interrogation of drama and theatre as critical spaces for learning and creativity.

AAU30A Technical Theatre: Staging and Design

The course will be an investigation of performance across a range of creative media and technologies. It will apply contemporary theories of performance, such as postmodernism and posthumanism, consciousness and the virtual double, telematics and telepresence, and liveness and mediatisation to critique and devise performance in contexts alternative to conventional theatre, with a primary focus on technology. The course seeks to inform you of the increasing use of technology in performance and encourages students to think critically about the various philosophical, aesthetic, cultural and critical issues arising from this interface of technology and theatre.

AAU30B Performance and Production: Rehearsing, Staging and Responding

In this course you will have the opportunity to create, design, plan for, manage and perform in a theatre production. Ensemble or individual work, which can include making theatre for adults and/or children, will

be developed with the view to engaging you in the workings of experiencing a production from its beginning to end. The process of planning and shaping a performance, rehearsing the production, staging it technically, designing the mise en scene, and responding to an audience, will be integral to the learning process. This will be critically reviewed by peers and provide platforms for public viewing or constitute a work-in-progress.

This course represents the final collaborative theatre work of the cohort. The character of the production will depend upon the further developmental needs of the group at that time – for instance, it could take the form of a devised theatre-in-education piece to be toured through schools, if co-operative creation and the educational nexus were considered the most important areas to develop further. Or it could be a classic production, or an interdisciplinary performance piece. The production work will grow out of continuing drama training that is out of processes that will be valuable beyond the context of the immediate performance. It will also be theorized and subject to critique and review to place it firmly in the arena of work-in-progress, however, much it is, at the same time, aiming to be a polished topping-out ceremony.

AAU30C New Theatre Practices

The course will be an investigation of performance across a range of creative media and technologies. It will apply contemporary theories of performance, such as postmodernism and posthumanism, consciousness and the virtual double, telematics and telepresence, and liveness and mediatisation to critique and devise performance in contexts alternative to conventional theatre, with a primary focus on technology. The course seeks to inform of the increasing use of

technology in performance and encourages critical thinking about the various philosophical, aesthetic, cultural and critical issues arising from this interface of technology and theatre.

AAU40A Applied Theatre: Theory, Practice and Pedagogy

This course will articulate and examine the different approaches to, and forms of, Applied Theatre such as Community Theatre and Theatre for Development. It will involve reading about, discussing, and understanding the histories of Community Performances and why they continue to be practiced and advance in various parts of the world. The course will engage you in the theory and practice of Applied Theatre within non-formal educational contexts such as Community Centres, Hospitals, Youth Centres, etc. You will look at the theoretical and pedagogical approaches that inform how Applied Theatre projects are created, planned and evaluated. You will engage in basic principles related to the making of such forms and will also look at the socio-political implications of generating Applied Theatre projects within the Singapore context.

AAU40B Young People's Theatre Practices

A survey of theatre for, by and about young people, this course will investigate current philosophies, practices, and approaches to involving young people in the process of making theatre, particularly in Singapore. It will focus on modes of devising and presenting children's theatre, youth theatre, Theatre-in-Education and community-based performance in a seminar-practical workshop format, with a major performance component. You will work through a play-building process to devise material suitable for the aforementioned different groups of people, with

themselves taking on the roles of performers and/or facilitators. The course will question the relevance and value of existing practices of theatre-making by and for youth and the community, and the need for constant evaluation. You will also be tasked to research and propose ideas with Research Presentations and attend at least one theatre performance/ workshop in Singapore for young people. Guest speakers may be invited to share their experiences during workshops.

AAU40C Research Frames in Theatre and Drama Education

This course will introduce you to arts-based research theories and practices that are relevant to the investigation of Theatre and Drama Education. This will include a broad introduction to qualitative methodologies, and closer examination of approaches used in theatre, performance and drama education research like ethnographic fieldwork, phenomenology, narrative inquiry, case study and reflective practice. You will also examine related theoretical underpinnings for developing your own research exercise for the Academic Exercise. This will prepare you to identify and articulate a research question and then develop a methodological framework to investigate the proposed question.

ACADEMIC DISCIPLINE: ENGLISH LANGUAGE & LINGUISTICS

Table 1: AD Major Structure for Bachelor of Arts in English Language & Linguistics and Education (Primary / Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAE10B	Language in Context	Core	3	-
	AAE10C	Exploring the Grammar of English	Core	3	-
	AAE10D	Exploring the Words and Sounds of English	Core	3	-
	AAE10E	Introduction to Linguistics	Core	3	-
2	**Select any 6 electives**				
	AAE23B	Perspectives on Pedagogical Grammar	Pres	3	-
	AAE23C	The Social Variation of Language	Pres	3	-
	AAE23G	Understanding Reading	Pres	3	-
	AAE23H	Understanding Writing	Pres	3	-
	AAE23K	The Role of Language in Education	Pres	3	-
	AAE23M	Language and Literacy	Pres	3	-
	AAE23N	Aspects of Early Literacy	Pres	3	-
	AAE23Q	Pragmatics	Pres	3	-
	AAE23R	Syntax	Pres	3	-
	AAE23S	The Structure of Singapore English	Pres	3	-
	AAE23T	Language Development: Psycholinguistic and Sociolinguistic Perspectives	Pres	3	-
	AAE23U	Text Analysis: Systemic Functional and Critical Perspectives	Pres	3	-
	AAE23V	Technology in Language Education	Pres	3	-

Cont'd

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
3	AAE30A	Research Methods	Core	3	-
3/4	**Select any 5 electives**				
	AAE43D	Topics in Phonetics / Phonology	Pres	3	-
	AAE43E	Topics in Pragmatics	Pres	3	-
	AAE43G	Lexicology and Lexicography	Pres	3	-
	AAE43H	Critical Discourse Analysis	Pres	3	-
	AAE43J	English in New Cultural Contexts	Pres	3	-
	AAE43K	Multiliteracies and the Language Classroom	Pres	3	-
	AAE43L	Bilingual Education	Pres	3	-
	AAE43P	Special Topics in Language & Education	Pres	3	-
	AAE43Q	Language Curriculum Design and Development	Pres	3	-
	AAE43R	Understanding Talk-in-Interaction	Pres	3	-
	AAE43S	Literature in the Language Classroom	Pres	3	-
	AAE43T	Language, the Learner, and the Curriculum	Pres	3	-
	AAE43U	Language Assessment and Evaluation	Pres	3	-
	AAE43V	Topics in Systemic Functional Grammar	Pres	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAE10B Language in Context

This course aims to help student teachers to develop into systematic and critical observers of language as they use and encounter it in different contexts. As we examine spoken and written texts from across a variety of settings, student teachers will be introduced to a beginner's framework and metalanguage for talking about texts, interactions, and social context. These will enable student teachers not only to appreciate how language works to enable purposeful communication in context, but also to understand how it often works to mask underlying purposes and values. The course also explores how language interacts with the visual mode in texts, encouraging student teachers to consider what is needed for us to

understand the increasingly multimodal texts in today's society and what this might mean for them as future teachers of English.

AAE10C Exploring the Grammar of English

This course introduces grammar as the study of the different parts of the English sentence and how these parts relate to each other. It covers the full range of units – the individual words, which combine with other words to form phrases, which, in turn, combine with other phrases to form clauses. The course draws attention to the key features of the major constituents of the English sentence, and the various functions they perform. Student teachers are also given a brief introduction to the two main approaches to the study of grammar – the formal and the functional.

AAE10D Exploring the Words and Sounds of English

This course will introduce student teachers to the basic concepts of English phonetics, phonology and morphology, and some implications for English pronunciation teaching and learning. In the study of phonetics and phonology, student teachers will explore the patterns of speech sounds in English words and sentences. They will become familiar with the International Phonetic Alphabet (IPA) and be able to read and produce phonetic transcriptions. They will also learn about the production of vowels and consonants, as well as the various articulatory processes involved. Key aspects of English phonology: phonemes, phones, allophones, co-articulation effects, syllable structure, intonation, word and sentence stress will be covered. Student teachers will also be introduced to basic phonological theory and the concept of distinctive features. In the study of morphology, student teachers will learn the basic

elements of English words: free (lexical/functional) and bound (derivational/inflectional) morphemes, and the distinction between morphs and allomorphs. In addition, they will deepen their understanding of the main word formation processes (e.g. borrowing, compounding, blending, clipping, etc.). Through this course, student teachers will be able to discuss the relationships amongst phonetics, phonology, and morphology, and to consider the variation amongst different varieties of English. There will also be opportunities for the application of knowledge gained on the course to their roles as users and prospective teachers of the English Language.

AAE10E Introduction to Linguistics

This survey course offers an introduction to linguistics which is the scientific study of human language. The course provides an overview of the major branches of linguistics, focussing on English. Students will learn about the history and structure of English as well as broader ideas about how language relates to the mind, society and education. Connections between these various branches of linguistics are emphasised. The course provides the necessary disciplinary foundation and basis for further linguistic investigations in subsequent courses.

AAE23B Perspectives on Pedagogical Grammar

This course combines theoretical discussion about various aspects of pedagogical grammar with skills-based learning aimed at pedagogical practice. The discussion will be informed by insights from linguistic theory and description, second language acquisition research, second language pedagogy, and participants' own experience of learning grammar. We will examine commonly employed methods of

grammar instruction in relation to methods suggested by research as most effective. This examination will be set in the context of the controversy over whether formal grammar instruction is useful in enhancing second language acquisition. Student teachers will develop a deeper understanding of past approaches of teaching grammar in the language classroom and discuss current practice and research surrounding the relative strengths and weaknesses of these different approaches.

AAE23C The Social Variation of Language

The course introduces student teachers to sociolinguistic methods of studying language, with a focus on the English language. Student teachers will study regional, social, and stylistic variation in English and explore the causes and consequences of language variation and change. Student teachers will critically examine how issues of power come into play through the interaction of language with gender, education, and policy making, particularly in bilingual and multilingual contexts. Discussion of issues such as language maintenance and language shift, the emergence of new language varieties such as pidgins and creoles, and the impact of globalization and new communicative orders on the status of languages will also be covered.

AAE23G Understanding Reading

This course surveys theoretical and research perspectives on reading. Relevant research work done in the area of language research and education during the last quarter of the 20th century as well as emerging conceptions of reading and literacy will be reviewed. Special attention will be given to how our understanding of reading has significantly changed

during this period and how this will influence reading instruction in general and in the Singapore classroom. Throughout the course, the link between theory and practice will be highlighted and elaborated on. Key empirical research findings that have found their way into the EL curriculum and teaching practices will also be discussed.

AAE23H Understanding Writing

This course offers an introduction to different theoretical perspectives on the nature of writing and composing. Various types of writing and composing in both school and non-school contexts will be explored. Student teachers will also have the opportunity to consider how advances in new technologies have both changed the nature of the writing process, as well as afforded new ways of investigating and understanding written texts and/or writing instruction.

AAE23K The Role of Language in Education

This course explores the centrality of language in education, where it is both the medium and the message. Through language, the process of teaching and learning takes place, and one of the principal aims of education is to foster student teachers' ability to use language. Among the key questions raised are the following: What is the relationship between language and learning, and how can teachers use language effectively to promote learning? Which language, or types of language, should be taught in school and why? Why do some students learn the language, or types of language, of schooling more readily than others?

AAE23M Language and Literacy

This course is an introduction to literacy studies. It focuses on the development of literacy in general, and specifically, the relationship between people's lives and their involvement in language learning. In addition, home, school and community literacy practices will be explored and discussed.

The course has been designed to be both theory-driven and practice-oriented. With knowledge from both perspectives, student teachers are encouraged to carry out their own research into an area of literacy and critically evaluate literacy events and practices in their daily lives.

AAE23N Aspects of Early Literacy

This course introduces student teachers to the issues surrounding literacy acquisition in young children from 0-6 years. It will provide both a sound theoretical base and practical experience regarding the language and literacy of early learners. Student teachers will acquire an understanding of specific problems encountered by children who struggle to read and write in English. Some reasons for this problem are the mismatch between the dominant home language and medium of instruction, along with social class. Student teachers will be introduced to pre-school programs in other countries. The course will introduce biliteracy which means reading and writing in two or more languages. Finally, the course will also discuss some ways of measuring the components of early literacy in young children.

AAE23Q Pragmatics

Pragmatics is an area of study within linguistics that explores how we communicate in particular socio-cultural contexts. Pragmatics helps us to answer

questions such as why we communicate the way we do, how it is possible that we can understand one another even though we are all different individuals, and why sometimes communication breaks down in intercultural encounters. In today's globalised world, it is increasingly important to develop awareness of how people from different cultural backgrounds communicate so that we can avoid conflicts and maintain harmony and solidarity. This course aims to provide student teachers with an overview of pragmatics as an academic field of study and equip student teachers with skills needed for conducting a small-scale research project in pragmatics and for analysing data on pragmatic language use.

AAE23R Syntax

This course introduces student teachers to modern syntactic theory within the framework of Generative Grammar. We aim to cover important concepts such as lexical categories, phrase structure rules, grammatical relations, constituency, theta roles, dependencies, and movement. In this course, student teachers will adopt the scientific method, garner analytical skills and critical thinking abilities used in the study of modern syntax and apply them to natural language data from English and various other languages.

AAE23S The Structure of Singapore English

This course examines the structure of Singapore English: its grammar, morphology, phonology, lexis and discourse. This is achieved by examining Singapore English as a new variety of English in its own right, and also by comparison with standard international English. Throughout the course, student teachers will carry out investigations of their own

variety of (Singapore) English and relate these to issues and practices of the use of the informal variety of Singapore English in Singapore schools.

AAE23T Language Development: Psycholinguistic and Sociolinguistic Perspectives

This course examines features, theories and issues of language acquisition and development. You will understand how the processes and outcomes of language learning are influenced by individual cognition as well as linguistic and social factors in the environment. The course introduces the path of language development for English monolinguals and bilinguals at home and in school. Special features of language acquisition and development in multilingual societies are considered. Knowledge gained from this course will enable you to make crucial decisions in future teaching.

AAE23U Text Analysis: Systemic Functional and Critical Perspectives

This course builds on your basic knowledge and understanding of how language functions in society. It focuses on “everyday texts” and genres that are used in society, such as newspapers, advertisements and websites to probe into the various ways in which meaning is created by different people for different purposes in society. It provides you with a set of analytical tools and metalanguage to help you critically examine various monomodal and multimodal types of texts, thereby providing you with a basis for interrogating how reality is represented in the world. In addition, you will also be encouraged to think about how this perspective of texts can inform and influence their teaching in the classroom.

AAE23V Technology in Language Education

This course equips future English language teachers with research-informed strategies for using technology to support the development of language skills and systems. You will explore a range of technological tools and platforms, grounded in current research, to understand how these can enhance language teaching and learning. Through critical engagement with contemporary research and selected readings, you will gain insight into the pedagogical affordances of technology-assisted language instruction. You will learn to identify, evaluate, and implement evidence-based digital strategies with real-world classroom applicability. The course culminates in a capstone research proposal in which you design an inquiry into the potential impact of specifi c edtech tools on language learning outcomes. By bridging theory and practice, this course fi lls a key gap in the current curriculum and prepares you to teach with confi dence, innovation, and technological fl uency in 21st-century classrooms.

AAE30A Research Methods

This course focuses on the various research methods employed in the study of English Language and Applied Linguistics, and covers a range of theoretical, practical, and ethical issues in language-related research. It examines principles for doing empirical research on language-related issues, introduces quantitative and qualitative methods commonly used for conducting such research, and provides hands-on experience with research designs, instruments for data collection, quantitative and qualitative methods of data analysis, evaluation of published research, and research report writing.

AAE43D Topics in Phonetics / Phonology

This course focuses primarily on providing a broad background on phonological theory, introducing basic methodology and skills for experimental work in phonetics and/or phonology. The course incorporates discussions on current developments in the fields of phonetics, phonology, and world varieties of English pronunciation. Through focusing on theory, experimentation, and discussion, the course aims to extend knowledge of phonetics and phonological concepts to enable their application in speech analysis and pronunciation teaching in the classroom.

AAE43E Topics in Pragmatics

This advanced course on pragmatics will revisit at a deeper level some of the key concepts in pragmatics covered in earlier course(s), and address current issues and debates within the field of pragmatics at the interfaces with other areas of study within linguistics (e.g. semantics, grammar, morphology, the lexicon, prosody and intonation, language change), and in specific contexts (e.g. in classrooms, the workplace etc.). The specific topics may vary from year to year.

AAE43G Lexicology and Lexicography

This course focuses on the history, design and use of dictionaries, and innovations in the design of lexical resources for language learners. It explores the processes by which lexicographers compile dictionary entries and also the factors which affect the type, extent and focus of the information presented in language learning resources for language learners. A feature of the course is a hands-on review of corpus-based methods in language description for compiling dictionaries and other reference resources.

AAE43H Critical Discourse Analysis

This course aims to provide both a theoretical and practical introduction to concepts and techniques of Critical Discourse Analysis. CDA takes the view that language is (a) not simply a system of grammatical rules but a set of resources that people use to realize their interests in communication, and (b) not simply a medium of communication but a social practice that shapes society. A critical analysis of textual and multimodal communication practices therefore entails uncovering how individual, group, and institutional interests and ideologies are realized through the linguistic and visual choices of text producers. In this course, we will explore this central question through readings and hands-on work with multimodal data.

AAE43J English in New Cultural Contexts

This course surveys the socio-cultural and linguistic characteristics, and the roles and functions of new varieties of English in societies around the world. The main objective is to increase student teachers' understanding of the characteristics of New Englishes and the development of new meanings and structures in globalized cultural contexts. A range of issues related to the spread of English, such as language and identity, decolonization and the search for cultural roots in new literatures in English will also be examined.

AAE43K Multiliteracies and the Language Classroom

This course examines language and literacy teaching in the 21st century context, and asks what it means to be "multiliterate" in a society which is increasingly characterised by multiple media and semiotic modes as well as by cultural and linguistic diversity. Specific issues discussed include: How is knowledge

constructed (differently) when it is represented in language, image, gesture, and/or other modes? How do new combinations of 'meaning potential' in texts and genres affect the processes of reading and writing? Does learning happen differently when we are taught in traditional ways versus through computer-mediated means in digital-technology-enabled classrooms? How are we to develop multiliterate capacities in our students and in ourselves? How might a 21st century language and literacy pedagogy accommodate, promote, and profit from linguistic, semiotic, and cultural diversity of various kinds?

AAE43L Bilingual Education

The course includes an exploration of issues in societal bilingualism. It will include discussion on models of bilingual education, the roles and functions of languages, e.g. official, mother tongue languages in multilingual communities. Issues related to linguistic minorities, socio-psychological aspects of bilingualism: attitudes to language, culture, identity & ethnicity, factors influencing language maintenance and shift, and the politics of language policy planning will be examined.

AAE43P Special Topics in Language & Education

This course will focus on subjects, key texts or persons that have played an important role in the study of language and education. Because of its specialised nature, the course will give student teachers a chance to explore a topic or the work of an educational linguist in greater depth. Topics vary with the instructor and the interests of student teachers.

AAE43Q Language Curriculum Design and Development

This course aims to provide student teachers with a general understanding of the major approaches, theories, and issues of language curriculum and construction. It also aims to equip the student teachers with the ability to critically analyse, design and evaluate a language curriculum. Student teachers will be required to apply theoretical concepts and principles in their design and development of the language curriculum. The course provides a platform for student teachers to engage with the process of curriculum development while considering the school, national and international contexts.

The course will address curricula in both primary and secondary environments, allowing each student teacher to focus on the teaching context most relevant to him/her. The intention is to specifically focus on the teacher as author of curriculum construction by engaging the student teachers in critically reflecting on processes of developing/redesigning curriculum.

AAE43R Understanding Talk-in-Interaction

This course aims to provide you with an understanding of what underlies our ability to talk. More specifically, the course examines what patterns, practices, methods, structures and organisations constitute our interactional competences. Through the course, you will be introduced to the close and detailed observation of talk-in-interaction (including classroom interaction) and to some of the systematic patterns found in conversation. Using recordings of naturally occurring conversation and their transcripts, the course aims to develop your ability to analyse everyday conversation and pedagogical discourse on your own. The

assignments and project are designed to give you hands-on experience of analysing authentic data.

AAE43S Literature in the Language Classroom

This course introduces students to varied approaches to infusing literary texts in the English Language classroom. The reality of an increasingly interconnected world coupled with the rise of English as a global language challenges educators to consider the role of English as both a means of communication and a channel for reaching understanding with others of diverse cultures and communities. Through this course, you will be introduced to the nature of literary language, how it differs from non-literary language, and how the use of literary texts can complement non-fiction and other text types in the language classroom. You will also be equipped to apply various methods of literary criticism to critically appreciate both literary and non-literary texts, and to consider its various applications in the English language classroom.

AAE43T Language, the Learner, and the Curriculum

This course examines the crucial role of language in an individual's cognitive development and progress in learning in multilingual societies. At times adopting broad perspectives from language policy and curriculum design, and at times focusing on individual needs and progress, the course explores teaching, learning, and transfer of learning across the curriculum in primary and secondary schools. The language of school is analysed to understand how discipline-specific texts, genres, and ways of using language and literacy in school subjects might influence learning and knowledge building. The curriculum is defined broadly to include individual experiences of learning wherever they may occur, in schools, homes, tuition classes, and cinemas, for example. The respective and

interrelated roles of schools, teachers, families, and young people themselves are considered in the social and individual drive for education.

AAE43U Language Assessment and Evaluation

This course introduces contemporary theories, principles and practices related to language assessment and evaluation, highlighting current debates and trends. Pertinent aspects and issues related to language assessment and evaluation will also be examined. The course will examine assessment types and purposes as well as forms of evaluation used in educational contexts. It will specifically explore methods used in assessing language skills and knowledge and consider how technology may be applied in the assessment and evaluation of language learning. You will develop a deeper understanding of the crucial significance of assessment and evaluation and how these can be used to inform practice.

AAE43V Topics in Systemic Functional Grammar

This course explores the implications of Michael Halliday's systemic functional grammar (SFG) for research and practice in discourse studies, language development and language teaching. After a review of the key concepts such as system networks and the interpersonal, experiential, textual, and logical organization of texts, you will discuss key SFG-informed research studies on discourse, language development and functional language instruction and explore how these studies can provide useful implications for your own teaching and research.

ACADEMIC DISCIPLINE: ENGLISH LITERATURE

Table 1: AD Major Structure for Bachelor of Arts in English Literature and Education (Primary / Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAR10A	Exploring British Literature	Core	3	-
	AAR10B	Introduction to Literature	Core	3	-
	AAR10D	Reading Strategies	Core	3	-
	AAR10E[#]	Singapore and the Region in Literature	Core	3	-
2	**Select any 6 electives**				
	AAR23A	American Literary Tradition	Pres	3	-
	AAR23B	Victorian Poetry and Prose	Pres	3	-
	AAR23C	Film Studies	Pres	3	-
	AAR23D	Adolescent Literature	Pres	3	-
	AAR23E	Shakespeare and Early Modern Drama	Pres	3	-
	AAR23G	The Restoration to Blake	Pres	3	-
	AAR23H	Literature, Education and Culture	Pres	3	-
	AAR23J	Modernism and Postmodernism	Pres	3	-
	AAR23K	Literatures of Southeast Asia	Pres	3	-
3	AAR30A	Research Methods in the Study of Literature in English	Core	3	-
	Select any 2 electives				
	AAR43A	World Literature	Pres	3	-
	AAR43B	Approaches to Cultural Studies	Pres	3	-
	AAR43D	The English Novel: Jane Austen to the 19th Century	Pres	3	-
	AAR43E	20th Century Drama	Pres	3	-
	AAR43G	20th Century Poetry	Pres	3	-
	AAR43H	Contemporary British Literature	Pres	3	-
	AAR43J	Contemporary American Literature	Pres	3	-
	AAR43K	Understanding Critical Theory	Pres	3	-
	AAR43L	Post-colonial Theory and Literature	Pres	3	-
	AAR43M	Literature and Feminism	Pres	3	-
	AAR43N	Special Topics in Literature	Pres	3	-

[#] Applicable for student teachers from July 2024 intake onwards. For student teachers from earlier intakes, the equivalent course is AAR10C Singapore and the Region in Literature.

Cont'd

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
4	**Select any 3 electives**				
	AAR43A	World Literature	Pres	3	-
	AAR43B	Approaches to Cultural Studies	Pres	3	-
	AAR43D	The English Novel: Jane Austen to the 19th Century	Pres	3	-
	AAR43E	20th Century Drama	Pres	3	-
	AAR43G	20th Century Poetry	Pres	3	-
	AAR43H	Contemporary British Literature	Pres	3	-
	AAR43J	Contemporary American Literature	Pres	3	-
	AAR43K	Understanding Critical Theory	Pres	3	-
	AAR43L	Post-colonial Theory and Literature	Pres	3	-
	AAR43M	Literature and Feminism	Pres	3	-
	AAR43N	Special Topics in Literature	Pres	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAR23K is cross listed with AAR08A, offered as a Broadening & Deepening Elective (BDE).

AAR10A Exploring British Literature

This course offers an accessible and stimulating introduction to British literature 1400-2000 through a range of rich, exciting canonical and non-canonical texts. The course approach will be representative and chronological while conveying a grounded sense of the breadth and variety (as well as clear continuities) present in British writing when analysing its form, content, and context. The course will go on to explore questions of canon, tradition, and innovation within that tradition. It will focus on work by British women writers, while also exploring British literary responses to questions of colonialism and post-colonialism. It is hoped that by the end of this course participants will have acquired a freshly dynamic, nuanced and critical sense of what is meant by 'British Literature' in the second decade of the 21st Century.

AAR10B Introduction to Literature

This course will introduce you to traditional literary genres – poetry, prose, and drama. The focus is to

equip you with the knowledge and skills to read literary texts critically, aesthetically, and ethically. This approach will help prepare you to establish a firm foundation in the various types of narrative structures that you are likely to teach in the Literature classroom. The course will cover some of the key forms and literary techniques writers working in these genres employ. You will consider the interplay of aesthetic techniques and ethical concerns along with key hermeneutical strategies and theories.

AAR10D Reading Strategies

You will be given a selected number of texts and taught how to subject them to multiple readings, using a variety of approaches. You will start by mapping the semiotics of a text and understanding how it works as a system of signs before learning how to read gender biases and assumptions in its use of figurative language and narrative perspective. You may also learn how to disentangle the text's ideologies, its class and other affiliations, and read critically into its gaps and absences. You will also be introduced to some basic psychoanalytical strategies of reading and learn how to relate a text's discourse to the wider world of intellectual and cultural practices outside it. By the end of the course, you will be able to relate to literature as social text and view reading as social practice, and be well prepared to proceed to the second year of your education as teachers of Literature.

AAR10E Singapore and the Region in Literature

In this course, you will explore the literature of Singapore in English in the 20th century up to the present moment. You will explore the cultural and historical contexts of literature produced in colonial as well as post-independence Singapore, paying close

attention to the way literary texts of different genres in Singapore are related to larger ideas of decolonization, the politics of nation-building and canon-building and the place of the writer in Singapore society. You will also get to explore other important themes related to migrant identity, gender roles, race, sexuality, class and wealth disparity, international impact upon the local, the residual effects of colonialism, postcolonial pragmatism, aggressive capitalism, and the constructs of modernity as engaged with in literature. Singaporean writers' widening global lenses looking beyond the borders of the nation in their work will also be considered. A few translated texts maybe used. If you are a trainee teacher of literature in English, or someone with a passion for Singapore's own literature, you should take this course. The Singapore Literature course will inform and enhance your skills as a Singaporean teacher of literature, preparing you with valuable knowledge, critical skills and understanding for subsequent literature modules.

AAR23A American Literary Tradition

This course examines the definition of the term "American", what ideas and ideals are associated with its appropriation as a descriptive for the country, the United States, and how these ideas and ideals have been enunciated in American literature through the end of the nineteenth century. The readings will include selections from some of the following writers: Winthrop, Mather, Wheatley, Franklin, Cooper, Poe, Hawthorne, Melville, Ernerson, Fuller, Thoreau, Dickinson, Whitman and Twain.

AAR23B Victorian Poetry and Prose

This course looks at a selection of poetry and prose and considers it in relation to such major concerns and cultural pre-occupations of the Victorian period as the woman question, colonialism, class struggle, industrialisation, social ills, the changing landscape, and the division between private and public spheres. Questions of poetic prose form will be integral to the course. Poetic works to be studied may include those of Robert Browning, Elizabeth Barrett Browning, Christina Rosetti, Alfred Tennyson, Matthew Arnold, and Thomas Hardy. Prose writing by Thomas Carlyle, Thomas Macaulay, John Stuart Mill, John Ruskin and William Morris will also be considered.

AAR23C Film Studies

This course aims to provide an introduction to film appreciation and analysis. The focus of the course is on film as a construct of art and narrative, paying particular attention to aspects of film form, aesthetics and style. The course is divided into three parts. Part One introduces the four elements of film namely mise-en-scene, cinematography, editing and sound that provide the basic vocabulary of film studies. Part Two studies filmic texts as visual forms of story-telling. Part Three explores the issues of representation and spectatorship.

AAR23D Adolescent Literature

This course will explore adolescent literature through a range of genres, themes, and modes. Through different genre types, the texts explore issues that include the quest for identity, the movement between innocence and experience, the conflict between the unique individual and the peer pressure of youth culture, the sense of alienation and the formulation of

social roles like gender, ethnicity, and nationality. The course also embraces other text forms like graphic novels and film as expressions of adolescent literature. This course will encourage student teachers to consider the ideological implications of adolescent texts in terms of the construction of the developing identity of the child.

AAR23E Shakespeare and Early Modern Drama

The course focuses on the breadth of both Shakespeare's and his contemporaries' writing, covering representative plays and some poetry. Shakespeare and his contemporaries will be studied in the context of Elizabethan-Jacobean history and culture. Topics might include performance, identity, personal and political power, the effects of economic expansion and/or the roots of empire.

AAR23G The Restoration to Blake

This course will help student teachers to acquire a sense of the historical period and cultural context in which key literary texts of the 'long' eighteenth century (1650-1850) were created. In addition to the close study of prose fiction, poetry, drama and other kinds of texts in terms of their ideas, concerns, form, and methods of representation, we will consider what makes these texts representative of the historical moment as well as the societies in which they were written.

AAR23H Literature, Education and Culture

This course examines the history of English Literature as a discipline including its colonial roots and the making of a canon. It also explores what the relationship might be between contemporary culture and literature education in the secondary school.

Central to the challenge of literature education is the ongoing rapid growth of the mass media, youth-targeted consumption culture and the change in gender expectations of men and women, along with the more 'traditional' problems of youth gangs and how literature in English should be taught in a multi-ethnic/multi-lingual context. The social category 'youth' itself is affected by such cultural changes. Given these challenges, the roles of cultural literacy and complex written texts remain important as they are linked with the educational potential of developing creativity, strong identity and expanded formal and informal learning capacities. However, for literature education to be effective, teachers cannot ignore both the challenges and opportunities offered by contemporary culture. This course investigates the implications of contemporary culture for education, and the potential uses of youth culture as foci for the teaching of literature and the development of a more general cultural literacy.

AAR23J Modernism and Postmodernism

This course looks at the major aesthetic and cultural shifts occasioned by the complexities of the modern period, and how these found expression in some of the most challenging and innovative literary texts written during the early twentieth century. You will analyse literary texts which break the mould of "high realism" during the Victorian period and understand how modernist writers employed formal experimentation to explore new facets of human psychology and the boundaries of literary representation. We will continue analysing how the insight gained by writers inspired by modernist texts is translated into a newer literary movement characterised as postmodernist, underlined by very different political and moral attitudes that reflect larger intellectual changes in the

second half of the twentieth century. This course will equip you with an in-depth knowledge about modern and contemporary literature and prepare you for higher-level Literature courses.

AAR23K Literatures of Southeast Asia

This course aims to examine selected literary works from Southeast Asian countries, from the point of view of their literary techniques and themes, as well as within the contexts of their literary traditions and geopolitical, social and cultural negotiations. In order to develop a collaborative and comparative frame of interpretation and understanding, common themes that will be explored across the literatures from various countries include colonization and independence, nationalism, the continuing influence of traditional and ethnic cultures, and the evolution of literary style and genre. Careful attention will be paid to considering the meanings and possible impact of each of these works within their own society as well as to elucidating how each work can be seen to manifest culturally specific values, ideologies and philosophies. In order to achieve this, selected theoretical, cultural and multimedia texts will be introduced alongside the core literary texts.

AAR30A Research Methods in the Study of Literature in English

This course examines the various research methods employed in the study of Literature in English. It aims to provide the basic knowledge and skills needed for student teachers to identify and define a significant issue in an area of literary-cultural study and to decide on the appropriate theoretical framework and critical approach to investigate it. Student teachers will be familiarized with different types of research design,

and bibliographic research, along with their strengths and limitations. They will closely examine secondary critical material, learn about why literature scholars write the way they do and what makes their writing persuasive and effective. The course aims to help student teachers develop good research and writing habits.

AAR43A World Literature

The course examines how the concept of world literature emerged and how it has consistently undergone a broadening process post-2000. What does it mean to teach world literature today in an age of high-speed global interconnections, transborder crossings and hybrid cultural identities? In this course student teachers will engage with theoretical readings which contextualise the world-system in terms of economics, history, geography and culture. Student teachers will engage with a range of classic and contemporary texts from Africa, Asia, Latin America, the Middle East and the West. Topics for discussion include the relation of world literature as a field to nation-centric approaches to teaching literature, examinations of cross-cultural borrowings and cross-genre mixings in texts, the evolution of the novel form in diasporic and transborder contexts, and the stylistic devices that foreground such concerns. Student teachers will also explore how world literature provides important ways of exploring issues of historical memory, diasporic communities and identities, transborder mobility, the global city and ecological impact.

AAR43B Approaches to Cultural Studies

This course introduces the study of culture beyond the literary text. It considers the development of British

cultural studies and the development of the idea that 'culture is common'. The range of issues covered may include: the 'usefulness' of high culture in an industrial society, resistance against hegemonic notions of culture and society, the development of the concerns of gender, race and class in literary study, the concerns of mass culture in consumption-oriented societies, the emergence of youth culture, counter cultures and other sub-cultures. This course will also consider the question of the relevance of cultural studies in contemporary Asian contexts. Major figures focused on may include Raymond Williams, Stuart Hall, Paul Gilroy, Walter Benjamin and Theodor Adorno.

AAR43D The English Novel: Jane Austen to the 19th Century

This course looks at the nineteenth-century English novel and the contribution to the form's development by major writers like Jane Austen, the Brontes, Charles Dickens, Wilkie Collins, George Eliot, Elizabeth Gaskell, William Thackeray, and Thomas Hardy. Questions of form, point of view and the conventions of realism will be considered. Other issues to be examined include the trope of the fallen woman, sensation fiction, the place of the writer in Victorian society, serial publication, and the material conditions of production.

AAR43E 20th Century Drama

This course focuses on the seminal figures of the modern dramatic movement in UK, Europe, and the USA. It will examine the ways in which these playwrights rejected conventional theatrical forms as well as concerns of subjectivity, gender, and social and cultural identities in response to major shifts in the

intellectual life and the socio-political landscape leading to and during the 20th century.

AAR43G 20th Century Poetry

This course offers an accessible and stimulating introduction to twentieth-century Anglophone poetry through a range of rich canonical and non-canonical texts. The course approach will be representative and chronological while conveying a grounded sense of the breadth and variety (as well as clear continuities) present in 20th century poetry when analysing its form, content, and context. An emphasis will be placed on close reading, but prosody and context will also be emphasized. The course will go on to explore questions of canon, tradition, and innovation within this poetic tradition. It will include a focus on work by female poets, while also exploring poetic responses to questions of colonialism and post-colonialism. It is hoped that by the end of this course participants will have acquired a freshly dynamic, nuanced, and critical sense of what is meant by twentieth-century poetry.

AAR43H Contemporary British Literature

This course will offer a grounding in some of the fundamental attitudes, artistic movements, and socio-political developments in contemporary British society. It will survey a range of contemporary fiction and poetry from the British Isles. Beginning from the modernist period, the course will include a close examination of works that reflect major historical periods in 20th and 21st century Britain, including the post-war period, the dissolution of empire, the Cold War, the rise of multicultural Britain and associated tensions in the age of the global economy. Key literary developments include late modernist writing, social realism, genre writing (e.g. dystopian writing, the spy

novel or fantasy), immigrant writing, and the writing of the Commonwealth.

AAR43J Contemporary American Literature

This course examines texts from the 20th and 21st centuries to answer questions raised about American identity and American Literature. Texts will include prose fiction, poetry, drama, non-fiction, and critical/historical texts supporting the study of American cultural trends.

AAR43K Understanding Critical Theory

This course surveys the field of literary theory and examines the key theories of significant schools of thought 'about' literary aesthetics, reception and production. Student teachers will be exposed to a range of critical models including Marxist literary criticism, psychoanalytic criticism, poststructuralism, postmodernism, and hermeneutics. Student teachers will gain an in-depth understanding of philosophical debates surrounding literature as both a linguistic construct and an 'object' produced by wider cultural paradigms, and critically discuss ideas about the 'value' and 'place' of literature in relation to ideology and sociological practice, including that of the classroom.

AAR43L Post-colonial Theory and Literature

Selected readings of theory and literature will introduce student teachers to salient topics concerning post-colonial culture, such as the paradoxes of imagining post-colonial identity in the former master's language as well as the identity problems that stem from contemporary global movements of peoples. Student teachers will also study the ways in which selected literary texts from the Indian subcontinent,

Africa, and the Caribbean, as well as the Asian diaspora, among others, dismantle colonial fictions of the racial 'Other' and imagine new national, transnational, and ethnic identities for their communities. The course will prepare teacher-trainees to tackle in the classroom, important cultural and social concerns raised today within the new context of globalisation and transnational identities.

AAR43M Literature and Feminism

This course examines the history of feminism while also focusing more specifically on the development of feminist literary theory. You will read a wide range of key historical and theoretical texts to do with western feminism, postcolonial and Third World feminism as well as queer studies. You will also examine a variety of primary texts (poetry, short stories, novels, films) and analyse them using key concepts and insights gleaned from feminist theories.

AAR43N Special Topics in Literature

This course will focus on issues, key texts or significant writers that have played an important role in the study of literature. Because of its specialized nature, the course will give student teachers a chance to explore a topic in greater depth and detail. Topics vary with the instructor and the interests of student teachers.

ACADEMIC DISCIPLINE: FOOD & CONSUMER SCIENCES

Table 1: AD Major Structure for Bachelor of Science in Food & Consumer Sciences and Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAQ10A	Principles of Nutrition	Core	3	-
	AAQ10B	Resource Management for Individuals and Families	Core	3	-
	AAQ10C	Textiles Study	Core	3	-
	AAQ10D	Food and Society	Core	3	-
2	AAQ20A	Textile Studies II	Core	3	-
	AAQ20B	Food Management and Preparation	Core	3	-
	AAQ20C	Personal Finance	Core	3	-
	AAQ20D	Creative Textiles	Core	3	-
	AAQ20E	Applied Nutrition	Core	3	AAQ10A
	AAQ20G	Consumer Issues	Core	3	-
3	AAQ30A	Entrepreneurship in Family and Consumer Sciences	Core	3	-
	AAQ30B	Food Science and Principles	Core	3	-
	AAQ30C	Consumer Research Methods	Core	3	-
4	AAQ40A	Product Development	Core	3	AAQ10, AAQ20 and AAQ30 Series
	AAQ40B	Individual Project with Industrial Attachment	Core	3	AAQ10, AAQ20 and AAQ30 Series
	AAQ40D	Clothing and the Consumer	Core	3	AAQ10C, AAQ20A, AAQ20D

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAQ10A Principles of Nutrition

The course covers the fundamentals of Nutrition and Food, which encompass: the study of nutrients, energy balance, nutrition/diet tools such as My Healthy Plate, Recommended Daily Allowances (RDA) and Food Composition Table.

Extended areas of discussion/ exploration include:

- Factors related to food labelling and choices,
- Meeting an individual's nutritional requirement
- Decision making regarding current nutrition-related issues
- Comparing the use of different RDA from different countries

AAQ10B Resource Management for Individuals and Families

This course is designed as an introduction to the understanding the significance of values, goals, attitudes and planning strategies in the management of human, economic and environmental resources as they relate to increasing satisfaction in the use of time, money, material, energy and skills, and the enhancement of well-being of individuals and the family.

AAQ10C Textiles Study

This course is intended to give the family and consumer science student teacher an understanding of textile fundamentals as they relate to the consumer and consumer products. Student teachers will acquire a working knowledge of natural and man-made fibers, yarn formation, fabric construction, fabrication colouration and finishing.

AAQ10D Food and Society

This course focuses on the patterns, customs, and management of foods in the context of diverse cultural populations. The influences of history and origins, culture and religions on foods, the impact of geographical and economic factors on food patterns, eating habits, preparation of traditional foods from around the world, and the impact of these on the Singapore food scene and marketplace. Student

teachers will have a more holistic understanding of the development of food habits and commodities and, in turn, assist them in the teaching of Food and Consumer Education/Food and Nutrition.

AAQ20A Textile Studies II

This course aims to develop skills and techniques used in the construction of apparel and household products. The application of knowledge and selection of textiles are emphasized through the use of new technology and digital design. It will provide a sound foundation for garment manufacturing techniques as it is designed to develop skills in student teachers related to body measurements using appropriate tools, sewing by non-automatic machine, application of appropriate constructional stitches, and preparation of fabric for clothing construction.

AAQ20B Food Management and Preparation

This course is designed as an introduction to the principles and techniques of food management and preparation. A strong foundation in effectively planning, selecting, preparing, storing, and presenting food in a range of ways appropriate to varied circumstances are explored. Emphasis is placed on meal management using time and energy-saving methods.

AAQ20C Personal Finance

This course explores the key components of personal finance that are critical for building a strong financial foundation. Student teachers will learn the strategies of developing S.M.A.R.T financial goals, managing personal checking accounts, and credit. Topics include bankruptcy, investment strategies including savings accounts, mutual funds, and the stock market.

AAQ20D Creative Textiles

This course is designed to study the aesthetic principles involved in the selection of colour, texture, line and shape and their application in the design and production of clothing and other textile products, and developing creativity and production of objects through the use of different materials and surface decorative techniques, including hand and machine embroidery.

AAQ20E Applied Nutrition

This course covers the study of nutrition relating to physiological adaptations and nutritional needs through the lifespan, included are the translation of nutrients in food terms, menu adaptations for specific groups and effects of various food preparations on the nutritive value of foods. Factors relating to food choice/selection to meet nutritional requirements and decision making about current nutrition-related issues will be discussed.

AAQ20G Consumer Issues

This course focuses on the basic economic principles as they apply to the consumer marketplace. Student teachers will learn about consumer purchase decisions with a specific focus on consumer issues in the areas of food, product safety, housing, and family finance. It includes a study of consumer problems such as consumer rights, responsibilities, and remedies in the context of purchase decisions.

AAQ30A Entrepreneurship in Family and Consumer Sciences

Entrepreneurship and new venture creation is a choice to live out one’s dreams that can make a real

difference not only in the life of the entrepreneur her/himself, but also in the lives of others; it can lead to new and improved products/services and create new jobs and added value for owners, investors and even the society. Starting up a venture usually requires more money than you have in the bank, more energy than you thought you had, and more skills & know-how than you thought you needed.

This course will introduce student teachers to the fundamental concepts of entrepreneurship. Business planning is essential to any entrepreneurial venture, whether it is to start a new business or expand an existing one. This, therefore, forms the main project for the course. However, the focus of this course is not on the business plan itself but on the (behavioural) processes and tools leading to the development of the plan. The internet and role of e-commerce in entrepreneurship & business is recognised, introduced and discussed. Similarly, the importance of technology as a source of entrepreneurial ventures will be introduced. Specific attention will be given to Family and Consumer Sciences (FCS) related industries.

AAQ30B Food Science and Principles

This course illustrates the principles of food science, emphasizing the functional, physical and chemical properties of food constituents and their behaviour in production, processing, preparation, selection, evaluation, storage and usage of food. This investigative approach to the underlying principles provides content knowledge and develops process skills and experiments to have a better understanding of the science behind food commodities, preparation and processing.

AAQ30C Consumer Research Methods

This course focuses on the analysis of consumption patterns and behaviour of consumers in the marketplace. Data collection methods are explored in the context of family and individual purchase decisions. A range of quantitative methods with emphasis on the use of simple regression analysis and correlation to explain consumer behaviour.

AAQ40A Product Development

The course aims to provide undergraduate to with the opportunity to apply the specialized knowledge gained from the cognate areas of Family and Consumer Sciences courses to the process of product development. Emphasis of the topics covered will include product conceptualization to marketing as well as the mechanics of working through challenges associated with launch new products in the marketplace.

AAQ40B Individual Project with Industrial Attachment

This course aims at providing student teachers with the opportunity to review the family and consumer sciences philosophy and how it has been anchored in businesses. Practice will be followed by a consideration of the ways in which the individual consumer and the family as a consuming unit are the driving forces behind a variety of businesses/industries relevant to the content areas of family and consumer sciences.

AAQ40D Clothing and the Consumer

This course aims to introduce clothing issues as they relate to the consumer. The function of clothing will be explored by investigating the fibre content and fabric

structure in relation to construction techniques. Principles of wardrobe planning are introduced to enhance consumer selection. Market trend surveys will be used to identify clothing issues and selection.

ACADEMIC DISCIPLINE: GEOGRAPHY

Table 1: AD Major Structure for Bachelor of Arts in Geography and Education (Primary / Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAG10A	Elements of Physical Geography	Core	3	-
	AAG10B	Elements of Human Geography	Core	3	-
	AAG10C	Techniques in Geography	Core	3	-
	AAG10E	Singapore in the Globalized World	Core	3	-
2	**Select 6 electives; at least one each from Physical Geography (PG), Human Geography (HG) and Geographical Techniques (GT)**				
	AAG23A	Introduction to Statistics in Geography (GT)	Pres	3	-
	AAG23B	Remote Sensing (GT)	Pres	3	-
	AAG23E	Climate and Climate Change (PG)	Pres	3	-
	AAG23G	Coastal and Ocean Systems (PG)	Pres	3	-
	AAG23H	Introduction to Geographical Information Systems (GT)	Pres	3	-
	AAG23J	Economic Geography and Globalization (HG)	Pres	3	-
	AAG23Q	Understanding Tourism (HG)	Pres	3	-
	AAG23R	Health Geography (HG)	Pres	3	-
	AAG23S	Tropical Geomorphology (PG)	Pres	3	-
	AAG23T	Biogeography and Soils (PG)	Pres	3	-
	AAG23U	Urban Geography (HG)	Pres	3	-
	AAG23V	Cultural Geographies (HG)	Pres	3	-
3	**Select any 3 electives**				
	AAG33C	Ecosystem Dynamics	Pres	3	-
	AAG33D	Resource and Environmental Management	Pres	3	-
	AAG33E	Feeding the World	Pres	3	-
	AAG33H	Applied Geographical Information Systems	Pres	3	AAG23H
	AAG33J	Population Geography	Pres	3	-
	AAG33K	Political Geography	Pres	3	-
	AAG33L	Cities of the World	Pres	3	-
	AAG33M	Hydrology and Watershed Management	Pres	3	-
	AAG33N	Independent Study on Geography Topics	Pres	3	-
4	AAG40A	Geographic Thought	Core	3	AAG10A AAG10B AAG10C
	AAG40B	Geographies of Sustainability	Core	3	-
	AAG40D	Geographical Methods and Fieldwork	Core	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAG10E, AAG23B, AAG23H, AAG23J, AAG23Q and AAG33L are cross listed with AAG18C, AAG28D, AAG28E, AAG28G, AAG28C and AAG38A respectively, offered as Broadening & Deepening Electives (BDEs).

AAG10A Elements of Physical Geography

Global occurrences of natural phenomena and the physical environment associated with such events are the core topics in this module. Understanding of Earth as a multi-dimensional system is initiated and the concepts underlying the natural environments including the atmospheric system; tectonic and geomorphologic system (lithosphere); and hydrologic system are discussed. The various physical processes operating within the physical systems are emphasized.

AAG10B Elements of Human Geography

This course aims to introduce students to key fundamental concepts of human geography concerning factors leading to the shaping of the world's socio-cultural, spatial, economic, political and development aspects. The major topics during the course cover human, environment and landscape change, development patterns across the globe, economic development, and its impact on society, changing landscape of industries and services sector, regional variations of development and disparities, as well as dynamics of population growth and migration patterns, origins and evolution and systems of urban settlements. Also considered are the political ordering of space, nature, and role of modern states, and the impacts of globalization especially in the Asian context.

AAG10C Techniques in Geography

This course focuses on the collection, analysis, interpretation and presentation of Geography methods. Students will be introduced to both human (quantitative and qualitative methods) and physical geographical investigation through lectures, tutorials and fieldwork. Hands-on experience with data collection, data entry and analysis and presentation techniques will also be introduced.

AAG10E Singapore in the Globalized World

This course integrates geographical skills and different study strands – human, environmental and technical – in the study of Singapore in the Asian region and the rest of the globalized world. The global positioning of Singapore and the contemporary challenges to development that it faces in a highly competitive and fast changing global environment will be the framework for the study of the issues and concerns that it currently faces. In particular, it interrogates the changing landscapes of Singapore in light of the city-state's on-going global city aspirations.

AAG23A Introduction to Statistics in Geography

This course introduces you to statistical and quantitative techniques commonly applied in geographical data analysis. You will progress from appropriate graphing methods to include basic summary statistics, probability theory, parametric and non-parametric hypothesis testing, correlation and regression. You will also examine considerations in developing appropriate surveys and analysing Likert-like data responses also will be discussed. Statistical theory is reinforced through application of commonly used computer software to solve real-world problems.

AAG23B Remote Sensing

This course exposes student teachers to digital image processing using remote sensing technologies. Through problem-based learning, student teachers are required to adopt relevant techniques and knowledge to address specific geographical or environmental issues. More importantly, student teachers will need to showcase remote sensing integration into their future teaching.

AAG23E Climate and Climate Change

This course will examine atmospheric processes that are involved in anomalous and adverse weather conditions, climate zones of the tropics and trans-boundary atmospheric issues and global climate change. The focus of the course will include discussion on impacts and management responses to climate changes.

AAG23G Coastal and Ocean Systems

This course takes an integrated approach in introducing students to fundamental concepts of ocean and coastal systems. Fluid dynamics in the ocean and coastal zone are examined and linked to landforms and landforming processes in wave-dominated, tidally-dominated, and river-dominated coastal systems. Human uses, ecosystem, and economic values are described in the context of these different coastal environments, with special emphasis on mangrove and coral reef ecosystems. Hazards related to human use of coastal systems, including tsunamis, climate change and sea level rise, pollution, and erosion are discussed, together with management options to reduce hazards.

AAG23H Introduction to Geographical Information Systems

This course will introduce students to how to think spatially by familiarizing them with the basic concepts and tools of Geographic Information Systems (GIS). It enables students to display, analyse and manipulate spatially-reference information, and to better understand human-environment interactions.

AAG23J Economic Geography and Globalization

The course aims to introduce students to changing landscape of economic geography in the world with focus on basic theoretical understanding. The course will help students understand the ways geographers have conceptualised various economic issues around the world and will help students in understanding spatial significance of economic geography. Students will also learn about the concept and impact of globalization across Global North and Global South.

AAG23Q Understanding Tourism

Tourism is arguably the world's largest industry and has been considered as an economic development option by many developing countries. However, it is questionable whether income generated through tourism can bring marginalized communities increased economic independence and life standards. This course aims to use tourism as a lens to explore key issues of globalization and socio-economic development and how tourism, a global phenomenon, influences local people's lives. Course objectives are to 1) introduce the concepts relevant to tourism and globalization; 2) apply theoretical frameworks to the analysis of contemporary issues of the globalization of tourism, and the complex relationships that link local, regional, national and international processes and patterns of tourism development; 3) explore the

dynamic relationship between the forces of globalization, transnational tourism corporations, and the state and civil society in the context of tourism; and 4) assess critically the economic, political and social ramifications of the systemic sources of power and inequality which are reflected in and sustained by international tourism.

AAG23R Health Geography

The course will introduce you to key concepts of health geography including spatial diffusion of diseases, the changing concepts of health, the social and physical determinants of health and healthcare services, chronic and mental health, health inequalities, health care provision and planning. Although the overall emphasis will be placed on the Singaporean context, the course will also explain and illustrate through case studies and examples from other nations in the regions and around the world (Major Western Nations) to illustrate geographical variation in terms of health issues across space.

AAG23S Tropical Geomorphology

This course is on the study of the physical environment of the humid tropics. The geomorphological and hydrological processes operating within the region will form the main platform of the course. Local and regional physical attributes and examples will be analysed around the key concepts and the interrelationships between operating processes and resulting landforms. Elements of fluvial sedimentation and applications of urban geomorphology under humid tropical environments are included. Techniques applied to geomorphological research and analysis of field data are integral parts of the coursework.

AAG23T Biogeography and Soils

This course provides an introduction to soils and plant geography. The course deals with the ecosystem concept and looks at the inter-relationships that exist between the inorganic and organic worlds. Essentials of vegetation ecology such as plant communities and factors that affect the spatial distribution of these communities are covered after the initial groundwork on soils and their properties is provided. Special emphasis is given to local ecosystems such as tropical rainforests and mangrove. Fieldwork and supporting laboratory work are essential components of the course.

AAG23U Urban Geography

Cities with their shiny lights, tall and spectacular buildings, wide roads and expressways have spurred imaginations and influenced human society for several decades and centuries. Cities are the places of economy, innovations, creativity, possibility, dreams & aspirations as well as peril and poverty, slums and millionaires. Urban Geographers are interested in studying and understanding the very many ways of life in cities. This course introduces you to the fundamental concepts and theories of contemporary urban geography. The broader topics that will be covered include the development of cities, urban changes and processes, urban built form and environment, urban inequality, urban economy, urban futures, everyday urban life, sustainability, and urban environments.

AAG23V Cultural Geographies

This course interrogates the cultural, social and urban aspects of our everyday life through a Cultural Geography perspective. More specifically, it will utilise

the concept of 'landscape' as lens through which to explore contemporary debates on people and their lived urban environment. You will explore how cultures are geographically expressed and how geography is a basic element in the making of culture. Furthermore, attention will be paid to the power relations amongst various stakeholders in the creation of urban spaces and social systems. The course thus plots a thematic learning journey, which spans from urban injustice, struggles over public spaces, and identity politics to culture and heritage as tourism resources. As such, you will be familiarised with the basics of Cultural Geography, and learn to make sense of the mutually constitutive relationship between people and their environments.

AAG33C Ecosystem Dynamics

This course examines ecosystem processes, including the role that biogeochemical cycles play in energy and matter transfer through trophic levels, limiting factors associated with different ecosystems, and principles of landscape ecology. Anthropogenic modifications of ecosystem processes are explored. An important focus of the course is hands-on analyses of biotic and abiotic factors used to characterize the ecosystem health at sites in Singapore.

AAG33D Resource and Environmental Management

This course identifies some major prevailing environmental problems, their origins, and how these problems are being dealt with at public policy and consumers' levels. Two fundamental aspects are approached, the physical environment and the human environment. For the physical and ecological resources, their consumption and the impacts are covered. Special focus is placed on the role and

significance of conservation of nature areas in Singapore's urban environments. Policies related to conservation and environmental control will be discussed. The human approach examines the impact of growth and consumption on the physical environment, and environmental ethics, attitudes towards pollution, wastes and their management. Environmental justice issues and the role of civil society in environmental management are examined. Strategic measures and policies to enhance environmental sustainability and better manage resources are discussed.

AAG33E Feeding the World

This course introduces you to the study of food geographies. Fundamental concepts concerning the production, consumption, supplies and distribution of food across the world and over different periods will be the primary focus of the course. Various approaches to studying food and society will be examined, highlighting how food can be a useful lens to study society. Debates on the myths and realities of food scarcity and food surplus and key factors contributing to regional differences - the state, producers and distributors will be discussed.

AAG33H Applied Geographical Information Systems

This course is designed to expose student teachers with the potential of using GIS in schools. Various case studies using GIS in delivering geography content knowledge as well as addressing community problems will be explored. In addition, the potential of using web-based GIS technology in spatial data delivery and visualization will also be demonstrated. Through this course student teachers will gain good understanding on learning with GIS as well as practical experience in

designing and delivering a geography lesson incorporating desktop or web-based GIS technology.

AAG33J Population Geography

This course introduces you to key issues in population geography. Population trends and patterns across scale (global, national and sub-national) and time will be explored. As population change can be viewed as a threat and/or an opportunity to a nation, the course will discuss the links between population, gender dimension, poverty, economic development, the environment, sustainability, public health provisioning, urbanization and government policies critically. Case studies of both Singaporean context and globally will be discussed throughout the course.

AAG33K Political Geography

Political Geography examines the different intersections between space, place and politics. This leads to a consideration of a range of issues and subjects that are relevant to the contemporary world, including terrorism, ethnic violence, human security and nationalism. This course will examine these and related topics, as well as situating discussions in the context of historical structures and relations of power, such as colonialism that have helped to map the contemporary power relations between states and different social groups.

AAG33L Cities of the World

Based on comprehensive theoretical understandings and case study based city-specific in-depth analysis, this course aims to introduce students to the practices, processes, and complexities in/of the urbanizing world and with specific focus on Asia. Through the lens of everyday urban world, you will understand urban

theories and concepts, various urban policies, travel as models & practices, technologies and their adoption into the urban world, urban water management and the making of liveable, sustainable & smart cities across the world. Particular emphasis will also be given on understanding Singapore's everyday urban life, planning practices and its importance as an urban model in Asia and beyond. Further, student fieldwork will help in understanding classroom concepts and appreciate everyday Asian urbanism.

AAG33M Hydrology and Watershed Management

This course explores the integration of physical and human systems to effectively manage a watershed. There is an emphasis on applied quantitative and qualitative assessment of water resources information and on the interactions between components of the hydrologic cycle and ecosystems to support effective watershed management and decision-making. Case studies drawn from both urban Singapore and other watersheds in Southeast Asia are used to underscore theoretical and applied concepts in eco-hydrology and watershed management. Fieldwork forms an essential component of this course.

AAG33N Independent Study on Geography Topics

This course is designed to enable you to explore an approved topic within the discipline of physical or human geography in relative depth. It is meant as a platform to cultivate independence in learning and research. You should approach an instructor to work out an agreed research topic, readings, and assessment for the course. Topics vary with the instructor's expertise and your interests.

AAG40A Geographic Thought

This course helps you deepen your understandings of geography through situating what you have learned so far in geography within the history of geographic thought. You will discuss why and how geography has evolved, with attention paid to its major thinkers, theories, approaches and concepts. The focus on the course will be on what makes geography a distinct and unique discipline, and its contributions to theorising and understanding important social, economic, political and environmental issues over time.

AAG40B Geographies of Sustainability

This course introduces you to key issues of sustainability, including shallow versus deep sustainability, ecosystem services and development of indicators to assess sustainability, environmental sustainability, and population dynamics. Concepts related to sustainability, including resiliency, community well-being, quality of life, happiness, green cities, and eco-city planning are also explored. Specific topics include green space and urban liveability, energy and water resources, landscape planning, climate change and health, and sustainability in tourism development. The multidisciplinary nature of sustainability studies is emphasized.

AAG40D Geographical Methods and Fieldwork

Together with AAG40C Academic Exercise: Geography, this course acts as part of a capstone to provide experience in formulating a research hypothesis and formally presenting the hypothesis, collecting data, and analysing data to support the hypothesis. Emphasis is on primary data collection

that will be done through a required international field experience.

ACADEMIC DISCIPLINE: HISTORY

Table 1: AD Major Structure for Bachelor of Arts in History and Education (Primary / Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAH10A	The Historian and His Craft	Core	3	-
	AAH10B	Biography and History	Core	3	-
	AAH10C	Singapore History: The Making of a Global City-State	Core	3	-
	AAH10D	International History: From World War One to the Present	Core	3	-
2	AAH20D	Historical Interpretations	Core	3	-
	AAH20E	Modern Southeast Asia	Core	3	-
	Select any 4 electives				
	AAH23D	Early Modern Asia	Pres	3	-
	AAH23E	Modern East Asia	Pres	3	-
	AAH23G	Modern Europe	Pres	3	-
	AAH23H	United States: The Emergence of a Superpower	Pres	3	-
	AAH23J	History and Film	Pres	3	-
	AAH23K	Dawn of Asian Civilisations	Pres	3	-
	AAH23M	Cold War Asia	Pres	3	-
	AAH23P	Undoing Empire	Pres	3	AAH10D
3	**Select any 3 electives**				
	AAH33A	'If it bleeds, it leads': War and Peace in the Media	Pres	3	-
	AAH33B	Aspects of Imperialism and Military History	Pres	3	-
	AAH33D	Maritime China	Pres	3	-
	AAH33E	Singapore History : Issues and Perspectives	Pres	3	-
	AAH33G	The Japanese Occupation in Southeast Asia	Pres	3	-
	AAH33H	Themes in Australian History	Pres	3	-
	AAH33J	The Nineteenth-Century World of Southeast Asia	Pres	3	-
	AAH33K	Rise of Modern India	Pres	3	-
	AAH33N	Heritage and Culture	Pres	3	-

Cont'd

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
4	AAH40B	Reading Sources: Evidence from the Past	Core	3	-
	Select any 2 electives				
	AAH43A	Tradition and Resistance in Twentieth-Century Southeast Asia	Pres	3	-
	AAH43B	Patriarchy and Gender: Women in China	Pres	3	-
	AAH43D	The History of Racial Thought	Pres	3	-
	AAH43G	The Vietnam War	Pres	3	-
	AAH43H	Seminars on Historical Thought and Practice	Pres	3	-
	AAH43J	History, Memory and Violence in Asia	Pres	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAH10A The Historian and His Craft

This course is an introduction to the seemingly bland question of what a historian is and what he (or she) does. The role of a historian in society is more than being the recorder or storyteller of myriad narratives but essentially one of 'influence'. The historian, by virtue of the subject, is thus not divorced from the complex realities of the past and the present. Through analysing the work of historians and key historical philosophical concepts, you will learn the processes of 'doing' history and develop critical skills necessary in nurturing and refining your craft as a historian.

AAH10B Biography and History

The aim of this course is to teach you how biography can be used to learn about history and historical methods. Biography is one of the most popular and enjoyable ways of reading history. Biographers employ a range of interesting methods to discover their subject. Psychoanalysis of the individual's actions and use of the memories of the subject and

those of others who knew him or her are covered. This course studies how life stories are written not only of the "great" figures of history but also of the "unknown" men and women who also "made history". Thus, the course aims to make you aware of the value of 'life stories' in historical research and writing.

AAH10C Singapore History: The Making of a Global City-State

This course is an introductory survey of the history of Singapore from the thirteenth and fourteenth centuries till the 1970s. This is a survey that will acquaint you with the critical stages in Singapore's past, first as the port-city of Temasek, and then successively as an entrepot port of the East India Company, a British colonial port city and naval base and an independent city-state. The major markers of Singapore history, and the variety of that history, with its experience of development and disaster, conflict and peace, multiculturalism and modernity, and wealth and poverty would be covered.

AAH10D International History: From World War One to the Present

This course provides a broad introduction and analysis of landmark global historical events and developments from World War One to the present. It will focus on acquiring content knowledge, deconstructing the relevant conceptual and thematic narratives and interrogating still evolving political, economic, military and social patterns that have impacted on the world since 1914. Analysis of selected events include the two world wars, the Cold War, the decolonization "wind of change" to the collapse of the Soviet Union and through to the current New World (Dis)order mired in the so-called "War on Terror". The disparate impact of

globalisation and environmental degradation on communities and nations will conclude this broad inspection.

AAH20D Historical Interpretations

Can history be objective? Who owns history? History is what we make of it or what we want it to be? Historical interpretations essentially beg many other such infuriating questions from the definitions, components and narratives to the 'selection bias' of the discipline. This course will be interrogating myriad questions of the theoretical and the practical but crucially it will attempt to explore the subject of history from how it affects the individual, society and nation in the past and into the future. Through selective national and international case studies, this course is a journey into the past or what we think we know of the past, the present and hopefully, the future.

AAH20E Modern Southeast Asia

This course aims to introduce you to the major themes of Southeast Asian history from the late 19th century to mid-late 20th century, including colonialism, nationalism, the Japanese occupation, independence movements, decolonization, and the Cold War. The course considers patterns across the region of Southeast Asia as whole, with particular attention paid to Malaya, Indonesia, Indochina/Vietnam, and Siam/Thailand. Through these contexts, you will address broad thematic questions: What was the impact of colonialism on local peoples and societies? How did colonialism provide intellectual foundations for nationalism? What did the Cold War mean to the peoples and societies of Southeast Asia? Finally, how can we understand the emergence of two faces of nationalism through this period: as a unifying and

liberating force and a means of exclusion and prejudice?

AAH23D Early Modern Asia

This course provides an introductory survey of three civilizations in the early modern period (1400 to 1820 CE). It explores the political, social-economic, and cultural-religious developments in East, Southeast and South Asia in the early modern period. A museum experience is embedded in a way where you will be expected to make observations of the displayed artefacts in connection with the themes studied in the course. You are expected to be able to appreciate and apply a diversity of evidence from the text and museum in analyses in your presentations or essays.

AAH23E Modern East Asia

What do people mean when they speak of “East Asia” today? Is East Asia defined by its geography or its common cultural roots or historical experiences? These are some questions that you will explore in this survey course that will study the histories of principally China and Japan from 1600 to the present. It takes a comparative approach towards the individual histories of these countries, examining similarities and differences in the experiences of empire, colonization and semi-colonization. At the same time, commonalities in the historical experiences are also emphasized. Discussions in the course will largely focus on the imperial order in China and Japan that was transformed by western encroachments, bringing about responses in the form of reform, nationalism and revolution. The different ways in which China and Japan responded to western encroachments will be examined to understand how both countries navigated

their tumultuous entry into the modern era and how certain contemporary issues in East Asia today are legacies of this historical period.

AAH23G Modern Europe

This survey course provides a broad overview of the European “long 19th century” which is arguably the period of most rapid change in European history. The course will begin with the French Revolution and the First French Republic and end with the Russian Revolution and the emergence of the Weimar Republic in Germany. Key themes that will emerge between these bookend events include nationalism, ideology, diplomacy, class, violence and the growth of the modern state and economy. In particular, the many ideas underpinning the modern state – such as political ideologies, citizenship – as well as the expansion and contraction of European borders both on the continent and beyond during waves of colonialism will be explored.

AAH23H United States: The Emergence of a Superpower

This course presents a political, social, cultural, and economic history of the United States (US) from the start of the 20th century. Key events from the Progressive era through to the present period will be examined in charting the rise of a global superpower. The intertwining strands of domestic and international events will be analysed ending with an overview of the US as an unprecedented hyperpower amidst political and economic “unwinding” (Packer 2013) and with that perceived “decline”. Critically, you will be challenged to interrogate the history of a country that had and has an indubitable impact on global history.

AAH23J History and Film

The aim of this course is to teach you how films can be used to learn about history and historical methods. History does not only include examining the written word. Other mediums, such as film, can be used in looking at the past. This course covers the use of film as a source for exploring the past, and how history has been represented in film. The history of cinema and television is also studied. The emphasis is on empowering you to interpret films in critical and analytical ways, as well as teaching you how films are created. Thus, the course aims to make you aware of the value of film as a primary and secondary source in historical research and writing.

AAH23K Dawn of Asian Civilisations

This course provides an introductory survey of three civilizations from the prehistoric times to 1400 CE. It explores the political, social-economic and cultural-religious developments in East, Southeast and South Asia in the ancient period. The ancient world commonly qualifies as an ‘unknown territory’ in our knowledge because of its remote timeline. Yet, this world, dubbed by contemporaries as the ‘Axial age’, was one of the most vibrant giving rise to many of the heritages we know of today. The scheduled sessions of presentation, museum experience and essay-writing provide ample opportunities for you to explore and appreciate the various aspects of the ancient world.

AAH23M Cold War Asia

This course explores Asian experiences of the Cold War through social and cultural approaches to history. Starting with the question of how local populations understood the nature of the Cold War, you will

examine case studies from China, Japan, Korea and Southeast Asia. Through these case studies, you will consider how Cold War ideologies were adapted and understood in Asia, how they related to nationalism and anti-colonialism, and the ways in which these ideologies were embraced and contested in daily life, cultural performance, sport, films, newspapers and propaganda. You will gain familiarity with recent developments in Cold War historiography, develop understanding of local agency in regional and global history, engage with different approaches to cultural, political and transnational history, and draw on a variety of historical sources including film, visual culture, and translated primary sources.

AAH23P Undoing Empire

This course aims to introduce you to the ways that "undoing empire" has been a major political, economic and cultural force in the postcolonial world during the second half of the twentieth century. After developing definitions of empire and mapping its geographies, we delve into themes of political, economic and cultural decolonization by mobilizing particular case studies (e.g. the Bandung Conference of 1955, the experiment of Tanzanian socialism in the late 1960s/early 1970s, and the restitution of art objects from Western museum collections to communities from whom they were taken). Each case study offers you an opportunity to engage with primary source materials, increasing your comfort with primary source analysis. By the end of the course, you will have engaged critically with the challenges and opportunities that "undoing empire" presented during the later 20th century and reflected critically on how these processes have shaped your own worlds.

AAH33A ‘If it bleeds, it leads’: War and Peace in the Media

The course will explore an increasingly significant component in our lives: the global media. The mechanisms and impact of selecting, presenting and analysing information and in this course, war and peace, on our lives go beyond the daily news and headlines. Control of and access to information suggests, more urgently than ever, that as willing (and sometimes unwilling) consumers of this selected ‘information’, our perceptions, decisions and lives are surreptitiously shaped by the media which can include a fascination with “reality” entertainment shows while remaining ignorant of the disturbing reality on the horrors of war, suggestions of “worthy’ and worthy lives” and fleeting nature of peace. Does the increasing infotainment nature of ‘news’ underlined past contention that in viewing or listening to the news, it is vital to consider the exercise as “done with smokes and mirrors” and led by the journalistic slogan, “if it bleeds, it leads”?

AAH33B Aspects of Imperialism and Military History

The course aims to explore the historiography of imperialism, nature of empire, case studies from the West and East as well as the military campaigns of imperialist states. Using the British imperialism as a case study, the gap between theories and reality in the various geographical regions will be examined. Delving further into the case studies, the military campaigns as well as the state management of violence in the empire will also be discussed. Finally, you are also encouraged to raise for discussion any issue of contemporary significance or linkage to heritage or postcolonial concern.

AAH33D Maritime China

Maritime China has long been viewed as peripheral to the history of Imperial China, traditionally perceived as a land power. The maritime frontier was further seen as passive and inert, evoking no special attention from the centre. This course addresses these misconceptions by examining the maritime tradition and history of China over the centuries from national and international perspectives, through an overview of crucial themes such as continuities and change in political, institutional, religious, cultural and social processes on the maritime frontier. It surveys the maritime history of China beginning in the twelfth century, with more in-depth coverage for the period 1500 to the present, where contemporary regional tensions over geo-political considerations find reference and origins in China's considerations and views of its maritime frontier.

AAH33E Singapore History: Issues and Perspectives

This seminar course is focused on the history of Singapore from pre-1819 to 1975 through a selection of issues that have both historical and contemporary relevance to Singapore's survival and growth as an entrepôt port, colony, newly independent nation, and a global city-state. Through the adoption of a thematic and issue-oriented approach, you will examine issues such as Singapore's place within the Southeast Asian region, governance, migration, nationalism, housing, healthcare, education, defence, economic management and so on, through multiple perspectives provided by primary and secondary source materials.

AAH33G The Japanese Occupation in Southeast Asia

The main aim of this course is to teach you the value of comparative history. The Japanese Occupation of Southeast Asia was undoubtedly a watershed in the history of the region. It undermined European colonial rule and was a catalyst for nationalism and anti-colonialist forces. This course takes a comparative perspective of the impact of the period on the various countries of Southeast Asia. It offers a historiographical study of the topic by examining various themes, such as collaboration versus resistance, the rise of new young nationalists versus the continuation of the old elites, and the war memory of the period in the decades after the end of the war. Thus, the course aims to make students aware of how looking at comparative histories can lead to a greater understanding of primary and secondary sources in historical research and writing.

AAH33H Themes in Australian History

The chief aim of this course is to teach you how thematic history can be used to learn about history and historical methods. There is a focus on the coverage of race relations, starting with those between the white settlers and the indigenous people of Australia. The course also looks at how Australia came to occupy the unique position of being a predominantly European culture in an Asian region. Australia's modern relations with Asia are looked at in the context of the central themes of Australian history. There are studies of other major themes, such as the history of crime and punishment, as well as gender relations, and indigenous history. Thus, the course aims to make you aware of how pursuing thematic history can lead to a

greater understanding of primary and secondary sources in historical research and writing.

AAH33J The Nineteenth-Century World of Southeast Asia

The course aims to explore several themes of interest, such as on empire building, diaspora as well as the subaltern world, in the history of archipelagic Southeast Asia in the 19th century. A field experience based on a walk on an 1860 map of Singapore is embedded to relive the environ of an arch-typical colonial urban settlement in the region. You are expected to be able to appreciate and apply a diversity of evidence from text and fieldtrip; as well as test his/her ideas in the presentation. Finally, you are also encouraged to raise in discussion any issue of contemporary significance or linkage to heritage concern.

AAH33K Rise of Modern India

The much-touted rise of India towards the end of 20th and beginning of 21st centuries can appear as baffling at times when we come into contact with the land of contrasts. The course will be exploring the political, social-economic and cultural-religious developments on the sub-continent from the pre-Mutiny to post-independence period. A field experience is embedded to explore the diasporic community of the northern Indian communities in Singapore and linkages made to themes in the course. You are expected to be able to appreciate and apply a diversity of evidence from text and fieldwork; as well as test your ideas in the presentation. Finally, you are also encouraged to incorporate any issue of contemporary significance or linkage to heritage concern.

AAH33N Heritage and Culture

The chief aim of this course is to teach you that while heritage is not history, it is another way of seeing the past. You are engaged in making practical assessments of historic landscapes and examining the heritage value of historical sites and landmarks. You are to do a major case study of a place that you consider to be of heritage value and how your own family history relates to that place. The significance and meaning of what constitutes heritage is covered. You can consider why some historical sites and monuments and not others are regarded as essential for school field trips and tourism. The question of how the public perceives the past as it is presented in museums and in historic buildings is also analysed. Thus, the course aims to make you aware of how looking at the past as heritage can lead to a greater understanding of primary and secondary sources in historical research and writing.

AAH40B Reading Sources: Evidence from the Past

This course provides a critical understanding of the ways in which historians read and interpret primary sources and reconstruct historical reality. This builds upon the skills of reading and interpreting sources that students have acquired in previous courses through case studies of themes and topics to be decided in discussions between lecturer and students. Students will have opportunity to discuss the use of a wide range of primary sources, textual or otherwise. The course will also guide student teachers in order to locate and analyse appropriate sources for their Academic Exercise.

AAH43A Tradition and Resistance in Twentieth-Century Southeast Asia

This course aims to explore several themes of interest, spanning areas of study in political, economic, social-cultural as well as military aspects of society, such as imperial consolidation in the Southeast Asian archipelago, diaspora, Great Depression as well as less well-known developments during WW1 and the interwar years in Southeast Asia. You will be expected to apply selected theoretical paradigms (such as from Shils, Goldstone and Wallerstein) and concepts (such as 'tradition' and 'resistance') to explore how societies in the region cope with the tumultuous transition of time in the 20th century. Finally, coupled with museum experience, you are also encouraged to explore related issue of heritage concern linked to the themes of the course.

AAH43B Patriarchy and Gender: Women in China

This course will examine the history of women in China with particular emphasis on Late Imperial China and the Republican period. Through examination and discussion of Chinese gender codes, patriarchy, gender theories and women's liberation beginning in the late nineteenth-century, this course seeks to address specific issues such as women's place in the family and society; women's culture, nationalism and women's rights. By placing these issues in the historical context of Late Imperial and Republican China and beyond, historical change and continuity in the issues continuing to face women in contemporary China will be traced.

AAH43D The History of Racial Thought

The chief aim of this course is to teach you that there are various ways of seeing the past, one of them is intellectual history or the history of ideas. This course is a history of ideas about race. There is an examination of the history of racial thought in Western societies. The course starts with classical and Biblical views of human types. There is a focus on racial ideologies rationalising European settlement of the New World, America, Australia, and the Pacific. Racial justifications for slavery and colonialism are covered. Then the course deals with the impact of the enlightenment and the rise of scientific racism. Social Darwinism, passing onto anti-Semitism and Nazi racial ideology. It ends with a study of contemporary racism in western societies. Thus, the course aims to make you aware of how looking at the past as the history of ideas can lead to a greater understanding of primary and secondary sources in historical research and writing.

AAH43G The Vietnam War

In this course, you will analyse the origins and evolution of the Vietnam War as a national and international conflict of enduring interest in both Vietnam and the United States. You will also consider the major domestic and international factors that affected political and military decisions. Reflecting recent developments in the field, you will focus on both the view from Washington and the perspectives of the Vietnamese (both North and South) at relevant points of the course. The course can complement earlier courses such as International History and Modern Southeast Asia completed in previous semesters.

AAH43H Seminars on Historical Thought and Practice

This seminar course aims to provide you with an understanding of selected issues in historical discourse and professional practice. In linking substantive historical knowledge with critical inquiries into the past, you will develop insights into the nature of historical writing and how these may support successful history teaching in schools.

AAH43J History, Memory, and Violence in Asia

Student teachers in this course will develop the capacity to critically analyse memories and representations of violent episodes in twentieth-century Asia. In particular, students will develop new understandings of how violent histories are dealt with in the present, and how these shape social and political relations in and between different communities and countries. The course will be focused on case studies from the Pacific War in East Asia (1937-45) and Cold War in Southeast Asia (1945-91), including Nanjing Massacre, the so-called “Comfort Women”, historical revisionism in Japan, anti-communist killings in Indonesia, the Vietnam War, and Khmer Rouge genocide in Cambodia. Students will pay particular attention to mediums of memory, such as oral history, museums, monuments, commemorative days and ceremonies, Internet sites, visual culture, film, and post-conflict tribunals.

ACADEMIC DISCIPLINE: MALAY STUDIES

Table 1: AD Major Structure for Bachelor of Arts in Malay Studies and Education (Primary / Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAD10A	Language Refinement and Malay Culture	Core	3	-
	AAD10B	Malay in Context	Core	3	-
	AAD10G	The Study of Malay Language	Core	3	-
	AAD10D	Malay Phonetics and Phonology	Core	3	-
	AAD10E	Jawi and the Malay Language	Core	3	-
2	AAD20A	Malay Morphology	Core	3	-
	AAD20B	Malay Syntax	Core	3	-
	AAD20C	Origin and Development of Malay Language	Core	3	-
	AAD20D	Cultural Life and Practices of the Malays	Core	3	-
	AAD20E	Sociolinguistics of the Malay Language	Core	3	-
	AAD20G	Malay Semantics and Pragmatics	Core	3	-
3	AAD30A	Discourse Analysis in Malay	Core	3	-
	AAD30B	Malay Arts and Civilization	Core	3	-
	AAD30D	Readings in Language Education	Core	3	-
4	AAD40A	Language Planning and Policy	Core	3	-
	AAD40B	Bilingual Learners and Bilingual Education	Core	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAD10B is cross listed with AAD08A, offered as a Broadening & Deepening Elective (BDE).

AAD10A Language Refinement and Malay Culture

This course introduces student teachers to the idea that language expresses the patterns and structures of culture, and consequently influences human thinking, manners, and judgement. Focusing on common proverbs and other verbal arts in Malay as forms of language refinement, discussions will explore how they reflect the speakers' cultural sense of politeness, how they are different from or similar to proverbs in other languages, and how differences might underscore historical and cultural background.

AAD10B Malay in Context

This course examines how Malay works in a wide range of contexts, including the media, fiction, academic writing, and everyday conversation. It provides a beginner's framework and meta-language for talking about how written and oral communications can be adapted in ways, which present our message and us in different lights. The aim is to enable student teachers to make systematic and critical observations of language as they use and encounter it in different contexts.

AAD10G The Study of Malay Language

This course introduces student teachers to the nature of the Malay language. It explores key aspects of the language by examining the structure of its linguistic units (sounds, words, phrases, clauses, and meanings), writing systems, its acquisition (learning and processing), and its relationship with culture and society. The course provides the foundation for further investigation into Malay in subsequent semesters.

AAD10D Malay Phonetics and Phonology

This course introduces student teachers to the sounds and sound patterns in Malay. They will learn how speech sounds are produced, become familiar with the IPA chart and be able to read and produce phonetic transcriptions. They will explore concepts such as phonemes, allophones, distinctive features, syllable structure, distribution, and alternation. They will also examine some of the common phonological processes in Malay in relation to cross-linguistic patterns.

AAD10E Jawi and the Malay Language

This course highlights the special place of Jawi and Islamic writings in the Malay language. It traces the

origins of the Arabic script, the Persian influences, and adaptations into Malay classical script. Student teachers will examine the old and modern development of Jawi writings and manuscripts as well as related theoretical issues. Some of the key resources will be introduced, and practice in reading and writing of Jawi materials, old and new, will be provided.

AAD20A Malay Morphology

This course explores word formation in Malay. Student teachers will be taught the basic elements of words (free and bound morphemes) and the distinction between morphemes and allomorphs, and the main word formation processes (affixation, reduplication, compounding, and acronyms). Emphasis will also be placed on the meaning and functions of affixes in word formation and morpho-phonological processes.

AAD20B Malay Syntax

This course offers an integrated approach to the theoretical and descriptive study of sentence structure in Malay. It explores how words combine into larger units, the different parts of the sentence and how these parts relate to each other. The course will discuss the key features of the major constituents of Malay sentence (word, phrasal and clausal categories) and the various functions they perform (syntactic functions). The principles of syntactic theory will be introduced to enable student teachers to carry out basic linguistic analysis and explore issues with regard to grammatical errors.

AAD20C Origin and Development of Malay Language

This course will examine how Malay has changed phonologically, morphologically, syntactically, and

lexically. It will also explore why the language changes may have occurred from a social, cultural, and political perspectives. References will be made to the old Malay inscriptions and the influences of several languages: Sanskrit, Arabic, Persian, and others. Student teachers should have a thorough understanding of the development of Malay from its Austronesian roots to its present position as a modern language.

AAD20D Cultural Life and Practices of the Malays

The aim of this course is to discover how Malay culture has ordered reality in the past and present, and how it has shaped the lives and practices of the Malays. The course introduces student teachers to an analysis of the various components of Malay beliefs, customs, and practices. Discussions will centre on the important festivals and their values, places of worships, customs and traditions, and the interaction of the Malays with the various components of cross-cultural practices existing in Singapore's multiracial culture.

AAD20E Sociolinguistics of the Malay Language

This course provides student teachers with an overview of the relevant topics concerned with the study of language in society. Student teachers examine how language constructs cultural abstractions such as age, social class, gender, ethnicity, and power relations and how these abstractions play out in language varieties and shape their defining characteristics. The course will help student teachers to understand the practical implications of language variation, maintenance and shift for language policy and language education in multilingual societies such as Singapore.

AAD20G Malay Semantics and Pragmatics

This course aims to provide an understanding of the principles underlying the expression of meanings through language. It surveys basic topics in semantics such as sense and reference, lexical semantics and basic sense relations, semantics and grammar, and logical forms. It also provides an introduction to pragmatics. The physical and cultural contexts within which communications occur will be looked into to develop an understanding of the role they play in the communication of meaning.

AAD30A Discourse Analysis in Malay

This course introduces student teachers to the grammatical features in discourse and the relevant analytic frameworks of Discourse Analysis. Issues explored include how studying grammar in context help us understand social relationships, how texts position people in certain ways and the resources we have for resisting such positioning, and how the wider social processes and institutions shape the language we use and the meanings we make from it.

AAD30B Malay Arts and Civilisation

This course introduces an overview of the historical and cultural development of arts and civilization of the Malays. This includes the location of cultural hearths, the extent of cultural regions and the spatial diffusion of cultural groups. You will be given the opportunity to identify the multiple manifestations of Malay arts and civilization such as traditional Malay architecture, performing arts, fine arts, crafts, economies, government, etc. as well as critically analyse processes of cultural acculturation and assimilation within and relating to Malay civilization.

AAD30D Readings in Language Education

This course prescribes readings and discussions of selected areas in language, literacy and culture in illuminating issues around Malay language education in Singapore. It provides a conceptual framework for understanding the social, cultural and political processes mediating language and literacy learning. Some of the topics include the ideological aspects of language, home language and literacy practices, the social construction of the language curriculum, classroom teaching and learning practices, and cultural and critical literacy.

AAD40A Language Planning and Policy

This course introduces you to the area of study concerned with the action and analysis relating to human intervention on language and language uses. You will be introduced to the basic concepts in the field of language planning and policy, with an emphasis on how regional and national level sociolinguistic factors impinge on language planning decisions. It will present the Malay language as a case study of the language planning at work in Singapore and in the region, in particular in relation to the standardization of the language.

AAD40B Bilingual Learners and Bilingual Education

This course examines the societal, political, and historical contexts that are important to the educational issues associated with language and literacy support for bilingual learners. Discussions will revolve around issues in bilingual education, sociolinguistics, pedagogy, and empowerment. The course also looks at examples of language classrooms which show how the increasingly complex demands of language and

literacy pedagogy in contemporary times can be effectively addressed.

ACADEMIC DISCIPLINE: MATHEMATICS & COMPUTATIONAL THINKING

Table 1: AD Major Structure for Bachelor of Science in Mathematics & Computational Thinking and Education (Primary / Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAM10A	Linear Algebra I	Core	3	-
	AAM10B	Calculus I	Core	3	-
	AAM10E	Introduction to Probability and Statistics	Core	3	-
	AAM10G	Discrete Mathematics	Core	3	-
2	AAM20A	Linear Algebra II	Core	3	Must have done AAM10A
	AAM20B	Calculus II	Core	3	-
	AAM20C	Statistics I	Core	3	-
	AAM20D	Computational Mathematics	Core	3	-
	AAM20E	Differential Equations	Core	3	-
	AAM20H	Number Theory	Core	3	AAM10G
3	**Select any 3 electives**				
	AAM33A	Special Topics in Mathematics I	Pres	3	-
	AAM33C	Statistics II	Pres	3	-
	AAM33D	Real Analysis	Pres	3	-
	AAM33E	Modern Algebra	Pres	3	-
	AAM33G	Modelling with Differential Equations	Pres	3	AAM20E
	AAM33J	Combinatorial Analysis	Pres	3	-
	AAM33K	Complex Analysis	Pres	3	-
4	**Select any 3 electives***				
	AAM43A	Special Topics in Mathematics II	Pres	3	-
	AAM43B	Statistical Theory	Pres	3	AAM33C
	AAM43C	Applied Statistics	Pres	3	AAM33C
	AAM43D	Techniques in Operations Research	Pres	3	-
	AAM43E	Mathematical Programming and Stochastic Processes	Pres	3	-
	AAM43G	Metric Spaces	Pres	3	-
	AAM43H	Galois Theory	Pres	3	AAM33E
	AAM43J	Graph Theory	Pres	3	-
	AAM43K	Geometry	Pres	3	-
	AAM43L	Advanced Mathematical Modelling	Pres	3	AAM20E

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

* Student teachers reading AD Mathematics & Computational Thinking may replace one Year 4 course with one Year 3 course that they have not previously taken.

AAM10A Linear Algebra I

This first course in linear algebra aims to provide student teachers with the knowledge of basic set theory, functions, linear systems, matrix algebra, determinant function, eigenvalues and eigenvectors, and vectors in 2-space and 3-space. It will equip student teachers with the content knowledge for taking other courses, especially Linear Algebra II, which is the second course in linear algebra. It also provides student teachers with the opportunities to see the interlink between different structures in mathematics. Topics covered include: Basic set theory, functions, linear systems and solutions, Gaussian and Gauss-Jordan eliminations, matrices and matrix operations, invertible matrices, methods of finding inverse of an invertible matrix, determinant function and applications, vectors in 2-space and 3-space, dot product, cross product, equations of straight lines and planes, eigenvalues and eigenvectors, diagonalisation.

AAM10B Calculus I

This course aims to introduce student teachers to concepts in beginning undergraduate calculus (of one variable) so that student teachers can have a deeper understanding of school calculus content knowledge and the advanced knowledge of calculus so that they are prepared for Multivariable calculus and Real Analysis. This course also aims to give student teachers an introductory calculus related proofs in ε-δ and ε-N definitions. Topics covered include: Functions, sequences and graphs, limits of functions, ε-δ definitions and ε-N definitions, Continuous functions and results (Intermediate Value Theorem), Differentiation and Derivative, techniques of differentiation and their results (Mean value Theorem

and Rolle's Theorem), Applications of Differentiation in gradients of tangents and normal, analysis of functions, Riemann sums and Riemann integral, Antiderivative, Indefinite Integral Theorem and Fundamental Theorem of Calculus, Integration Techniques.

AAM10E Introduction to Probability and Statistics

This course aims to introduce you to the fundamental concepts and methods of probability and statistics, equipping you with the skills to perform effective data analysis and extract meaningful insights. Additionally, it provides a solid foundation for further study in advanced statistical topics and their applications. Topics covered include: Measures of location and variability. Discrete and continuous data. Sample space and events. Conditional probability and independence. Discrete and continuous probability distributions. Mathematical expectations. Sampling distributions and Central Limit Theorem. Hypothesis testing: one sample for mean.

AAM10G Discrete Mathematics

This course aims to introduce you to basic counting principles and techniques and to develop your mathematical problem-solving skills by applying these principles and techniques to solve a variety of counting problems. It also aims to introduce you to fundamental properties of integers, and to mathematical reasoning and methods of proofs by using integers as a context. Topics covered include: Addition and Multiplication Principles, permutations and combinations, Bijection Principle, distributions, generalized permutations and combinations, Binomial Theorem, Principle of Inclusion and Exclusion (for up to three sets), Pigeonhole Principle (basic version), methods of

proof, axioms of Integers, divisibility, greatest common divisors, Euclidean algorithm, Diophantine equations, primes and the Fundamental Theorem of Arithmetic.

AAM20A Linear Algebra II

This is a second course in linear algebra, which builds on the concepts learned in Linear Algebra I. It aims to introduce student teachers to the fundamental concepts of real vector spaces and linear transformations. The materials covered in this core course, as well as in Linear Algebra I, form essential background for future study in all other areas of pure and applied mathematics. Topics covered include: Basic logic, real vector spaces, subspaces, linear independence, spanning sets, basis and dimension, row space, column space, nullspace, rank and nullity, orthogonality in Euclidean n-space, eigenvalues and eigenvectors, diagonalization, linear transformations.

AAM20B Calculus II

This is the second core course in calculus, which builds on the concepts learned in Calculus I. It aims to introduce student teachers to sequences and series, and the calculus of real-valued functions of two variables. Topics covered include Sequences, ε-N definition of limit of sequence, limit theorems for sequences, monotonic and bounded sequences, infinite series, definition of convergence and sum of infinite series, various tests for convergence and divergence of series, absolute and conditional convergence, power series, interval and radius of convergence, differentiation and integration of power series, Taylor series and Maclaurin series. Partial derivatives for functions of two variables, differentiability, and chain rules for functions of two variables, directional derivatives and gradients for

functions of two variables, tangent planes, linearization, maxima and minima of functions of two variables, double integrals.

AAM20C Statistics I

This first course in statistics aims to introduce student teachers to the fundamental concepts in statistics. The course will provide a good foundation for study in further statistics topics and applications. Topics covered include Discrete and continuous distributions. Mathematical expectations. Sampling distributions and Central Limit Theorem. Estimation, confidence intervals and hypothesis testing: one sample for mean, proportion and variance.

AAM20D Computational Mathematics

This course aims to teach student teachers how to exploit the power of modern computers as an experimental adjunct to support their theoretical understanding of mathematics. The course will cover the following suggested topics but with the option to substitute with other topics in mathematics where computing could be applied: Arithmetic and Number Theory: distribution of primes in the large number limit. Calculus and Analysis: graph plotting, numerical differentiation, and integration. Geometry and Algebra: vector and matrix operations, transformations, fractals. Probability and Statistics: random numbers, simulation, the normal distribution. Other Programming Languages: appreciation of commonality of core concepts

AAM20E Differential Equations

This course aims to introduce student teachers to elementary theory and application of (ordinary) differential equations so that student teachers can

have a deeper understanding of A-level differential equations and the advanced knowledge of ordinary differential equations so that they are prepared for advanced theory and modelling using differential equations. Topics covered include Qualitative Theory of First Order Differential equations: Existence and Uniqueness Theorem, Slope fields. Analytic solution of some common first order differential equations (separable, linear, exact) and others that are reducible to the above forms by substitution. Modelling of some real-world phenomena by first order differential equations (including population growth models, compartmental analysis, Newtonian mechanics of motion under variable forces). Theory of second order differential equations (including liner dependence and independence of solutions to homogeneous linear differential equations and Wronskian). Solution of second order linear homogeneous differential equations with constant coefficients and other types of equations reducible to this (e.g. Euler's equation). Solution of second order non-homogeneous differential equations by method of undetermined coefficient and variation of parameters. Modelling of some real world phenomena by second order differential equations (including simple harmonic motion).

AAM20H Number Theory

This course aims to introduce you to fundamental concepts in elementary number theory, including primes and unique factorization, congruences, primitive roots, quadratic reciprocity and representations as sums of squares. Real world applications of number theory will also be discussed. Examples include the use of check digits for error detection in our National Registration Identity Card

(NRIC) numbers and the RSA encryption system for secure online transactions.

AAM33A Special Topics in Mathematics I

This course aims to introduce student teachers to some selected topics in mathematics so that they are exposed to different fields of mathematics (which may include real-life applications of mathematics) that are not seen in the regular Year 3 course offerings.

AAM33C Statistics II

This course in statistics is a continuation of the statistics course AAM20C. The course aims to provide a good foundation for study in further statistics topics and applications. Topics covered include: Two-sample confidence intervals and two-sample hypothesis testing for comparing means, proportions or variances; Chi-square goodness-of-fit tests, and contingency tables: test of homogeneity and test of independence; Simple linear regression: least squares estimation and inference (including diagnostic checking).

AAM33D Real Analysis

This course deals with the properties of real numbers in three aspects: order, algebra and topology. It also deals with fundamental notions of limits, continuity, differentiability and Riemann-integrability. The main objective of this course is to acquaint student teachers to real number system and the real-valued functions. In this course, student teachers will learn more about (1) the real number system: the completeness axiom, the Nested Interval Property, and the Bolzano-Weierstrass Theorem, and (2) properties of real-valued functions. One ultimate goal is that student teachers are able to prove the Fundamental Theorem of Calculus. Topics covered include: The

Completeness Axiom. The Archimedean Property. Density of rational and irrationals. The limit of a sequence, limit theorems. The limit of a function, the continuity of a function. The Intermediate Value Theorem. The Bolzano-Weierstrass Theorem. Extreme Value Theorem. Differentiation. Mean Value Theorem. Riemann Integration. The Fundamental Theorem of Calculus.

AAM33E Modern Algebra

This first course in abstract algebra aims to introduce student teachers to the algebraic structures of rings and groups, and to present a range of examples to facilitate the understanding of the abstract theory so that student teachers have a good grasp of the fundamental concepts in abstract algebra. This course will provide a good foundation for further study in advanced algebra topics and in areas where abstract algebra has applications. Topics covered include Rings and subrings, integral domains and fields, ring isomorphism and homomorphism, rings of polynomials, divisibility in polynomial rings over a field, factorization of polynomials over a field, ideals and quotient rings of commutative rings with identity, First Isomorphism Theorem. Groups and subgroups, cyclic groups, permutations, symmetric group on n letters, cosets, Lagrange's Theorem, quotient groups, group isomorphism and homomorphism, Fundamental Homomorphism Theorems.

AAM33G Modelling with Differential Equations

The course aims to equip student teachers with the skills and knowledge of solving differential equations using specific methods with a view to apply them in investigating real world problems through mathematical models. The course consists of five

major topics: The Laplace Transform and its use in solving ordinary differential equations. Introduction to MATLAB and its application to mathematical problem solving. Numerical Solutions of Ordinary Differential Equations. Systems of Linear First-order Differential Equations. Plane Autonomous Systems.

AAM33J Combinatorial Analysis

This course aims to develop student teachers' mathematical problem-solving skills by a variety of counting problems which can be solved by the general principle of inclusion-exclusion or generating functions. Topics covered include: Principle of inclusion-exclusion, general principle of inclusion-exclusion, Surjective mappings, the Stirling number of the second kind, derangement and Euler φ-functions; ordinary generating functions, operations of ordinary generating functions; some modelling problems, partitions of integers, and exponential generating functions.

AAM33K Complex Analysis

This course deals with the theory of functions of one complex variable. The main objective of this course is to acquaint student teachers to complex valued functions of a special kind, namely the holomorphic (or analytic) functions. In this course, student teachers will learn more about the complex number system, its Euclidean topology as well as the theory of analytic functions. One ultimate goal is that student teachers are able to make use of complex integration and prove the Fundamental Theorem of Algebra. Topics covered include: Complex numbers in various representations, basic topology on the complex plane, limits and continuity, differentiability and analyticity, Cauchy-Riemann equations, examples of complex valued

functions (polynomials, trigonometrical functions, exponential functions, branches of logarithmic functions), Contour integrals, Cauchy-Goursat Theorem, Deformation Principle, Cauchy Integral Formula, Residue Theorem, Fundamental Theorem of Algebra.

AAM43A Special Topics in Mathematics II

This course aims to introduce student teachers to some selected advanced topics in mathematics so that they are exposed to different fields of mathematics (which may include real-life applications of mathematics) that are not seen in the regular Year 4 course offerings.

AAM43B Statistical Theory

This course aims to develop an understanding of the mathematical foundations of statistical inference. Topics covered include: Further univariate distributions; Bivariate distributions; Moment generating functions and proof of Central Limit Theorem; Sampling distributions: t-, F-, and chi-square distributions; Selected topics from estimation theory and hypothesis testing theory.

AAM43C Applied Statistics

This course in statistics provides a continuation of the two introductory statistics courses AAM20C and AAM33C. This course aims to further introduce a range of statistical methods and applications on design of experiments and non-parametric tests.

Topics covered include: Elements of a designed experiment; One-factor analysis of variance and experimental designs with emphasis on completely randomised design and randomised block design,

multiple comparison, residual analysis and model checking; Two-factor analysis of variance and factorial designs, multiple comparison; Non-parametric tests with emphasis on signed-rank test, Wilcoxon rank-sum test, Kruskal-Wallis test, and Friedman test.

AAM43D Techniques in Operations Research

This course aims to provide an introduction to certain topics in the field of Operations Research, called “OR” for short, where mathematical methods are applied to real world problems which possess quantitative solutions. This course will focus on two of the four principal pillars of OR, which are methods which apply to networks, and those which apply to more general routing or scheduling problems. The other two pillars are covered in the standalone course AAM43E Mathematical Programming and Stochastic Processes. This course will cover the following suggested topics: 1) Network Optimization: shortest spanning trees, trees of shortest paths, sensitivity analysis. 2) Transportation Problems: maximal flows, the Ford-Fulkerson algorithm, least cost flows. 3) Scheduling and Sequencing: critical path analysis and the job shop scheduling problem. 4) Routing and Allocation: least cost assignments and the travelling salesman problem.

AAM43E Mathematical Programming and Stochastic Processes

This course aims to provide an introduction to certain topics in the field of Operations Research, called “OR” for short, where mathematical methods are applied to real world problems which possess quantitative solutions. This course will focus on two of the four principal pillars of OR, which are methods applied to systems of linear equations, and those which apply to probabilistic events and queueing systems. The other

two pillars are covered in the standalone course AAM43D Techniques in Operations Research. This course will cover the following suggested topics: 1) Stochastic Processes: random arrivals and departures, application to inventory systems. 2) Queueing Theory: single and multi-server queueing systems, queue length, waiting time. 3) Linear Programming: the simplex and dual simplex algorithms, sensitivity analysis. 4) Integer Programming: inclusion of integer constraints, branch and bound algorithms.

AAM43G Metric Spaces

This course is an introductory one for metric spaces. Metric spaces are a generalization of Euclidean distance that is commonly used in calculus of real and complex variables. Theorems in metric space theory are useful in establishing principles of convergence commonplace in real and complex analyses. Topics covered include: Introduction to metric spaces; Open sets and closed sets; Sequences in metric spaces; Continuity; Compactness and completeness; Contraction mapping.

AAM43H Galois Theory

This course aims to introduce student teachers to Galois theory, which brings together different areas of mathematics to solve some classical mathematical problems. It explains why there are formulas for the roots of quadratic, cubic and quartic equations, but no formulas exist for the roots of polynomial equations of degree 5 and above. Topics covered include: Field extensions, simple, finite and algebraic extensions, splitting fields, normal and separable extensions, primitive elements, finite fields, Galois groups, Galois

extensions, The Fundamental Theorem of Galois Theory, solvability by radicals.

AAM43J Graph Theory

This course aims to provide student teachers with some fundamental knowledge of graph theory, to train student teachers to apply graph theory to solve other problems, and to develop student teachers' ability to write solutions with logical explanations. Topics covered include: Fundamental concepts and basic results (including Handshaking Lemma and the triangular inequality for distances); Graph isomorphism, testing isomorphic graphs, subgraphs, complements of graphs, self-complementary graphs; bipartite graphs; tree and its characterizations; spanning trees of graphs; the four-color theorem; vertex colouring; chromatic number; enumeration of chromatic numbers; greedy colouring algorithm; Brooks' theorem; application of colourings.

AAM43K Geometry

Geometry is one of the most fundamental and important mathematics topics. The modern Euclidean geometry was built as an axiomatic system. This course will introduce a complete and rigorous axiomatic system for Euclidean plane geometry. It will also briefly cover the non-Euclidean geometries such as Elliptic geometry and Hyperbolic geometry. By taking this course, student teachers will get a deeper understanding of the axiomatic structures of plane geometry, know the undefined and defined terms, axioms and main theorems. They will also learn the rigour and correct concepts in plane geometry, such as the definition of line segment, ray, angle, triangle, congruency and similarity of triangles, angle measure and area. Topics covered include: Axiomatic systems;

Incidence Geometry; undefined terms and axioms of Neutral geometry; the three parallel postulations; Euclidean geometry; tests for congruent triangles; alternate interior angles theorem and conditions for parallel lines; similar triangles; the Fundamental Theorem for similar triangles; the Pythagorean Theorem; the Median concurrence Theorem; Non–Euclidean Geometry: Hyperbolic Geometry; the Neutral Area postulate; the Euclidean Area postulate; area and defect in hyperbolic geometry.

AAM43L Advanced Mathematical Modelling

The course aims to equip student teachers with basic knowledge in partial differential equations and their solutions using numerical methods, with a view to applying them in investigating and examining mathematical models such as the diffusion equation, Laplace equation and wave equation. The course consists of five major topics: 1) Fourier Series and its use in representation of periodic functions. 2) Introduction to partial differential equations. 3) Analytic method of solving partial differential equations. 4) Numerical methods for partial differential equations. 5) Convergence and Stability of numerical methods.

ACADEMIC DISCIPLINE: MUSIC

Table 1: AD Major Structure for Bachelor of Arts in Music and Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAI10E	Foundation Studies in Music Education	Core	3	-
	AAI10J	Instrumental Studies 1	Core	1	-
	AAI10K*	Junior Recital	Core	2	AAI10J
	AAI10L	Baroque and Classical Musical Practices	Core	3	-
	AAI10M	Music Theory for Diverse Sonic Worlds I	Core	3	-
	AAI10N	Ethnomusicology in the Singapore Context	Core	3	-
2	AAI20J	Composing and Arranging	Core	3	-
	AAI20K	ICT and Music Education	Core	3	-
	AAI20M*	Instrumental Studies 2	Core	2	AAI10K*
	AAI20N	World Music Ensembles	Core	3	-
	AAI20Q	Romantic and 20th Century Musical Practices	Core	3	-
	AAI20R	Aural Skills for the 21st Century Musician	Core	3	-
	AAI20S	Music Theory for Diverse Sonic Worlds II	Core	3	AAI10H/ AAI10M
3	AAI30B*	Senior Recital	Core	2	AAI10K*
	AAI30D	Music Theory for Diverse Sonic Worlds III	Core	3	AAI20L/ AAI20S
	AAI33J	Conducting	Core	3	-
4	AAI40D	Philosophy and Music Education	Core	2	-
	AAI40G	Popular Musics and Jazz	Core	3	-

* This course spans two semesters.

Table 2: AD Major Structure for Bachelor of Arts in Music and Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAI10E	Foundation Studies in Music Education	Core	3	-
	AAI10J	Instrumental Studies 1	Core	1	-
	AAI10K*	Junior Recital	Core	2	AAI10J
	AAI10L	Baroque and Classical Musical Practices	Core	3	-
	AAI10M	Music Theory for Diverse Sonic Worlds I	Core	3	-
	AAI10N	Ethnomusicology in the Singapore Context	Core	3	-
2	AAI20J	Composing and Arranging	Core	3	-
	AAI20K	ICT and Music Education	Core	3	-
	AAI20L	Foundations in Music Studies II	Core	3	AAI10B / AAI10H
	AAI20M*	Instrumental Studies 2	Core	2	AAI10K*
	AAI20N	World Music Ensembles	Core	3	-
	AAI20Q	Romantic and 20th Century Musical Practices	Core	3	-
	AAI20R	Aural Skills for the 21st Century Musician	Core	3	-
	AAI20S	Music Theory for Diverse Sonic Worlds II	Core	3	AAI10H/ AAI10M
3	AAI30B*	Senior Recital	Core	2	AAI10K*
	AAI30D	Music Theory for Diverse Sonic Worlds III	Core	3	AAI20L/ AAI20S
	Select any 1 elective				
	AAI33G	Composing	Pres	3	-
	AAI33H	Ethnomusicology	Pres	3	-
	AAI33J	Conducting	Pres	3	-
4	AAI40D	Philosophy and Music Education	Core	2	-
	AAI40G	Popular Musics and Jazz	Core	3	-

* This course spans two semesters.

AAI10E Foundation Studies in Music Education

This course introduces a study of historical, psychological and philosophical foundations of music education including established music educators and their contributions. This introduction to fundamental philosophies, principles and educational practices in the field of music education forms a knowledge base

for developing ways of thinking and knowing of and about music education for the music classroom.

AAI10J Instrumental Studies 1

Instrumental studies provide student teachers the opportunity to become more effective musicians through experiencing the expressive qualities of music by mastering a solo instrument. This course aims to prepare student teachers to perform a full recital that demonstrates their command of repertoire comprising various styles. It comprises a series of weekly instrumental studies over one semester through which student teachers develop increasing confidence and musical sensitivity as they engage with progressively complex techniques and a broadening range of musical genres. They are required to constantly reflect upon and document their learning process as a form of formative assessment to support their instrumental development.

AAI10K Junior Recital

Recitals provide students the opportunity to become more effective musicians through experiencing the expressive qualities of music by mastering a solo instrument. This course aims to prepare students to perform a full recital that demonstrates their command of repertoire comprising various styles. It is the culmination of weekly instrumental studies over semesters through which students develop increasing confidence and musical sensitivity as they engage with progressively complex techniques and a broadening range of musical genres.

AAI10L Baroque and Classical Musical Practices

This course seeks to introduce to student teachers Western musical practices by situating them in a social

and historical context. Musical practices, via creating performing and responding, form the basis of learning about any specific musical practice and the activity of experiencing and reflecting on the musical practice. Each musical practice would have to be viewed from its own culturally situated and practice specific context. This course acknowledges a constructivist paradigm in the teaching and learning of and about music asserting knowledge as being uniquely constructed by individuals. Learning is facilitated in an environment, which is created and/or constructed by both student teachers and facilitators as stakeholders.

AAI10M Music Theory for Diverse Sonic Worlds I

This course is part of a three-course sequence (AAI10M, AAI20S, and AAI30D) aimed at equipping music students and student teachers with an inclusive epistemological framework to understand the wide and diverse array of musical traditions, styles and genres in today's music landscape as well as acquire some basic music composing skills. While the course content takes reference from the MOE school music syllabi, there are provisions for you to explore other musics or sonic worlds that are of interest to you. The music-theoretical foundation laid is broad and flexible enough to serve your learning across the music curriculum in your undergraduate studies at NIE and beyond.

This first-year course puts you on a journey to examine and understand a select range of music – Western classical, a variety of pop, as well as Chinese traditional and Malay traditional musics – in a culturally-informed and, where relevant, non-Western centric manner. You will also learn the traditional SATB writing and two-part counterpoint not for its own sake but as a means to achieve a more generalized

understanding of compositional thinking beyond the Western classical paradigm.

AAI10N Ethnomusicology in the Singapore Context

Ethnomusicology in the Singapore Context introduces you to the field of ethnomusicology by emphasizing music as a lived, expressive, and socially embedded practice. You will explore how musical traditions shape and reflect community life, cultural values, identities, and everyday experiences. Through this lens, you will examine the many roles music plays in meaning-making, social interaction, and cultural continuity both locally and beyond.

Blending theory with experience, you will take part in exploratory learning activities such as ensemble performance, rhythmic recitation, and movement-based exercises that help you understand how music is learned, embodied, and transmitted across generations. These are complemented by critical listening, contextual analysis, and guided discussions that encourage deeper reflection on music's role in society.

A key assignment is a content creation project that invites you to engage in cultural storytelling and reflective interpretation, allowing you to connect ethnomusicological perspectives with real-world musical encounters. Whether or not you have a musical background, this course equips you with the tools to think critically, listen attentively, and engage meaningfully with the complexity and richness of local musical practices.

AAI20J Composing and Arranging

This course aims to develop foundational skills in melody writing, arrangement, and composition structuring. Upon course completion, you will be able

to compose short pieces involving melody and accompaniment, as well as gain some technical understanding of what makes an effective composition. By composing a piece for fellow course mates to play live, you will have an authentic situation to put your technical knowledge into practice, evaluate your composition, as well as communicate your musical ideas to other musicians.

AAI20K ICT and Music Education

This course focuses on a knowledge and understanding of ICT applications appropriate for music education. The course is taught in a practical way with student teachers being given hands-on experience of the computer programmes under study and opportunities to explore internet resources for music teaching. Student teachers will be introduced to composing and arranging using sequencing programmes. They will be taught how to edit, mix and master the resulting tracks. The use of music applications for mobile devices, tablets and smartphones will be introduced. Schemes of work to integrate these programmes into music teaching and learning will be considered.

AAI20M Instrumental Studies 2

Instrumental studies provide students the opportunity to become more effective musicians through experiencing the expressive qualities of music by mastering a solo instrument. This course is a follow-up to Instrumental Studies 1. It aims to prepare students to perform a full recital that demonstrates their command of repertoire comprising various styles. It comprises a series of weekly instrumental studies over two semesters through which students develop increasing confidence and musical sensitivity as they

engage with progressively complex techniques and a broadening range of musical genres. They are required to constantly reflect upon and document their learning process as a form of formative assessment to support their instrumental development.

AAI20N World Music Ensembles

This course aims to introduce Chinese, Malay and Indian traditional music practices from a culturally situated and practice specific context. It will enable student teachers to learn about the basic elements and concepts of the traditional music and examine the skills individual performers require in the development of ensemble performance in the field of Chinese, Malay and Indian Music.

Chinese music will be explored within the cultural context of Singapore where student teachers are taught the basics of performance on the guzheng within an ensemble situation. The course will also enable student teachers to learn about the basic elements and concepts of Malay music and dance within the cultural context of Singapore. They will be taught two important Malay music genres: zapin and ghazal. The course will also touch briefly on other genres such as nobat, joget, kronchong, and kuda kepang. Performance techniques will involve acquiring skills in interlocking rhythmic variations and doing group performances. Finally, this course will provide student teachers with practical experiences on both North and South Indian classical music within the cultural context of Singapore. They will be given a basic understanding of raga and tala and in the playing of the tabla, sitar and the use of Indian vocal techniques.

AAI20Q Romantic and 20th Century Musical Practices

This course, the subsequent in the series, represents a further development in learning Western musical practices, via creating, performing and responding, from a culturally situated and practice specific context. Through this course, student teachers will acquire concepts of musical traditions over the two centuries (and beyond) and understand ramifications of such constructions. Learning is facilitated in an environment which is created and/or constructed by both student teachers and facilitators as stakeholders.

AAI20R Aural Skills for the 21st Century Musician

This course aims to provide a firm foundation in aural skills for the 21st Century musician in the globalized Singapore context, drawing in particular on Western Classical music, popular music/jazz, and music from diverse cultures (e.g., Chinese, Malay, Indian). You will be introduced to key listening skills to help you develop a critical ear, aural awareness, and cross-cultural sensitivity to music across different traditions, styles, and genres. Throughout the course, you will develop foundational aural skills (e.g., sight-singing/solfège-singing (including using cipher notation), dictation/aural transcription skills, and abilities to identify harmonies, timbres, other musical and stylistic features through a spiral approach.

AAI20S Music Theory for Diverse Sonic Worlds II

This course is part of a three-course sequence (AAI10M, AAI20S, and AAI30D) aimed at equipping music students and student teachers with an inclusive epistemological framework to understand the wide and diverse array of musical traditions, styles and genres in today's music landscape as well as acquire some basic music composing skills. While the course

content takes reference from the MOE school music syllabi, there are provisions for you to explore other musics or sonic worlds that are of interest to you. The music-theoretical foundation laid is broad and flexible enough to serve your learning across the music curriculum in your undergraduate studies at NIE and beyond.

This second-year course will deepen your music-theoretic understanding and broaden your purview to include Indian and Indonesian traditions. Building on your year-one foundation, we will analyze more demanding pieces of music from repertoire. You will also be more conscious and discerning of musical styles and general features as you continue to learn through compositional exercises.

AAI30B Senior Recital

Recitals provide students the opportunity to become more effective musicians through experiencing the expressive qualities of music by mastering a solo instrument. This course aims to prepare students to perform a full recital that demonstrates their command of repertoire comprising various styles. It is the culmination of weekly instrumental studies over semesters through which students develop increasing confidence and musical sensitivity as they engage with progressively complex techniques and a broadening range of musical genres. This is the second stage to the Junior Recital, and students are expected to perform a longer and more demanding repertoire.

AAI30D Music Theory for Diverse Sonic Worlds III

This course is part of a three-course sequence (AAI10M, AAI20S, and AAI30D) aimed at equipping music students and student teachers with an inclusive epistemological framework to understand the wide and

diverse array of musical traditions, styles and genres in today's music landscape as well as acquire some basic music composing skills. While the course content takes reference from the MOE school music syllabi, there are provisions for you to explore other musics or sonic worlds that are of interest to you. The music-theoretical foundation laid is broad and flexible enough to serve your learning across the music curriculum in your undergraduate studies at NIE and beyond.

This third-year course will introduce you to a number of major compositional styles or approaches that emerged in the twentieth-century, both in the classical music realm and in the pop & jazz vernacular. You will be encouraged to explore – analytically and compositionally – intercultural music including those by Singapore composers.

AAI33G Composing

This course aims to develop your depth and breadth in composition through exposure to diverse musical styles and genres. You will examine the evolution of Western compositional styles over the centuries, explore the traditional music of Singapore and its surrounding region, and investigate approaches to composing for visual media and text. Through shorter exercises, you will try your hand at imitating different styles, developing you technique towards a more substantial semester composition on a topic of personal interest.

AAI33H Ethnomusicology

This course will involve an advanced study of the theory and methods in ethnomusicology. It will emphasize the importance of video techniques and technology in ethnomusicological fieldwork studies.

The course will also give a broad and general introduction mainly on the musical and cultural practices of both Mainland and Insular Southeast Asia.

AAI33J Conducting

This course aims to equip you with the requisite skills to conduct music ensembles. Student teachers with prior musical experience will especially benefit from this practice-based course. After the completion of this course, you should be equipped with a strong foundation in conducting, baton technique, and score study. In particular, you should be able to apply your knowledge and skills across a wide range of musical styles and conduct with poise and confidence in concert settings. Your skills will be developed in a "spiral" fashion whereby the fundamental aspects of conducting and musicianship are continually revisited.

AAI40D Philosophy and Music Education

In this course, the intersection of philosophy and music education will be examined. More specifically, this course seeks to address some of the most fundamental questions with respect to the value of music in society, and why music deserves a place in the school curriculum. A key feature of this course is the inclusion of primary sources by leading philosophers of music, philosophers of education, and philosophers of music education. To broaden student teachers' perspectives and widen their scholarly horizons, weekly readings will include both Western and Eastern thinkers and span from the ancients to living scholars. This course emphasises active participation, dialogical and critical thinking, and seeks to nurture philosophical discourse skills. Throughout the course, connections between philosophy and practice will be made.

AAI40G Popular Musics and Jazz

This course aims to develop an understanding of practices in popular music, including lead sheet notation, arrangement strategies and performance practices. Through guided and self-directed listening, you will learn how to draw from classic repertoire and apply concepts learnt in class to develop your own musical style and ideas.

ACADEMIC DISCIPLINE: SPORT SCIENCE

Table 1: AD Major Structure for Bachelor of Science in Sport Science and Education (Primary / Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	APA10B	Growth & Motor Development	Core	2	-
	APA10C	Anatomical & Biomechanical Foundations of Physical Activity	Core	3	-
	APA10D	Inclusive Physical Activity & Sport	Core	2	-
	APA10E	Theory & Practice of Basketball	Core	2	-
	APA10G	Theory & Practice of Football	Core	2	-
	APA10H	Theory & Practice of Volleyball	Core	2	-
2	APA20A	Foundations of Psychology & Motor Learning in Physical Activity	Core	3	-
	APA20B	Physiology of Exercise	Core	2	-
	APA20C	Sports Injury Prevention and Management in PE and Youth Sport	Core	1	-
	APA20D	Theory & Practice of Softball	Core	2	-
	APA20E	Theory & Practice of Floorball	Core	2	-
3	APA30A	Theory & Practice of Badminton	Core	2	-
	Select any 5 electives				
	APA33C	Psychology of Physical Education & Sport	Pres	3	-
	APA33E	Sociology of Sport	Pres	3	-
	APA33G	Management of Sport Organisations	Pres	3	-
	APA33K	Applied Psychology of Physical Education & Sport	Pres	3	APA20A
	APA33M	Event & Facilities Management in Sport	Pres	3	-
	APA33R	Exercise Prescription	Pres	3	APA20B
	APA33S	Physical Activity and Health	Pres	3	-
	APA33T	Sport Nutrition	Pres	3	APA20B
	APA33U	Environmental Exercise Physiology	Pres	3	APA20B
	APA33V	Experimental Biomechanics	Pres	3	APA10C
	APA33W	Biomechanical Modelling and Simulation	Pres	3	-
	APA33Y	Skill Acquisition: Theory to Practice	Pres	3	-
4	APA40C	Assessment in Physical Education and Sports	Core	2	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

APA10B Growth & Motor Development

The purpose of this course is to study physical growth and motor development, with particular emphasis during the growing years. Factors influencing physical growth and motor development, age-related changes, individual, gender-related and maturity-associated variations in growth and development and variations during pubertal growth period will be discussed. Modelling the principles and the processes underlying growth and motor development through physical activities in teaching physical education will also be discussed.

APA10C Anatomical & Biomechanical Foundations of Physical Activity

This course enables you to relate human anatomy to physical activities and to apply the principles of biomechanics to the teaching physical skills. Structural anatomy deals with the knowledge and an understanding of the bones, joints and muscle structure that produces movement. Biomechanics is the study of a biological system by means of mechanics. This course introduces the basic mechanical concepts and principles that govern human movement.

You will be introduced to qualitative and quantitative analyses of physical activities using basic concepts of mechanics and anatomy.

APA10D Inclusive Physical Activity & Sport

This course emphasises concepts related to the broad field of Physical Education (PE) and sport. It is an experiential course designed to introduce you to the world of PE, inclusive physical activity (IPA) and sports for individuals studying in the mainstream schools,

including those with special educational needs. It provides an overview of the disciplines that study the field's philosophical, historical, cultural, and sociological foundations and their applications to professional practice. This course examines Singapore's physical education/activities and sport infrastructure and their relationships in promoting inclusive participation in physical activities/sport from recreational to high performance levels. You will gain an overview of the various recreational and sporting activities available in Singapore and be introduced to the basic theoretical and practical knowledge for inclusiveness by adapting activities/ equipment appropriately to meet the unique needs of a variety of students, including those with special educational needs. Current issues on inclusive physical education/activities are also explored and discussed. Principles, guidelines, and strategies for activity instruction will be gleaned through hands-on participation, class discussions and personal reflections.

APA10E Theory & Practice of Basketball

This course aims to equip you with the knowledge and skills of Basketball so that you are able to demonstrate the techniques of the game, and to play a 3v3 half-court basketball game with appropriate rules. Analysis of video clips (IT) and sports science knowledge will be enlisted to facilitate the learning of technical skills, concepts, gameplay, and the rules of the game.

APA10G Theory & Practice of Football

This course is designed to provide you with the opportunity to develop your skills and game performance in football and acquire lesson ideas,

content development/progressions and teaching strategies for the teaching of football.

You will be introduced to developmentally appropriate teaching strategies/ models that develop their pupils into confident and active participants of the game. These approaches include Games Concept Approach (GCA), Constraints Led Approach (CLA) and Sport Education Model (SEM).

Relevant Sports Science knowledge behind effective skills and tactics, various game-specific assessment tools of skills and game performance as well as the use of information technology (IT) will also be introduced.

APA10H Theory & Practice of Volleyball

The aim of this course is to introduce you to the key elements involved in playing the game of Volleyball at the primary / secondary level. You will then be able present important concepts, skills and strategies to their primary / secondary classes, sometimes in the form of modified games. The course will also provide ideas on presenting skills through adequate demonstration. Analysis of video clips (IT) will be used to introduce elements of style or form and to explain the rules of the game. The rules may subsequently be modified to suit the class. Sport science knowledge will be enlisted to facilitate the learning of technical skills and game play. Game–specific assessment tools will be introduced.

APA20A Foundations of Psychology & Motor Learning in Physical Activity

This is an introductory course on sport and exercise psychology as well as motor learning. Specifically, the course will focus on topics and issues related to the

social psychological variables that influence participation in physical activities, the environments in which sport and exercise participants operate, and selected outcomes of such participation. This course also introduces student teachers to some of the theories and practices associated with skill acquisition. The focus is specifically on how the individual develops, learns, and performs motor skills. Student teachers will be introduced to these major concepts through a series of lectures, readings, and laboratory exercises.

APA20B Physiology of Exercise

The aim of this lecture- and laboratory-based foundation course is to equip you in Physical Education (PE) with an understanding of fundamental human and exercise physiology. This will enable you to design safe and effective lessons or training for 1) students during PE lessons and 2) student-athletes gearing for sports performance.

APA20C Sports Injury Prevention and Management in PE and Youth Sport

This course aims to provide you with the fundamental understanding and knowledge on the risk factors, causes, types and patterns of injuries with specific emphasis on Physical Education (PE) settings in primary / secondary schools. It also includes knowledge application and skill development on the principles and strategies of injury prevention and management in PE and youth sport.

APA20D Theory & Practice of Softball

The aim of this course is to introduce you to the key elements involved in playing the game of softball at the primary / secondary level. You will then be able

present important concepts, skills and strategies to their primary / secondary classes, sometimes in the form of modified games. The course will also provide ideas on presenting skills through adequate demonstration. Analysis of video clips (IT) will be used to introduce elements of style or form and to explain the rules of the game. The rules may subsequently be modified to suit the class. Sport science knowledge will be enlisted to facilitate the learning of technical skills and game play. Game–specific assessment tools will be introduced.

APA20E Theory & Practice of Floorball

The aim of this course is to introduce you to the key elements involved in playing the game of floorball at the primary / secondary level. Through a series of modified games, you will be able to deepen your understanding of the various game concepts in territorial invasion games. Sport science knowledge will be enlisted to facilitate the learning of technical skills and game play. Video clips will be used to provide you with hands-on opportunities to analyse skill and/or game performance using appropriate tools. Game–specific assessment tools will also be introduced in this course.

APA30A Theory & Practice of Badminton

This course as one of net barrier games is designed to provide you with the opportunity to develop movement skills, techniques and strategies required in badminton. This course also intends to introduce developmentally appropriate lesson ideas, skill contents, rules and teaching strategies for the teaching of badminton in primary / secondary schools.

You will also be exposed to the relevant Sports Science knowledge underlying the effective teaching

or learning of the technical and tactical skills in badminton. Various game-specific assessment tools of skills and game performance as well as the use of information technology (IT) will also be introduced.

APA33C Psychology of Physical Education & Sport

The course is designed to provide you with an understanding of how psychological variables influence participation in physical activity. The focus is on the key motivational perspectives of exercise and sport. Advanced topics such as children in sport, burnout, and psychology of injury will also be covered. This course will provide you with a solid foundation in exercise and sport psychology that can be applied to promoting behavioural changes in sport and exercise settings.

APA33E Sociology of Sport

This course is designed to cover a body of knowledge in the sociology of sport and think sociologically about Physical Education (PE) and sports. It introduces you to the societal issues of PE and sports in the respective countries and develops your critical thinking and analytical skills based on observing documentary evidence and doing fieldwork so you will be able to learn how to evaluate and compare sports in respective locations.

This course also examines the cultural elements of the development of PE and sports in society today with a Singaporean perspective and international comparisons. Diverse social phenomena relating to PE and sports that are experienced in the real world using sociological imagination will be introduced. The use of theoretical framework to undertake the course is also relevant to broader lifelong education objectives.

APA33G Management of Sport Organisations

This course uses the essential topics and concepts of organizational theories and behaviours to understand the underlying objectives and perspectives of managing sport organizations. Student teachers will develop broad understanding of the nature of sport organizations, structure, design, planning, problem solving/decision making, and other various issues in managing sport organizations.

APA33K Applied Psychology of Physical Education & Sport

This is an applied sport psychology course targeted at student teachers who want to consider psychological skills training (PST) as a useful tool for enhancing sport performance. The student teachers will be equipped with the knowledge and strategies to deliver PST to athletes. In this course, student teachers will be introduced to the role of applied sport psychologist; the development, implementation, and evaluation of PST; and theories underpinning each psychological skill. This course will be both theoretical and practical based.

APA33M Event & Facilities Management in Sport

This course is designed to assist student teachers in gaining a basic understanding of sport facilities / venues in relation to planning, designing, constructing, maintaining, and scheduling. Student teachers will be exposed to several financial strategies used in facility planning / development as well as risk management and safety concerns when operating sport venues and events. In addition, student teachers will learn several factors involving in managing sporting events such as location, revenue, promotion, and developing successful sport sponsorship plans.

APA33R Exercise Prescription

The objectives of this applied exercise physiology course are to know 1) the role of exercise and physical activity for health as an intervention to prevent and/or manage chronic health conditions and 2) the exercise prescriptions for select chronic health conditions.

APA33S Physical Activity and Health

The aim of this course is to examine how physical activity and inactivity can prevent and manage a number of the most common non-communicable diseases affecting society. The course is designed for undergraduate physical education sport science students. The course examines the various methods for the assessment of physical activity and the evidence for impact of physical activity and inactivity on the advancement or prevention of lifestyle diseases. Laboratory and activity sessions provide hands-on opportunities to examine these topics at hand.

APA33T Sport Nutrition

The aim of this course is to examine the role of nutrition in supporting the physical and mental performance, growth, and health and fitness of athletes. The course is designed to be an upper level course for undergraduate sport science students. It will cover a range of content related to the energy requirements of athletes, the role of individual macronutrients in assisting performance and growth, the use of micronutrients in supporting athletic health, evidence related to the intake and use of nutritional supplements, the role of sports drinks for athletic performance, eating disorders among athletes, and nutrition to support immune function. Laboratory sessions will provide hands-on opportunities to

examine some of these topics and guest lectures/visits will support the lecture material.

APA33U Environmental Exercise Physiology

The aim of this course is to examine the role and challenges the environment plays in sport. The course is designed to be an upper-level exercise physiology module for undergraduate sport science students. The course will introduce you to the physiological adaptations and challenges faced by athletes across the entire spectrum of environments including heat, cold, altitude, pollution, underwater and in response to microgravity and bed rest. Strategies to overcome these challenges will be examined. Laboratories will provide hands-on opportunities to examine some of these challenges and guest lectures/visits will support the lecture material.

APA33V Experimental Biomechanics

This course will focus on experimental biomechanical techniques and quantitative methods to analyse human motion. Through lectures and laboratory work, you will have the opportunity to collect experimental data using biomechanical instrumentation such as gait analysis system, instrumented treadmill, isokinetic dynamometry, motion analysis, electromyography, and pressure systems. The aim of the course is to develop your ability to conduct biomechanical analysis independently and to critically evaluate research findings.

APA33W Biomechanical Modelling and Simulation

This course focuses on the biomechanical analysis of human locomotion using modelling and simulation techniques. The topics covered will familiarize you with the development and analysis of biomechanical

models to simulate motion. The purpose of the course is to develop your ability to conduct biomechanical analysis independently and to apply the knowledge in teaching and coaching.

APA33Y Skill Acquisition: Theory to Practice

The aim of this course is to provide students with a sound understanding of the development of motor skills over time and knowledge to develop practical skills in designing practice sessions for physical education. The course will focus on the central questions of why, when, and how movements become coordinated over time by way of reflecting on current theories and research. In particular, this course will adopt the dynamical systems theory as the main paradigm to investigate coordination between limbs (intrapersonal) and between individuals (interpersonal). Topics related to movement variability, sports expertise, visual perception, degrees of freedom, talent development, and specific practical strategies related to skill acquisition will be covered.

APA40C Assessment in Physical Education and Sports

Assessment is an integral part of the teaching of Physical Education (PE) in Singapore. This course provides understanding of the basic understanding of aims and purpose of assessment in physical education; its guiding principles and approaches, and equipping teachers with skills and knowledge to design and employ basic assessment tools and strategies in the teaching of physical education to help students' learning (assessment for learning) and for summative reporting as recommended by MOE Singapore.

ACADEMIC DISCIPLINE: PHYSICS & ENERGY STUDIES

Table 1: AD Major Structure for Bachelor of Science in Physics & Energy Studies and Education (Primary / Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAP10A	Mechanics with Laboratory	Core	3	-
	AAP10B	Thermal Physics with Laboratory	Core	3	-
	AAP10C	Electricity and Magnetism with Laboratory	Core	3	-
	AAP10D	Optics & waves with Laboratory	Core	3	-
2	AAP20A	Modern Physics	Core	3	AAP10D
	AAP20B	Electromagnetism	Core	3	AAP10C
	AAP20C	Quantum Mechanics	Core	3	AAP10A, AAP10D
	AAP20D	Electronics	Core	3	-
	AAP20E	Physics Laboratory I	Core	3	-
	AAP20G	Solid State physics	Core	3	AAP10B
3	AAP30A	Lasers and Photonics	Core	3	AAP20A, AAP20B, AAP20C
	AAP30B	Physics Laboratory II	Core	3	-
	AAP30C	Semiconductor Physics and Devices	Core	3	AAP20G
4	AAP40A	Nuclear Physics	Core	3	AAP20A, AAP20C
	AAP40B	Plasma Physics and Nuclear Fusion	Core	3	AAP10B, AAP20A
	Select any 1 elective				
	AAP43D	Molecular Physics	Pres	3	AAP20C
	AAP43C	Nanoscience	Pres	3	AAP20G

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAP10A Mechanics with Laboratory

This course aims to develop the student teachers' conceptual understanding of the core concepts in classical mechanics, and a familiarity with the experimental verification of laws of mechanics. Student teachers will gain the ability to describe and predict the motion of bodies. This foundational first year course is essential for further studies in physics.

AAP10B Thermal Physics with Laboratory

This course aims to develop your knowledge and understanding in thermal physics as well as your skills in laboratory work. This course is for the BSc physics student teachers who aims to pursue a career in teaching and research. This foundational first year course is essential for further studies in physics.

AAP10C Electricity and Magnetism with Laboratory

This course aims to develop your knowledge and understanding of Electricity and Magnetism, which is a very fundamental topic for physics. This course will also foster skills in laboratory work. This course is for BSc Physics student teachers who want to have a career in teaching and research. This foundational first year course is essential for further studies in physics.

AAP10D Optics & waves with Laboratory

This course aims to develop your knowledge, understanding in optics and waves and your skills in laboratory work. This course is for the BSc physics student teachers who intends a career in teaching and research. This foundational first year course is essential for further studies in physics.

AAP20A Modern Physics

This course aims to develop your knowledge and understanding of Modern physics, which marks the beginning of advanced topic for physics like quantum mechanics. This course is for BSc Physics student teachers who want to have a career in teaching and research. This course builds on the foundations of classical physics.

AAP20B Electromagnetism

This course aims to develop your knowledge and understanding of Electromagnetism, which is a very fundamental topic for physics. This course is for BSc Physics student teachers who want to have a career in teaching and research. This second-year course builds on the foundations of the first-year electricity and magnetism course and is essential for further studies in physics.

AAP20C Quantum Mechanics

This course is the first introductory course to quantum mechanics. The course aims to equip student teachers with knowledge on the relevant tools to appreciate and understand the microscopic world through quantum theory.

AAP20D Electronics

This course aims to develop your knowledge and understanding of Electronics, which is a very useful topic not just for physics, but also many aspects of present day computing, engineering and digital technology. The course covers the fundamentals of analogue electronics, digital electronics, and microcontrollers. This course will also foster skills in laboratory work. This course is for BSc Physics student teachers who want to have a career in teaching and research. This second-year course is essential for further studies in physics.

AAP20E Physics Laboratory I

This course aims to develop your skills in conducting various physics experiments. This course is for BSc Physics student teachers who want to have a career in teaching and research. Experiments conducted in

this course will be based on a broad range of physics covered in years 1 and 2.

AAP20G Solid State physics

The aim of this course is to give student teachers knowledge, understanding and applications of solid state physics. The course covers the understanding of matter in its solids state. Topics include the bonding in solids, crystalline structure, defects in crystalline solids, quantum theory of solids, mechanical, thermal, electrical and optical properties of matter with a special emphasis on semiconducting materials.

This course is for BSc Physics student teachers who want to have a career in teaching and research.

AAP30A Lasers and Photonics

This course aims to develop your knowledge and understanding of lasers and photonics. This is an advanced topic and allows you to develop your knowledge in physics by applying basic concepts to more complex situations. This course is for BSc Physics student teachers who want to have a career in teaching and research. This course builds on the foundations from basic and intermediate topics like optics, waves, electromagnetism quantum mechanics and modern physics.

AAP30B Physics Laboratory II

This course aims to develop your skills in conducting various physics experiments. This course is for BSc Physics student teachers who want to have a career in teaching and research. Experiments conducted in this course will be based on a broad range of physics covered in years 1-3.

AAP30C Semiconductor Physics and Devices

The aim of this course is to give you knowledge, understanding and applications of semiconductor physics and devices, including the energy bands of semiconductors, doping and carrier concentrations. Carrier Transport Phenomena, Hall Effect. Semiconductor devices: Physics of P-N Junction, semiconductor solar cells, diode, transistor, MOSFET, LED and lasers. Semiconductor device processing.

This course is for BSc Physics student teachers who want to have a career in advanced teaching and research.

AAP40A Nuclear Physics

Nuclear Physics is a very fundamental branch of physics, and this course aims to develop your knowledge of this topic, along with a general understanding of the range of nuclear physics applications in other fields such as medicine, energy, and technology. This course is for BSc Physics student teachers who want to have a career in teaching and research. This fourth year course builds on foundational material covered in the Modern Physics and Quantum Mechanics courses studied in previous years. This course will be particularly valuable for further studies in areas such as Nuclear Energy, Nuclear Medicine, Medical Imaging, and Earth Sciences.

AAP40B Plasma Physics and Nuclear Fusion

This course aims to develop your knowledge and understanding of plasma physics and nuclear fusion. This is an advanced topic and allows you to develop your knowledge in physics by applying basic concepts to more complex situations. This course is for BSc

Physics student teachers who want to have a career in teaching and research. This course builds on the foundations from basic and intermediate topics like thermal physics, electricity and magnetism, and modern physics.

AAP43D Molecular Physics

Molecular physics is a very fundamental branch of physics, and this course aims to develop your knowledge of this topic, along with a general understanding of the range of molecular physics applications in other fields such as atmospheric physics, medicine, energy, and technology. This course is for BSc Physics student teachers who want to have a career in teaching and research. This fourth year course builds on foundational material covered in the quantum mechanics courses studied in previous years. This course will be particularly valuable for further studies in areas such as molecular spectroscopy, atmospheric physics, plasma science and material sciences.

AAP43C Nanoscience

This course aims to develop your knowledge and understanding of fundamentals of Nanoscience. Topics include: Size dependent phenomena, nanoscaled system, electron configuration in atom, atom arrangement; basic Quantum Mechanics, particle in box, quantum dots, quantum wires and quantum wells; physics of low dimensional materials, the free Fermi gas, density of state. Effects of nanometer scale length: role of surface at nanoscale length; effect of nano- dimensions on the systems' total energy, structure and many physical (structural, mechanical, thermal, magnetic, optical and electronic) and chemical properties. Nanoparticles: tetrahedrally

bonded semiconductor structures. Properties of individual nanoparticles: metal nanocluster; semiconducting nanoparticles, magnetic nanoparticles. Methods of synthesis of nanomaterials: Carbon nanostructures and their applications. Introduction and preparation of quantum nanostructures; Nanoscience for biological systems. Nanomachine and Nanodevices: MEMSs and NEMSs. Characterization methods in nanoscience: fundamental of various microscopic tools of for visualization of nanoscale materials such as scanning and transmission electron microscopy, scanning tunnelling microscopy and atomic force microscopy.

ACADEMIC DISCIPLINE: TAMIL STUDIES

Table 1: AD Major Structure for Bachelor of Arts in Tamil Studies and Education (Primary / Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAK10A	History of Tamil Literature	Core	3	-
	AAT10A	History of Tamil Nadu and Culture	Core	3	-
	AAT10B	Tamil Grammar 1 (Nannul Eluthu)	Core	3	-
	AAT10C	Tamil Phonology and Morphology	Core	3	-
	AAT10D	Tamil Grammar 2 (Nannul Col)	Core	3	-
	AAT10E	Tamil Syntax and semantics	Core	3	-
2	AAT20B	Tamil Language and Folklore Literature	Core	3	-
	AAT20C	Applied Linguistics in Tamil Language	Core	3	-
	AAT20D	Grammar of Tamil Poetic (Yappu and Ani)	Core	3	-
	AAT20E	Tamil Language and Children Literature	Core	3	-
3	AAK30B	Modern Literature (Poetry)	Core	3	-
	AAK30C	Tamil Literary Criticism	Core	3	-
4	AAK40A	Singapore Tamil Literature	Core	3	-
	AAT40A	Tamil Diaspora Social Life and Language Use	Core	3	-
	AAT40D	Modern Tamil Literature (Prose)	Core	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAK10A History of Tamil Literature

This course aims to provide a deeper understanding of the history of Tamil Literature and its various special features and values. You will also learn about the birth and the development of Tamil literature from the ancient Sangam to the current post-modern period. You will be able to understand the chronological order of the Tamil literary movements such as Sangam, Epic, Minor literature, contributions of Jain and Buddhist influences and the modern Tamil language. When learning about the various eras in the Tamil Literary history, you will also learn how to appreciate its content, the literary movements, the language, the society, the country and the world. Hence, you will learn suitable literary skills and the thought processes

of three major forms of Tamil language i.e., Prose, Poem and Drama. You will be able to acquire new knowledge and awareness on literature and deepen critical thinking.

AAK30B Modern Literature (Poetry)

You will have a deeper understanding of Modern Literature, its brief history and the different genres of poems written by modern day poets. You will also learn selected poems from the works of notable poets such as Bharathiyaar, Bharathidhasan, Kannadhasan, Vaanidhaasan, and etc. You will study the changes in writing styles of various poets over the different periods in time, and also the changes in themes of poems created - from devotional poems, to modern day poets writing on all aspects of life. In particular, you will study about Bharathiyaar's revolutionary-themed poems, Bharathidhaasan's poems which created reformed thoughts among people and Vaanidhaasan's poems which highlighted the aesthetic nature and works of other poets.

AAK30C Tamil Literary Criticism

This course allows you to have a broader knowledge on Literary Criticism, by giving you a brief introduction on the course, its format, and its different forms. The importance and the role of Literary Criticism in Tamil Literature is also being analysed. Literary criticism comes in various forms such as comparative, appreciative and factual criticism. The course further analyses the critic, his qualities, literary skills and how it is reflected in short stories, poetry, novels, etc. and the challenges he faces.

AAK40A Singapore Tamil Literature

This course provides an overview of the growth and development of Singapore Tamil Literature. It will cover the brief history of Singapore Tamil literature and how it has addressed social issues faced by the Tamil community over the years. This will also allow you to know about the struggles and the rise of the early Tamil settlers. You will read and analyse the poems written by writers such as Ulaganathan, Singai Mugilan, Paranan, and others. You will be studying short stories, novels and drama written by Ma. EllanKannan, Rama Kanabiran and P. Krishnan.

AAT10A History of Tamil Nadu and Culture

This course will allow you to understand the history and culture of Tamil Nadu. You will learn about the history of Tamil Nadu and its landscape before the historical period – Lemuria (the lost continent). This course gives an overview of how the people of Tamil Nadu were connected with the rest of the world during the Sangam period along with the development of Tamil Language during this period. This course will also cover the rise and fall of successful Kings who ruled Tamil Nadu. You will also learn about the sociocultural issues and socio-economic status of the Tamils who lived from the 13th to 18th century.

AAT10B Tamil Grammar 1 (Nannul Eluthu)

The course aims to introduce Nannul (Tamil Grammar), its historical aspects and content. You will be introduced to phonetics and phonemics focusing on articulatory phonetics and the formation of consonant clusters. You will be introduced to word structures and subdivisions like base forms, suffixes and concepts of Morpho-phonemics. It will explain the order in which the letters appear in the Tamil alphabet; the birth and

duration of sounds, focusing on articulatory phonetics; the position of letters within a word (initial, medial and final); the formation of consonant clusters; divisible and indivisible words; subdivisions such as base forms and suffixes etc. Functional grammar and morphophonemic will also be covered through the following: combination of vowel finals; combination of consonant finals such as consonant finals before vowels; general combinations; special combinations; understanding of Sandhi in combinations.

AAT10C Tamil Phonology and Morphology

This course aims to explain the formation and organization of both the sounds and letters of the Tamil alphabet and also the study of words and how they are formed. It focuses on the concepts of phonetics and phonemics and its principles of contrastive distribution, allophonic distribution, free variation etc. It will explain the order in which the letters appear in the Tamil alphabet; the birth and duration of sounds, focusing on articulatory phonetics; the position of letters within a word (initial, medial and final); the formation of consonant clusters; divisible and indivisible words; subdivisions such as base forms and suffixes etc. Tamil is a classical language that has been in existence for centuries, leading to a vast range of vocabulary in the language. Over the course of time, new words have been formed and original words have changed in meaning and context. Phonological modifications have also taken place in the various areas that people live. Students will learn about etymology in Tamil Language; analyse the structure and parts of words, such as root words, prefix and suffix; understand the different types of words (Col) and verbs; differentiate words based on the context etc.

AAT10D Tamil Grammar 2 (Nannul Col)

The learning objectives of this course are to introduce the morphological structures of Tamil with reference to major grammatical categories. You will learn to identify, classify, and explain different types of noun base forms and suffixes in the formation of various grammatical sub-categories. You will also learn about the different types of verb base forms and suffixes. Phonological modifications have also taken place in the various areas that people live. You will learn about etymology in Tamil Language; analyse the structure and parts of words, such as root words, prefix and suffix; understand the different types of words (Col) and verbs; differentiate words based on the context etc.

AAT10E Tamil Syntax and Semantics

The course aims to broaden students' knowledge on the concepts of Syntax and Semantics. You will learn about the formation of simple, compound, and complex sentences in Modern Tamil. Through the course, you will be able to explain the formation, expansion and transformation of a sentence in Tamil. You will be introduced to the basic concepts of semantics with references to linguistic forms and concepts such as homonymy, synonymy, and polysemy. The role of syntax and semantics in the formation of simple discourse will be explained in detail. Two important concepts namely cohesion and coherency in discourse structure will also be introduced with reference to Tamil.

AAT20B Tamil Language and Folklore Literature

Student teachers will learn about folklore literature and its influence in our ancient and today's modern life. They will analyse lullaby, traditional festivals, culture

and customs, songs related to the stages of human life, proverbs and sayings in folklore literature in detail.

AAT20C Applied Linguistics in Tamil Language

The course aims to introduce the basic concepts of structural, descriptive, historical and comparative Linguistics. You will explore Modern Tamil Linguistics, its history and the status of Tamils in the Dravidian family and be equipped with the skills to apply linguistic areas such as Language teaching, etc. You will also deepen your understanding on the role of applied linguistic areas and methods related to language and society, language and culture, language and communication etc.

AAT20D Grammar of Tamil Poetic (Yappu and Ani)

The course aims to introduce poetics' grammar of Tamil with relevant components through Yaperunkala kaarigai. (1. Eluthu (letter), 2. Acai, 3. Ciir, 4. Talai, 5. Ati and 6. Todai with appropriate structure and illustrations). You will learn the concept of poetics and explain different types of poetry with illustrations (Aasiriyappa, Kalippa, Vanjippa and Venba). You will learn the main types of Anikal in Tamil through poetical and prose discourse. You will be introduced to selected types of Anikal, such as: 1. Thanmai ani, 2. Uvamai ani, 3. Uruvaga ani, 4. Siledai ani, 5. Tharkurippetra ani, 6. Vanja pugazhchi ani, 7. Kondu Koottu purulkol ani.

AAT20E Tamil Language and Children Literature

This course provides an overview of the growth and development of Tamil Children Literature. It will cover the brief history of children's literature and its various forms in India and Singapore. It will also explain the fundamentals in which Children's Literature was

written. You will read the contributions made by great writers such as A. Valliappa, N. Pazhanivelu, Illamaaran, Kuzha Kadhiresan, Poovannan and from selected storybooks, nursery rhymes and songs.

AAT40A Tamil Diaspora Social Life and Language Use

The course aims to introduce you to the historical background of Tamils in different diasporic communities. You will understand ways in which their language and culture were maintained and will be introduced to concepts for explaining the changes in Tamil language development. You will also learn about the lifestyle of migrated Tamils in different countries and understand their culture, customs, habits, as well as the changes found in the domains of their social life.

AAT40D Modern Tamil Literature (Prose)

The new course aims to deepen the students' knowledge to recognize and analyse the techniques used in the writing of Tamil novels, short stories, dramas. Student teachers will be able to specifically acquire pedagogical knowledge to teach modern prose like novels, short stories, dramas, prose works etc. In addition, student teachers will also be equipped to teach these forms of literature according to the classroom needs.

Education Major

Education Studies

Primary Track

Year	Course Code	Title	Course Category	No. of AUs
1	AED00C[#]	Professional Practice and Inquiry	Core	1
	AED10A	Educational Psychology I: Theories and Applications for Learning and Teaching	Core	2
	AED10G	Character and Citizenship Education in the Singapore Context	Core	2
2	AED20A	Teaching and Managing Learners at the Primary Level	Core	2
	AED20E	Designing Future-Ready Learning with Technology	Core	2
	AED20D	Assessing Learning and Performance	Core	1
3	AED30D	Supporting Diversity at the Primary Level	Core	1
	AED30E	Pedagogical Practices	Core	1

Secondary Track

Year	Course Code	Title	Course Category	No. of AUs
1	AED02C[#]	Professional Practice and Inquiry	Core	1
	AED10A	Educational Psychology I: Theories and Applications for Learning and Teaching	Core	2
	AED10G	Character and Citizenship Education in the Singapore Context	Core	2
2	AED22A	Teaching and Managing Learners at Secondary Level (Part 1)	Core	2
	AED20E	Designing Future-Ready Learning with Technology	Core	2
	AED20D	Assessing Learning and Performance	Core	1
3	AED30E	Pedagogical Practices	Core	1
	AED32B	Teaching and Managing Learners at Secondary Level (Part 2)	Core	1

[#] AED00C / AED02C spans the entire duration of the BA/BSc (Acad Dspln & Ed) programmes.

Top-Up Courses for Upgraders

The courses listed below are only meant for Dip Ed crossovers and returning teachers entering the BA/BSc (Acad Dspln & Ed) programmes who need to top up on AU requirements in order to meet the minimum number of AUs required for graduation.

Course Code	Title	Course Category	No. of AUs	Pre-requisites
AED23B	Introduction to Counselling Psychology	Pres	2	-
AED23C	Critical Reasoning Skills for Effective Teaching	Pres	2	-
AED23G	Critical and Creative Thinking	Pres	2	-

AED00C/ AED02C Professional Practice and Inquiry

This course provides student teachers with a foundation for understanding the process of integrating and aggregating their learning, being reflective and establishing the theory-practice connection in their practice. In particular, this course will provide avenues for students to:

i. explore and reflect on their professional beliefs,

ii. understand the process of inquiring into their practice, and

iii. articulate their growing understanding of what constitutes a 21st-century professional, pivoted on NIE's value-based V^3SK framework.

Through structured reflection and engagement with practice, student teachers are supported in constructing a coherent sense of professional self and articulating their evolving beliefs about teaching and learning.

Embedded within the PPI course is the use of a ***Digital Portfolio*** to facilitate student teachers' construction of their conceptual framework of learning. Supported by the Digital Portfolio, the course aids the aggregation and integration of students' learning from the various courses at NIE to prepare them for practice. During practicum, the Digital Portfolio facilitates students'

inquiry into their own practice with a focus on the Theory-Practice Nexus. In addition, students articulate their growing understanding of what constitutes professional practice in relation to NIE's Graduand Competency Dimensions.

AED10A Educational Psychology I: Theories and Applications for Learning and Teaching

This course provides the foundation for understanding 21st-century learners, learner development, and the psychology of learning and motivation. The ways in which these aspects influence the processes of learning will be considered, and proactive approaches to enhancing student motivation, learning, and thinking explored. Theories with a focus on students' psychosocial and cognitive development will be introduced and their implications for classroom-practice considered. In particular, the course will explore how students learn and the challenges they face in the process. Students' intellectual, social, emotional, personal, and moral development will be considered.

You will synthesize and consolidate the key concepts learnt to establish explicit theory- practice links and analyse issues in authentic classroom scenarios. This will enable you to leverage on the acquired theoretical knowledge to make theory-based decisions for enhancing teaching and the design of learning experiences.

AED10G Character and Citizenship Education in the Singapore Context

This course seeks to equip pre-service teachers with a deep appreciation of why Character and Citizenship Education (CCE) is central to education, what CCE encompasses, and how it can be effectively promoted

in schools. In addition to building professional knowledge and pedagogical skills, the course is designed to support the development of teacher identity by guiding pre-service teachers to reflect on and shape their values, beliefs, and professional roles as CCE educators.

You will explore the "What, Why & How" of CCE, engaging with core concepts and examining their relevance to your emerging professional identity. Through interactive discussions, case studies, and experiential activities, you will learn to apply effective pedagogical principles and strategies for teaching and learning in CCE. The course will also develop your capacity to design and facilitate meaningful CCE learning experiences that foster students' growth, while providing structured opportunities for reflection on how these practices align with your evolving sense of purpose as educators.

AED20A Teaching and Managing Learners at the Primary Level

Mainstream primary schools in Singapore attend to students of diverse backgrounds, needs, and abilities across their different stages of development, underscoring the need for effective classroom management to support meaningful learning in the classroom. This requires application of relevant classroom management approaches and practices to understand and guide students' behaviour, foster their active engagement, and promote their social and emotional growth.

This course aims to equip student teachers with knowledge and skills in managing learning and behaviour of students in order to establish a safe, inclusive and supportive classroom environment.

Emphasis will be placed on the theory-practice link to strengthen competencies of student teachers with respect to handling classroom management challenges. Student teachers will also reflect critically on how they can appropriate for themselves, key guiding principles and classroom management strategies which they can adapt for their own practices in working with diverse learners in our local primary context.

AED20E Designing Future-Ready Learning with Technology

This course is designed to equip you with the knowledge and skills to design meaningful, technology-enhanced learning experiences that develop future-ready learners. You will learn to thoughtfully integrate content, pedagogy, and technology to create impactful and innovative lessons for diverse classroom settings.

Specifically, the course aims to enable you to:

- Analyse and apply 21st Century Quality Learning characteristics and e-Pedagogy to design technology-enhanced lesson design. This includes exploring how digital technological tools, particularly Generative AI (Gen AI), can be used to innovate teaching, activate prior knowledge, personalise learning, and foster collaboration, reflection, and deeper understanding of teaching subject contents.
- Integrate cyber wellness and other ethical considerations into all phases of lesson design, promoting the safe and responsible use of technology in classrooms. You will examine issues related to Gen AI, such as academic integrity, bias, and digital citizenship, to ensure equitable and reflective learning environments.

- Demonstrate practical competency by designing, implementing, and critically reflecting on innovative learning activities. This includes creatively applying Gen AI for teaching, learning, and assessment to develop engaging, tech-mediated differentiated strategies that empower active, ethical, and future-ready learners, in alignment with Singapore's EdTech Masterplan.

AED20D Assessing Learning and Performance

This course provides participants with the ability to understand and apply the basic principles of educational assessment. The course will discuss the principles of educational measurement of learning. It aims to equip future teachers with the necessary knowledge and skills to monitor, appraise and evaluate learners' content knowledge, progress, and performance achievement. This course will cover traditional paper and pencil testing methods and performance-based, authentic assessment procedures. The course will also include using assessment to promote learning and instruction.

AED22A Teaching and Managing Learners at Secondary Level (Part 1)

Teaching is a complex endeavour that requires understanding of real-life critical classroom management issues and challenges, and the ability to apply appropriate strategies to address these issues and challenges. Hence, it is pivotal that student teachers are made aware of the extent and type of classroom management challenges that schoolteachers may face. They need to acquire relevant classroom management skills in order to effectively accommodate their students' differentiated learning needs and abilities across different stages of

development. This will help them demonstrate skilful decision-making and apply appropriate strategies to address these challenges.

AED23B Introduction to Counselling Psychology

This experiential course is intended to provide a general introduction to the practice of counselling psychology. This course will explore the role and function of school counsellors, and the teacher as a skilled helper. The characteristics of good skilled helpers, conditions for an effective counselling relationship and techniques of interviewing troubled students will be practiced in in-class roleplays. Students will also gain a deeper understanding of counselling from a client's perspective, when they participate in six hours of individual personal development sessions with an assigned trainee counselling psychologist at the NIE Wellness Centre.

AED23C Critical Reasoning Skills for Effective Teaching

The course will equip you with a broad range of critical reasoning skills to develop the thinking and analytical abilities of your pupils in schools. Critical reasoning or thinking is based in part on mastery of basic rules of elementary logic, as well as practical reasoning skills. These skills are used for the analysis and evaluation of situations and arguments, as well as the formulation and articulation of good arguments and judgments. By learning how to formulate and articulate good arguments, you will acquire an appreciation of how these critical thinking skills can be used to facilitate multi- and inter-disciplinary learning in your teaching. Working in groups, you will design innovative lessons and workshops in diverse professional settings that

would help to stimulate interest in critical thinking and problem solving among your target audience.

AED23G Critical and Creative Thinking

This course enables student teachers to understand the phenomenon of thinking from simple to complex, from concrete to abstract, and from logical to intuitive. Student teachers will learn to develop thinking and pedagogical skills and be able to deploy curriculum materials to help students to think critically and creatively at a progressive pace, with the aims of developing greater depth and breadth in thinking. In addition, the course intends to develop analytical and imaginative thinking skills for real-life problem solving by linking theories to practice in the educational and psychological domains.

AED30D Supporting Diversity at the Primary Level

Student diversity in terms of different backgrounds, needs, and abilities reflects the reality of today's classroom in our Singapore context. Hence the primary classroom is a complex environment, and requires a teacher that has the knowledge, skills and predispositions to understand and meet the different needs of their students sensitively and effectively. Such a scenario encapsulates an inclusive classroom concept.

The thrust of this course is to consolidate student teachers' understanding of student diversity, and the application of relevant strategies to support students in their learning and development. Drawing from their course learning from the various educational studies courses and authentic learning experiences from their practicum attachment, this course is primarily targeting at strengthening the theory-practice link to further

equip student teachers to handle the challenges posed by a classroom of diverse learners.

AED30E Pedagogical Practices

This course aims to develop student teachers' professional attributes, skills and knowledge that are characteristic of effective teachers. You will learn about the Singapore Teaching Practice (STP) model that makes explicit how effective teaching and learning is achieved in Singapore schools. You will explore the four teaching processes, looking specifically at lesson preparation, lesson enactment, assessment and feedback, and positive classroom culture. This course will provide you with opportunities to critically reflect upon these teaching processes in order to be better prepared in making the theory-practice connections for your first teaching practicum stint.

AED32B Teaching and Managing Learners at Secondary Level (Part 2)

AED32B, Teaching and Managing Learners at the Secondary Level (Part 2), is a course that all student teachers go through as part of their initial teacher preparation at the National Institute of Education. This course aims to equip you with relevant classroom management skills and pedagogical approaches to effectively accommodate your students' different learning needs, appealing to learners of various needs and abilities across their different stages of development. By the end of the course, you will be aware of the knowledge, skills and attitudes required in managing the diverse learners in their classrooms. The main focus of this course is to consolidate your understanding of your role as an beginning teacher, the learning environment and approaches for managing diverse learners, and the application of

relevant strategies to support the learners in their learning and development. To emphasise on the theory-practice link to strengthen your competencies with respect to classroom management challenges, the course includes a component, which requires you to experience and heighten your awareness of authentic classroom situations from your practicum attachment.

Practicum

Teaching Practicum is a very important component of the degree programme. Student teachers will apply their knowledge and skills for the teaching subjects they are trained in and develop their teaching competencies in a variety of instructional contexts and at different levels under the guidance and supervision of cooperating teachers (CTs), school coordinating mentors and university lecturers. They will learn from experienced school mentors about the schooling process and prepare themselves for their roles and responsibilities in teaching.

The Practicum is developmental in nature. It comprises four school attachment periods, i.e., School Experience (SE), Teaching Assistantship (TA), Teaching Practice 1 (TP1) and Teaching Practice 2 (TP2).

Course Code	Title	Course Category	No. of AUs	Pre-requisites
APR10A	School Experience	Core	0	-
APR20A	Teaching Assistantship	Core	3	APR10A
APR30A	Teaching Practice 1	Core	5	APR20A
APR40A*	Teaching Practice 2	Core	10	APR30A

* APR40A Teaching Practice 2 is recognised as a course to fulfil Inter-Major requirements. Please see section on Inter-Major Courses for more details of APR40A.

APR10A School Experience

This is 2 weeks long, with 1 week in a primary school and 1 in a secondary school. This is to provide student teachers opportunities to observe lessons in the primary and secondary classrooms. A set of SE tasks will be given to help foster theory-practice links.

APR20A Teaching Assistantship

Next, the student teachers will undergo a 5-week TA stint in accordance with their primary/secondary specialisation track. A set of weekly TA tasks will guide them in observing their CTs teach, engage in weekly conversations with their CTs and to make theory-

practice links in their reflections. They will also be given the practical experience of helping their CTs plan lessons, prepare resources, manage pupils and to do some assisted teaching.

APR30A Teaching Practice 1

The third component of the Practicum is the 5-week Teaching Practice 1, which is to help the student teachers observe, reflect and gain practical teaching experience. They will be provided opportunities to observe their CTs' lessons. Eventually they will learn to help their CTs plan lessons, prepare resources, manage pupils, and assist their CTs in some guided teaching.

Curriculum Studies

This area of study covers subject-specific teaching methodologies and pedagogical skills appropriate to either the primary or secondary school level in the Singapore context. The choice of Curriculum Studies (CS) is based on the student teachers' teaching level (primary or secondary) and teaching subjects.

Primary Track	
General	Any 2 CS subjects from o Art o English Language o Mathematics o Music o Science o Social Studies
Chinese Studies specialisation	CS1: Chinese Language CS2: Character and Citizenship Education (Chinese)
Malay Studies specialisation	CS1: Malay Language CS2: Character and Citizenship Education (Malay)
Tamil Studies specialisation*	CS1: Tamil Language CS2: Character and Citizenship Education (Tamil) and Tamil Literature
Sport Science Specialisation	CS1: Physical Education CS2: Any CS subject (if not selected as CS1): o English Language o Mathematics o Music o Science o Social Studies

Secondary Track	
General	Student teachers will read 2 CS subjects aligned with the choice of Academic Disciplines chosen. CS1 will align with AD Major while CS2 will be aligned with AD Minor. For a full list of AD subjects, see section on Academic Disciplines.
Chinese Studies specialisation	CS1: Chinese Language CS2: Chinese Literature
Malay Studies specialisation	CS1: Malay Language CS2: Malay Literature
Tamil Studies* specialisation	CS1: Tamil Language CS2: Character and Citizenship Education (Tamil) and Tamil Literature
Sport Science specialisation	CS1: Physical Education CS2: *aligned with AD Minor*

* Student teachers reading Tamil Studies will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

The Teaching of Art (Primary)

Table 1: CS1 Art Structure for Bachelor of Arts in an Academic Discipline and in Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACA20A	Concepts and Practices in Art Education	Core	3	-
3	ACA30A	Children and Adolescent's Artistic Development and its Implications for Teaching	Core	3	-
4	ACA40A	Teaching of Art in the Classroom	Core	3	-
	ACA40B	Curriculum and Assessment in Art	Core	3	-

Table 2: CS2 Art Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACA20A	Concepts and Practices in Art Education	Core	3	-
3	ACA30A	Children and Adolescent's Artistic Development and its Implications for Teaching	Core	3	-
4	ACA40A	Teaching of Art in the Classroom	Core	3	-

ACA20A Concepts and Practices in Art Education

The course examines how art education has evolved over time. Issues that arise from these changes and developments will be discussed. You should take this course so that you will be acquainted with the various ideas associated with art education. With the knowledge, you will reflect upon your own practices as a future art educator and relate these ideas and your role as an art educator to the past, present and future of art education.

ACA30A Children and Adolescent's Artistic Development and its Implications for Teaching

This course introduces classical and contemporary theories of children and adolescent development in the

visual arts. It will help you understand the various theoretical frameworks and how these underpin particular approaches to pedagogy and classroom practices. You will learn to design meaningful art experiences for children based on these understandings to promote learning in art. You will also gain an in-depth understanding of the centrality of meaningful art engagements to the development of the whole person – specifically in the areas of artistic and aesthetic maturation and creative growth.

ACA40A Teaching of Art in the Classroom

This course demands student teachers to bring together learning from other courses in designing art lessons for the classroom. Student teachers will learn about key considerations when designing lessons such as writing lesson objectives, selecting appropriate activities to facilitate the implementation of lesson and evaluation of students' learning. Student teachers will be able to critically analyse their own lessons and reflect to make their works better.

ACA40B Curriculum and Assessment in Art

The course introduces you to basic theories and practices in curriculum design and assessment practices in art. The course also prepares you to be familiar with MOE's primary art syllabuses. You will be able to design art programme which is in line with the national art syllabuses, specially the primary art syllabus. You should take this course so that you will be competent as an art educator in designing art programme for primary schools.

The Teaching of Chinese Language (Primary)

Table 1: CS1 Chinese Language Structure for Bachelor of Arts in Chinese Studies and Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACC20B	Curriculum Design and Development of Instructional Materials	Core	3	-
3	ACC30A	Teaching of Listening & Speaking	Core	2	-
	ACC30B	Teaching of Reading & Writing	Core	2	-
	ACC30C	Planning and Developing Language Lessons	Core	2	-
4	ACC40A	Student-centered Language Learning Strategies & Activities	Core	3	-
	ACC40B	Language Testing	Core	3	-

ACC20B Curriculum Design and Development of Instructional Materials

This course aims at providing a systematic, practical and comprehensive overview of the key stages and activities involved in developing, managing and evaluating a sound, rational and effective Chinese language (CL) programme, through the detailed analysis of, and discussion on the current mainstream CL syllabus and global CL instructional materials. Topics to be covered include: fundamental theories in the fields of curriculum design, material development and evaluation; basic elements of a curriculum, namely, objectives, content, organization and evaluation; materials adaptation and development; materials evaluation and selection.

ACC30A Teaching of Listening & Speaking

This course examines the theoretical principles and micro-skills involved in the teaching of listening and speaking from both the receptive and productive perspectives. Topics include: philosophy underlying the teaching of listening and speaking; listening and the teaching of receptive skills; designing and

developing listening tasks; speaking and the teaching of productive skills; designing and developing speaking tasks; an integrated approach to the teaching of the receptive and productive spoken skills.

ACC30B Teaching of Reading & Writing

This course examines the theoretical principles and micro-skills involved in the teaching of reading and writing from both the receptive and productive perspectives. Topics include: philosophy underlying the teaching of reading and writing; reading and the teaching of receptive skills; designing and developing reading tasks; writing and the teaching of productive skills; designing and developing writing tasks; an integrated approach to the teaching of the receptive and productive written skills.

ACC30C Planning and Developing Language Lessons

This course begins with an introduction of the different types of lessons in a typical CL programme, including grammar, vocabulary, reading comprehension, writing etc. You will then be guided systematically, through the use of case studies and sample lesson plans, to analyse learning needs and learning environment, delineate appropriate objectives, select or design appropriate content, sequence and assessment tools for each lesson type via pair-work and group collaborative learning. Video clips will be used to demonstrate to you effective methods and techniques of introducing, developing and concluding a lesson.

ACC40A Student-centered Language Learning Strategies & Activities

This course introduces you to language learning strategies and activities that are effective in promoting cooperative and collaborative learning, self-directed

learning and critical and creative thinking skills, with and without the support of ICT tools. You will be tasked to invent new strategies or make improvement to old ones and infuse these strategies into a Chinese language lesson that you have previously planned and developed, in alignment to the latest education trend.

ACC40B Language Testing

This course introduces the basic theory and practice of Chinese language testing and assessment. Topics include: principles and types of language testing and assessment; designing, developing and administering language tests; constructing test tasks for syntax, vocabulary, phonology and the Chinese script; constructing test tasks for listening, speaking, reading and writing skills; analysing and interpreting test statistics.

The Teaching of Character and Citizenship Education (Chinese) (Primary)

Table 1: CS2 Character and Citizenship Education (Chinese) Structure for Bachelor of Arts in Chinese Studies and Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACZ20A	Introduction to CCE: Content, Curriculum, Pedagogy & Assessment	Core	3	-
3	ACZ30A	Children's Literature & the Teaching of CCE	Core	3	-
4	ACZ40A	Teaching of CCE: From Classroom to School to Community	Core	3	-

ACZ20A Introduction to CCE: Content, Curriculum, Pedagogy & Assessment

This course provides an overview of the teaching of the Character and Citizenship Education (CCE) in Singapore schools. Topics include: the importance of CCE in relation to the Framework for 21st Century Competencies and Student Outcomes; core values, social & emotional competencies and skills related to citizenship competencies; components of CCE; syllabus and content of CCE lessons; process-based approaches to the teaching of CCE; assessment in CCE.

ACZ30A Children's Literature & the Teaching of CCE

This course aims to broaden your knowledge and understanding of Children's Literature. You will be exposed to various genres including poem, fairy tales, fables and legend and picture books. You will learn how to use these materials to design lesson and activities in Character and Citizenship Education lessons to enhance students' learning process.

ACZ40A Teaching of CCE: From Classroom to School to Community

This course equips you with the skills and knowledge to plan and implement school-based CCE curriculum. Through experiential learning and self-directed learning, you will have in-depth understanding of the different facets of whole school approach to CCE. You will be guided to design a lesson package to reinforce the learning of CCE outside regular curriculum time.

The Teaching of English Language (Primary)

Table 1: CS1 English Language Structure for Bachelor of Arts in an Academic Discipline and in Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACE20B	Teaching Reading and Writing in a Multilingual Context (Lower Primary)	Core	3	-
3	ACE30B	Teaching Reading and Writing in a Multilingual Context (Upper Primary)	Core	3	ACE20B or ACE20A
4	ACE40C	Teaching Speaking and Listening in a Multilingual Context (Lower and Upper Primary)	Core	3	ACE30B or ACE30A
	ACE40D	Approaches to Teaching English in a Multilingual Context	Core	3	ACE30B or ACE30A

Table 2: CS2 English Language Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACE20B	Teaching Reading and Writing in a Multilingual Context (Lower Primary)	Core	3	-
3	ACE30B	Teaching Reading and Writing in a Multilingual Context (Upper Primary)	Core	3	ACE20B or ACE20A
4	ACE40C	Teaching Speaking and Listening in a Multilingual Context (Lower and Upper Primary)	Core	3	ACE30B or ACE30A

Certificate in English Language & Linguistics Studies (CELS)

BA/BSc (Acad Dspln & Ed) (Primary) student teachers doing English Language as a Curriculum Studies (CS) subject but not reading English Language & Linguistics as an Academic Discipline Major are required by the Ministry of Education to do language enhancement courses leading to the Certificate in English Language Studies (CELS).

ACE20B Teaching Reading and Writing in a Multilingual Context (Lower Primary)

In this course, student teachers will learn about the social and psychological processes involved in children's beginning reading, writing, viewing, and representing of English in multilingual contexts. They

will learn how children acquire language at home and in school, so that they will be able to select and adapt teaching strategies that are appropriate for lower primary classrooms. Student teachers will learn various principles and processes of teaching and learning; in addition, they will be acquainted with and gain familiarity with the learning outcomes of the English Language Syllabus. They will also learn methods of monitoring and assessing beginning reading, writing, viewing, and representing. The evaluation, selection, and use of children's texts as resources for teaching reading and writing will also be covered on the course.

ACE30B Teaching Reading and Writing in a Multilingual Context (Upper Primary)

This course focuses on the theory and practice of teaching developing readers and writers of English in upper primary in the multilingual primary school. Student teachers will learn important theories and apply them as they develop their expertise in teaching children to read, view, write, and represent fiction, non-fiction, and multimodal texts. Through analysis and evaluation, student teachers will also learn how to select texts for classroom use. Student teachers will develop skills to teach grammar and vocabulary explicitly. Additionally, they will learn how to plan lessons that integrate grammar and vocabulary into reading, viewing, writing, and representing activities. They will become familiar with the principles and processes of teaching and learning and the relevant learning outcomes of the English Language Syllabus. The course will introduce assessment strategies for monitoring and analysing the developing reading, viewing, writing, and representing of upper primary pupils.

ACE40C Teaching Speaking and Listening in a Multilingual Context (Lower and Upper Primary)

This course focuses on teaching and assessing primary school children's speaking, representing, listening, and viewing in English. Student teachers will learn important theories about how spoken language is learnt in a multilingual context and its important role in children's thinking and learning. The course will help student teachers improve their abilities to reflect, analyse and synthesise as they draw on these theories to understand and plan practice. They will learn how to teach children to express themselves in individual presentations, to participate as group members, to pay attention, and to listen for a variety of purposes. Additionally, student teachers will learn to analyse, evaluate, and select materials to teach speaking, representing, listening, and viewing. Student teachers will deepen their understanding of the principles, processes, and outcomes of the English Language Syllabus, and they will learn how to plan assessment using a range of resources and technologies.

ACE40D Approaches to Teaching English in a Multilingual Context

This course aims to consolidate and extend student teachers' understandings of teaching English at the primary levels across the language skills (i.e., reading, writing, listening, speaking, viewing, and representing). Student teachers will explore approaches to teach language and literacy in a developmentally responsive and integrated way in order to meet the diverse needs of pupils in today's classrooms. They will be introduced to key approaches such as extensive reading and writing, academic or disciplinary language and differentiated instruction for the development of independent

readers and writers. In addition, student teachers will learn how grammar and vocabulary may be integrated into language learning activities to achieve better language outcomes. The course will also introduce student teachers to different methods of assessment. Throughout the course, student teachers will be shown how to evaluate and select texts out of the complete range of genres and modes created for children, for use in multilingual contexts.

The Teaching of Malay Language (Primary)

Table 1: CS1 Malay Language Structure for Bachelor of Arts in Malay Studies and Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACD20A	Foundations to Malay Language Teaching at the Primary Level	Core	3	-
	ACD20B	Teaching Oral Communication in Malay at the Primary Level	Core	2	-
3	ACD30A	Teaching Reading and Writing in Malay (Lower Primary)	Core	3	-
4	ACD40A	Teaching Reading and Writing in Malay (Upper Primary)	Core	3	-
	ACD40B	Teaching Malay Grammar at the Primary Level	Core	2	-
	ACD40C	Assessment in Malay Language Teaching	Core	3	-

ACD20A Foundations to Malay Language Teaching at the Primary Level

The course aims to equip student teachers with the knowledge and skills to integrate listening, speaking, reading and writing skills in the teaching of language. Student teachers will learn how to plan a Malay language lesson, integrate the various language skills and teaching strategies as well as taking note of the learning abilities and differences among learners. Knowledge on how to evaluate listening, speaking, and reading skills using a range of resources and strategies at both the lower and upper primary levels will be included. The reading and writing processes including process writing, as well as theoretical models and approaches to reading and writing instruction for lower and upper primary will also be emphasized. Student teachers will learn how to use various text types, including multimodal texts, in teaching reading and writing. They will also learn the use of multiliteracies in teaching reading and writing.

ACD20B Teaching Oral Communication in Malay at the Primary Level

This course aims to help student teachers develop expertise in teaching and assessing children's oral communication skills. Student teachers will learn how to teach children to express themselves in individual presentations as well as in collaboration with members in a group. The course provides guidance for designing authentic activities and meaningful tasks that promote oral language and communication skills in children through the use of a range of resources.

ACD30A Teaching Reading and Writing in Malay (Lower Primary)

This course aims to help student teachers develop the knowledge of processes and strategies to teach reading and writing at the lower primary level. It will equip them with an understanding of the five essential components of effective reading: phonemic awareness, phonics, fluency, vocabulary, and text comprehension. They will also learn how to assess emergent reading behaviours and meet the needs of diverse learners, and use children's texts and textbooks as resources for teaching reading and writing.

ACD40A Teaching Reading and Writing in Malay (Upper Primary)

This course will focus on the strategies for teaching developing readers and writers at the upper primary level. Student teachers will learn strategies for teaching the reading and writing of fiction, non-fiction and multimodal texts. They will learn methods of monitoring and assessing the reading and writing of upper primary pupils, and how to address the needs of diverse and struggling readers. The course also

provides guidance for evaluating and selecting texts for use in the upper primary classroom.

ACD40B Teaching Malay Grammar at the Primary Level

This course aims to help student teachers develop expertise in teaching grammar at the primary level. They will be familiarized with the role of grammar in syllabus text types and current textbooks. They will also be equipped with teaching guidelines, techniques and resources appropriate for young learners of different age groups to notice and speculate about how grammar 'works'.

ACD40C Assessment in Malay Language Teaching

This course aims to help student teachers reflect and synthesize all language knowledge and teaching skills that they have learnt in Years 1 to 4 and apply them in the crafting of assessment and evaluation tools. Their creativity and critical thinking are put to the challenge in this course through exploration, experimentation, and item analysis and rubric design.

The Teaching of Character and Citizenship Education (Malay) (Primary)

Table 1: CS2 Character and Citizenship Education (Malay) Structure for Bachelor of Arts in Malay Studies and Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACV20A	Teaching of Character and Citizenship Education (Malay) (Lower Primary)	Core	3	-
	ACV20B	Teaching of Character and Citizenship Education (Malay) (Upper Primary)	Core	3	-
4	ACV40A	Assessment in Character and Citizenship Education (Malay)	Core	2	-

ACV20A Teaching of Character and Citizenship Education (Malay) (Lower Primary)

This course introduces student teachers to the basic concepts of Knowledge, Skills, Values and Attitudes with regard to Character and Citizenship Education. The course provides guidance for planning and implementing lessons based on CCE Lesson Objectives at the lower primary level.

ACV20B Teaching of Character and Citizenship Education (Malay) (Upper Primary)

This course introduces student teachers to the role of Domains in Character and Citizenship Education with particular emphasis on the global. The course provides guidance for planning and implementing lessons based on CCE Lesson Objectives at the upper primary level.

ACV40A Assessment in Character and Citizenship Education (Malay)

This course aims to help student teachers explore the concept of holistic assessments in Character and

Citizenship Education and their aims and approaches. Student teachers will learn how to assess not only knowledge and skills but also values and attitudes as well.

The Teaching of Mathematics (Primary)

Table 1: CS1 Mathematics Structure for Bachelor of Science in an Academic Discipline and in Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACM20A	The Teaching and Learning of Primary Mathematics I	Core	3	-
3	ACM30A	The Teaching and Learning of Primary Mathematics II	Core	3	-
4	ACM40A	The Teaching and Learning of Primary Mathematics III	Core	3	-
	ACM40B	Assessment Literacy for the Primary Mathematics Classrooms	Core	3	-

Table 2: CS2 Mathematics Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACM20A	The Teaching and Learning of Primary Mathematics I	Core	3	-
3	ACM30A	The Teaching and Learning of Primary Mathematics II	Core	3	-
4	ACM40A	The Teaching and Learning of Primary Mathematics III	Core	3	-

ACM20A The Teaching and Learning of Primary Mathematics I

This first course in The Teaching and Learning Primary Mathematics series aims to introduce student teachers to (i) the Singapore Primary Mathematics Curriculum, (ii) preparation of lesson plans (iii) pedagogical strategies and psychological theories and (iv) the teaching of topics: whole numbers, fractions, decimals, percentages, ratio and direct proportion, rate and algebra. This course will provide a good foundation for the rest of the Teaching and Learning of Primary Mathematics series.

ACM30A The Teaching and Learning of Primary Mathematics II

This second course in The Teaching and Learning Primary Mathematics series aims to introduce you to (i) the teaching of topics such as Measurement, Geometry, and Statistics (ii) microteaching involving student teachers showcasing your teaching approaches for the topics covered in this course (iii) pedagogical strategies and psychological theories.

ACM40A The Teaching and Learning of Primary Mathematics III

This course aims to (1) further strengthen the theory-practice nexus by providing opportunities for pre-service teachers to apply pedagogical principles and theories to inform their planning of a lesson involving mathematical problem solving that promotes higher order thinking, and (2) provide student teachers with an overview of assessment literacy for primary mathematics classrooms: assessment of learning with an emphasis on various traditional assessment modes in Mathematics and the use of these modes in schools to assess pupils' performance.

ACM40B Assessment Literacy for the Primary Mathematics Classrooms

This course aims to extend the repertoire of student teachers in assessment literacy within the primary mathematics curriculum in the following ways: (i) an understanding of MOE's philosophical stance and goals of assessment, (ii) an understanding of key perspectives on assessment and their associated terms, (iii) an appreciation of the role of assessment as part of teaching and learning and (iv) familiarisation of various assessment strategies in line with different perspectives on assessment. This course will provide an overview of the assessment climate in Singapore primary schools.

The Teaching of Music (Primary)

Table 1: CS1 Music Structure for Bachelor of Arts in an Academic Discipline and in Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	ACI10C	Music and Movement in the Inclusive Classroom	Core	3	-
2	ACI20C	Popular Music Pedagogies	Core	3	-
3	ACI30C	Instrumental and Singing Skills for the Music Classroom	Core	3	-
4	ACI40H	Creativity in Music Education	Core	3	-

Table 2: CS2 Music Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	ACI10C	Music and Movement in the Inclusive Classroom	Core	3	-
2	ACI20C	Popular Music Pedagogies	Core	3	-
3	ACI30C	Instrumental and Singing Skills for the Music Classroom	Core	3	-

ACI10C Music and Movement in the Inclusive Classroom

This course provides a foundational understanding of different learning disabilities that can be encountered in an inclusive classroom. It aims to equip you with tools and processes to activate an inclusive music and movement classroom environment and an overview of possible accommodations to be made for students with disabilities. The course will also focus on current research and pedagogical practices appropriate for inclusive music education.

ACI20C Popular Music Pedagogies

This module aims to develop music student teachers' ensemble skills in pop band contexts and pedagogical knowledge related to the teaching of popular music. You will get to develop skills in playing a range of pop band instruments as well as using digital audio

workstations to produce teaching resources such as backing tracks. You will also explore and apply pedagogical approaches related to popular music such as non-formal teaching and informal learning, in addition to other approaches (e.g., experience-concept-application).

ACI30C Instrumental and Singing Skills for the Music Classroom

This module aims to develop music student teachers' individual and ensemble skills in playing a range of acoustic classroom musical instruments including the ukulele, guitar, recorder, keyboard, pitched and unpitched percussion instruments. In addition, you will also get to explore how to craft simple classroom musical arrangements employing the instrumentation mentioned, and pedagogical approaches appropriate for teaching those instruments (e.g., experience-concept-application, non-formal teaching).

ACI40H Creativity in Music Education

This course explores more contemporary pedagogies that develop musical creativity beyond traditional pedagogies (e.g., Dalcroze, Kodaly) covered in earlier courses. In particular, it examines how musical creativity may be defined and enthused through free improvisation and soundscape practices. It also explores pedagogical and assessment strategies that support these creative practices. Upon course completion, you will be able to formulate and implement music lessons that effectively develop and assess students' musical creativity by drawing upon theoretical concepts and musical experiences acquired in this course.

The Teaching of Physical Education (Primary)

Table 1: CS1 Physical Education Structure for Bachelor of Science in Sport Science and Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	APC10A	Principles of Games	Core	2	-
	APC10J	Fundamental Movement Skills	Core	3	-
	APC10K	The Teaching of Outdoor Education (Primary)	Core	2	-
2	APC20J	Teaching of Holistic Health & Physical Fitness	Core	2	-
3	APC30C	Instructional Methods in Physical Education	Core	3	-
4	APC40B	Instructional Strategies in Physical Education	Core	3	-

Note: The courses listed below are only meant for Dip Ed crossovers and returning teachers entering the double major programmes who need to top up on AU requirements in order to meet the minimum number of AUs required for graduation.

Course Code	Title	Course Category	No. of AUs	Pre-requisites
APC24A	Hockey	Pres	3	-
APC24B	Netball	Pres	3	-
APC24C	Rugby	Pres	3	-
APC24E	Tennis	Pres	3	-
APC24H	Squash	Pres	3	-
APC24J	Table Tennis	Pres	3	-
APC24K	Tchoukball	Pres	3	-
APC24M	Introduction to Hip-Hop & its Dances	Pres	3	-
APC24Q	Introduction to Dances of American Origin	Pres	3	-

APC10A Principles of Games

This course is designed to introduce student teachers to the concepts, theories and principles underpinning the teaching of games and to develop their pedagogical understanding in a broad spectrum of games.

They will also acquire lesson ideas, content development / progressions and teaching strategies for the teaching of target*, invasion, net / barrier and striking / fielding games suitable for use in primary schools. Student teachers will be introduced to

developmentally appropriate teaching styles / strategies / approaches / models that develop their pupils into confident and active participants of the games.

These approaches include Teaching Games for Understanding (TGFU), Play Practice, the Games Concept Approach (GCA) and the Sport Education Model (SEP). Relevant Sports Science knowledge behind effective techniques, skills, tactics and their development in the game, various game-specific assessment tools of skills and game performance as well as the use of information technology (ICT) will also be introduced.

* Target games will be prioritised.

APC10J Fundamental Movement Skills

This course provides student teachers with an understanding of the concepts, principles and practices of teaching fundamental movement skills in primary school.

It provides an overview of the role of fundamental movement within the Singapore's school physical education curriculum, focusing on developing fundamental movement skill proficiencies at the lower primary, application in modified games in the upper primary, and relationship to the variety of specialised sports skills at the secondary levels. Specifically, this course will address the various manipulative, loco motor and non-loco motor skills applied within a movement framework that helps define the qualitative and quantitative aspects of human movement effort.

Student teachers will have the opportunity to develop their own movement proficiency, learn to design developmentally appropriate lesson plans that incorporate the relevant teaching approaches with

appropriate equipment to facilitate progressions in the learning process. They will also learn to employ appropriate formative and summative assessment tools in order to optimise pupils' participation and learning.

APC10K The Teaching of Outdoor Education (Primary)

This course aims to introduce the Outdoor Education (OE) learning outcomes and pedagogical approaches related to OE. You will develop competencies in articulating and enacting the three strands and demonstrate foundational pedagogical content knowledge in designing and preparing outdoor experiential learning.

APC20J Teaching of Holistic Health & Physical Fitness

This course is designed to help you acquire knowledge on how to better teach aspects of holistic health and physical fitness so as to promote and develop a lifelong physically active and healthy lifestyle among Primary / Secondary school students. You will be introduced to developmentally appropriate activities to develop various components of fitness. You will also be given the opportunity to design safe and effective health and fitness programmes for your students.

APC24A Hockey

This lecture/practical course is designed to provide a basic framework that will aid first year student teachers in acquiring knowledge and practical skills pertinent to Hockey. This course will cover the fundamentals skills and techniques of hockey and tactics used in the game. The practical sessions enhance knowledge and skills to enable you to understand and attain fundamental demonstration skills of hockey.

APC24B Netball

This course aims to equip you with the knowledge and skills of Netball so that you are able to demonstrate the techniques of the game, and play the game.

APC24C Rugby

The aim of this course is to provide you with knowledge, understanding and playing competency in the various forms of rugby, using tag and touch rugby as forms to learn the fundamentals and skills involved. Game strategies will be learnt and applied in practice and match related sessions. Theory aspects will be learnt so as to fulfil the aspects of the how and why to the game of rugby.

Session practices will include techniques and strategic thinking to understand the principles of play. These theory and practical sessions will further aid you in developing the thought process and the application of these mini aspects put together. The Sport Education and Games Concept Approaches (GCA) will be adopted, employing the use of modified games to demonstrate the advantages of adjustments to the major game for effective learning.

Finally, you will plan and organize a mini rugby carnival that will include all aspects of the learning outcome at the end of the course.

APC24E Tennis

This course aims to impart the knowledge and competencies essential to having an informed understanding and appreciation of tennis. You will be introduced to the basic skills necessary to play the tennis game.

APC24H Squash

The aim of this course is to introduce you to the key elements involved in playing the game of squash. The course will also provide ideas on developing skills through adequate physical and mental preparation. Analysis of video clips (IT) will be used to introduce elements of style or form and to explain the rules of the game. The rules may subsequently be modified to suit the class. Sport science knowledge will be enlisted to facilitate the learning of technical skills and game play. Game–specific assessment tools will be introduced.

APC24J Table Tennis

This course aims to equip you with the knowledge and skills of table-tennis. It will cover fundamental concepts, techniques and skills through video analysis and skill practice sessions. The rules of game play will be introduced. You are expected to be able to demonstrate the techniques of the game and play the game after attending this course.

APC24K Tchoukball

In this course, you will learn to properly execute the various skills of the game, apply the tactics, and adhere to the rules during gameplay. You should participate in this elective course if you are interested in developing your knowledge and skills in Tchoukball.

APC24M Introduction to Hip-Hop & its Dances

This course is structured to provide you with a history of hip-hop and a practice-based knowledge of its dances, specifically old school hip-hop, middle school hip-hop, new school hip-hop and commercial hip-hop. Basic movement activities include locomotor and non-

locomotor movements, isolation, use of space, use of dynamics and a variation of dance patterns.

APC24Q Introduction to Dances of American Origin

The course is designed to introduce you to some dances of American origin. Namely modern dance, contemporary dance and modern jazz dance. It introduces you to various basic techniques of these dance genres, along with their historical evolutions. It also emphasises dance safety principles while developing body and space awareness, musicality, performance, creativity, teamwork, and professionalism.

APC30C Instructional Methods in Physical Education

This course is designed to provide student teachers with the opportunity to develop foundation skills of planning, teaching and evaluating school physical education in primary schools.

They will be introduced to content selection, organisation, instructional methods, direct teaching styles, task presentation, task, time and student management systems, observation of student performance, as well as feedback provision. Course format will include lectures, discussions, practical experiences, and microteaching.

APC40B Instructional Strategies in Physical Education

This course, second in a series, builds on foundation pedagogical knowledge and skills appropriate for primary school pupils.

It develops competence in a variety of teaching styles evolving from Mosston and Ashworth’s spectrum including inquiry, problem solving, group work and

peer-teaching. A concept approach to teaching games is emphasised. The focus is on planning, teaching and evaluating situationally relevant lessons.

Student teachers will be encouraged to refine their own teaching through systematic observation. Instructional strategies will include lectures, seminars, peer- and/or micro-teaching and assignments.

The Teaching of Science (Primary)

Table 1: CS1 Science Structure for Bachelor of Science in an Academic Discipline and in Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACS20A	Curriculum and Practices for Primary Science	Core	3	-
3	ACS30A	Pedagogies for Primary Science	Core	3	-
4	ACS40A	Assessment in Primary Science	Core	3	-
	ACS40B	Meeting Learners' Needs in Primary Science	Core	3	-

Table 2: CS2 Science Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACS20A	Curriculum and Practices for Primary Science	Core	3	-
3	ACS30A	Pedagogies for Primary Science	Core	3	-
4	ACS40A	Assessment in Primary Science	Core	3	-

ACS20A Curriculum and Practices for Primary Science

The Nature of Science and scientific inquiry form two key foci for teaching science to young children in this course. Effective instructional practices that incorporate these important concepts will be taught through lectures, group discussions, and practical work. Student teachers will also gain an overview of the aims, goals, and objectives of the primary science curriculum from the analyses of syllabuses, textbooks, and other curricular materials in Singapore.

ACS30A Pedagogies for Primary Science

This course introduces student teachers to collaborative inquiry pedagogies for teaching and learning primary science both within and outside the classroom. Student teachers will also plan and

demonstrate their teaching skills with respect to instruction and assessing for understanding.

ACS40A Assessment in Primary Science

This course aims to develop assessment literacy in primary science for student teachers. Formal/non-formal methods of assessment as well as the construction and analyses of written tests and practical work will be taught. Student teachers will also learn how to provide holistic and formative feedback.

ACS40B Meeting Learners' Needs in Primary Science

Student teachers will be introduced to more engaging teaching methods that align with the needs of 21CC learners. They will also delve deeper into their personal philosophies of science teaching and learn how to balance knowledge with skills and values. Ways of differentiating instruction and giving holistic assessment to cater for diverse learners will be covered in this course.

The Teaching of Social Studies (Primary)

Table 1: CS1 Social Studies Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACL20A	Teaching Social Studies in the Primary Classroom	Core	3	-
3	ACL30A	Inquiry in Primary Social Studies	Core	3	-
4	ACL40A	Managing Diversity in the Social Studies Classroom	Core	3	-
	ACL40B	Curriculum Leadership in Primary Social Studies	Core	3	-

Table 2: CS2 Social Studies Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACL20A	Teaching Social Studies in the Primary Classroom	Core	3	-
3	ACL30A	Inquiry in Primary Social Studies	Core	3	-
4	ACL40A	Managing Diversity in the Social Studies Classroom	Core	3	-

ACL20A Teaching Social Studies in the Primary Classroom

This course aims to provide you with an understanding of the nature, scope, and goals of Social Studies in the context of the Singapore primary curriculum. It seeks to equip you with the knowledge and skills necessary to engage primary school children in meaningful learning of Social Studies. You will be given opportunities during tutorial sessions to design unit and lesson plans focused on key concepts / generalizations and key questions, and craft alternative assessments to assess understanding. The various classroom-based instructional strategies to teach historical, geographical and economic concepts and skills will also be examined.

ACL30A Inquiry in Primary Social Studies

This course aims to equip student teachers with the understandings, knowledge, and skills to teach inquiry-based lessons for conceptual understanding. They will take on the role of curricular-instructional gatekeepers and learn to select or adapt appropriate discussion and/or investigation models, facilitate effective discussions of issues related to social studies, and conduct process-based inquiry either in the primary classroom and/or in the field. They will be able to select, adapt and/or design suitable resources with the goals of helping their students develop deeper understanding of social studies content, multiple perspectives and empathy, and research and critical thinking skills so as to make decisions that are based on sound and objective reasons. They will also have an opportunity to plan, organise and conduct an inquiry-based fieldwork.

ACL40A Managing Diversity in the Social Studies Classroom

This course aims to equip student teachers with the knowledge and strategies to teach about diversity in Singapore and to cater to diverse learners in the classroom. Student teachers will be introduced to the principles and strategies of differentiated instruction and opportunities will be provided for them to plan a differentiated lesson for Primary Social Studies. They will also be encouraged to research and reflect critically on issues related to teaching about diversity in their Social Studies lessons so that primary pupils will be able to make meaningful connections and develop enduring understandings about diversity in Singapore, the region, and the world.

ACL40B Curriculum Leadership in Primary Social Studies

This course aims to provide you with an in-depth conceptual understanding of the Primary Social Studies curriculum in preparation for becoming specialists and curriculum leaders in school. It will equip you with the competencies necessary for designing, implementing, and evaluating the Primary Social Studies curriculum.

The Teaching of Tamil Language (Primary)

Table 1: CS1 Tamil Language Structure for Bachelor of Arts in Tamil Studies and Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	ACT10A	Assessment in Tamil Language Teaching	Core	3	-
2	ACT20A	Language Education and Pedagogy in teaching of Tamil Language	Core	3	-
	ACT20B	Teaching Reading and Writing in Tamil Language	Core	3	-
4	ACT40B	Use of Information Communication Technology in Teaching Tamil Language	Core	3	-
	ACT40C	Teaching of Tamil Poetry	Core	3	-

Student teachers reading Tamil Studies will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

ACT10A Assessment in Tamil Language Teaching

The course will enable you to understand the rationale behind the formative and summative assessments and evaluation in bringing the best potential in the Teaching and Learning of Tamil Language. You will be able to think critically and creatively in designing and experimenting the assessment tools including project based and rubrics-based assessments in the testing of aural, oral, reading and writing skills.

ACT20A Language Education and Pedagogy in Teaching of Tamil Language

The course aims to allow you to understand the importance of writing and reading research articles to create an impact in Language Education, particularly in the second language environment in Singapore. By drawing on relevant research, you will be able to learn and use various kinds of pedagogical approaches to facilitate reading and writing in classrooms to sustain students' needs, interests and desires in language education.

ACT20B Teaching of Reading and Writing in Tamil Language

This course will include theories and practices on the teaching of reading and writing in Tamil language in schools. Reading and writing have their inter-related connection in developing a child's knowledge and language skills. These two main skills are pertinent skills in a student's life-long use of Tamil Language.

ACT40B Use of Information Communication Technology in Teaching Tamil Language

This course provides an overview on the use of Information Communication Technology (ICT) in teaching Tamil Language over the years. You will study the history of teaching Tamil Language and the tools adopted in the past.

The course broadens their understanding on the growth and usage of ICT in teaching and learning of Tamil Language according to MOE's ICT master plans – eLearning and learning portals. By assessing the various ICT tools and its impact on teaching and learning of Tamil Language, you will acquire the skills to apply them in classroom teaching.

ACT40C Teaching of Tamil Poetry

The new course aims to deepen the student teachers' knowledge to recognize and analyse the techniques used in the writing of Tamil Poetry from classical to modern period. Student teachers will be equipped with the pedagogical knowledge to teach poetry ranging from classical to modern period.

The Teaching of Character and Citizenship Education (Tamil) and Tamil Literature (Primary)

Table 1: CS2 Character and Citizenship Education (Tamil) and Tamil Literature Structure for Bachelor of Arts in Tamil Studies and Education (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	ACK10A	Introduction to CCE: Content, Curriculum, Pedagogy and Assessment	Core	3	-
4	ACK40A	Character and Citizenship Education and Moral Literature	Core	3	-
	ACK40B	Character and Citizenship Education and Children Literature	Core	3	-

* Student teachers reading Tamil Studies will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

ACK10A Introduction to Character and Citizenship Education: Content Curriculum Pedagogy and Assessment

You will be given an overview on the content, curriculum and importance of Character and Citizenship Education (CCE) in Tamil Language. Through this course you will have a deeper understanding of the MOE guidelines and expectations of a 21st Century learner. You will be studying different pedagogical theories and the rationale behind them, then learn new pedagogical methods and various methods of CCE assessment.

ACK40A Character and Citizenship Education and Moral Literature

The course aims to enlighten you on the use of moral literature in moral education through texts such as “Kondrai Venthan”, “Moothurai”, etc. You will be studying how moral literature has conveyed global messages via simile, metaphor, literal meanings etc. Moral literature puts forth evergreen global messages that are still relevant in today’s context such as

respecting elders etc. Using content knowledge, you will be able to mould useful citizens.

ACK40B Character and Citizenship Education and Children Literature

The course aims to broaden your understanding on infusing the content knowledge from Children Literature into Character and Citizenship Education lessons. You will be exposed to various Children Literature texts such as children stories, poem songs, lullabies and nursery rhymes so that you may learn to infuse this knowledge purposefully into CCE lessons. You will be studying literary texts written by Azha Valliyappa and stories from the Thenali Raman stories and Peerbaal Stories.

The Teaching of Art (Secondary)

Table 1: CS1 Art Structure for Bachelor of Arts in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACA22A	Concepts and Practices in Art Education	Core	3	-
3	ACA32A	Children and Adolescent's Artistic Development and its Implications for Teaching	Core	3	-
4	ACA42A	Curriculum and Assessment in Art (Teaching of Art 3)	Core	3	-
	ACA42B	Teaching of Art in the Classroom (Teaching of Art 4)	Core	3	-

Table 2: CS2 Art Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACA22A	Concepts and Practices in Art Education	Core	3	-
3	ACA32A	Children and Adolescent's Artistic Development and its Implications for Teaching	Core	3	-
4	ACA42B	Teaching of Art in the Classroom (Teaching of Art 4)	Core	3	-

ACA22A Concepts and Practices in Art Education

The course examines how art education has evolved over time. Issues that arise from these changes and developments will be discussed. You should take this course so that you will be acquainted with the various ideas associated with art education. With the knowledge, you will reflect upon your own practices as a future art educator and relate these ideas and your role as an art educator to the past, present and future of art education.

ACA32A Children and Adolescent's Artistic Development and its Implications for Teaching

This course introduced classical and contemporary theories of children and adolescent development in the visual arts. It helps you understand the various theoretical frameworks and how these underpin particular approaches to pedagogy and classroom practices. You will learn to design meaningful art experiences for children and adolescents based on these understandings to promote learning in art. You will also gain an in-depth understanding of the centrality of meaningful art engagements to the development of the whole person– specifically in the areas of artistic and aesthetic maturation and creative growth.

ACA42A Curriculum and Assessment in Art (Teaching of Art 3)

This course is important for student teachers who are going to be art teachers in secondary schools and junior colleges. This course aims to prepare student teachers with the competencies to design art curriculum for secondary schools and junior colleges.

ACA42B Teaching of Art in the Classroom (Teaching of Art 4)

This course demands you to bring together learning from other courses in designing art lessons for the classroom. You will learn about key considerations when designing lessons such as writing lesson objectives, selecting appropriate activities to facilitate the implementation of lesson and evaluation of students' learning. You will also be conscious of your own teaching approaches and be reflective about them.

The Teaching of Biology (Secondary)

Table 1: CS1 Biology Structure for Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACB22A	Curriculum and Scientific Practices in Biology Education	Core	3	-
3	ACB32A	Pedagogies in Biology Education	Core	3	-
4	ACB42A	Assessment in Biology	Core	3	-
	ACB42B	Innovative Biology Teaching	Core	3	-

Table 2: CS2 Biology Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACB22A	Curriculum and Scientific Practices in Biology Education	Core	3	-
3	ACB32A	Pedagogies in Biology Education	Core	3	-
4	ACB42A	Assessment in Biology	Core	3	-

ACB22A Curriculum and Scientific Practices in Biology Education

The course aims to discuss issues related to the nature of science, scientific literacy, and the use of history for teaching Biology. It also aims to develop the pedagogical content knowledge of student teachers by engaging them in discussing alternative conceptions, difficulties and problems in teaching various Biology topics.

ACB32A Pedagogies in Biology Education

The course aims to equip student teachers with

1. basic microteaching skills such as opening and
2. closing a lesson, questioning, and explaining skills
3. skills to provide constructive feedback on their peers' microteaching presentations.
4. knowledge and skills for various teaching strategies

5. knowledge and skills to prepare lesson plans and teaching resources.
6. knowledge of laboratory safety rules

ACB42A Assessment in Biology

The course aims to examine issues on assessment and evaluation in science, discuss test construction, assessment of practical skills, the setting of tasks for end-of course practical, marking of examination scripts, and its implications for teachers. Student teachers will also be introduced to strategies used for formative assessment so that they can more systematically implement assessment for learning in the classroom.

ACB42B Innovative Biology Teaching

This course is designed for pre-service teachers to equip them with ideas for innovation in teaching biology. The role of resource centres in planning for field trips for Biology teaching outside the classroom will be discussed. Participants will be involved in actual field studies and learn to plan and conduct a field trip to a resource centre/nature reserve and present a report on the suitability of the resources available for the teaching of Biology at any given level in schools. Innovative and signature strategies in biology teaching such as argumentation in science, tensions and dilemma in curriculum and teaching biology will also be discussed. The value of this course lies in increasing the competencies of pre-service teachers to use varied and contemporary strategies in their practices.

The Teaching of Chemistry (Secondary)

Table 1: CS1 Chemistry Structure for Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACY22B	Pedagogies in Chemistry Education	Core	3	-
3	ACY32B	Chemistry Planning and Instruction	Core	3	-
4	ACY42A	Assessment and laboratory issues in Chemistry	Core	3	-
	ACY42C	Trends and Issues in Chemistry Education	Core	3	-

Table 2: CS2 Chemistry Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACY22B	Pedagogies in Chemistry Education	Core	3	-
3	ACY32B	Chemistry Planning and Instruction	Core	3	-
4	ACY42A	Assessment and laboratory issues in Chemistry	Core	3	-

ACY22B Pedagogies in Chemistry Education

The 39-hour course aims to

1. Provide teacher-guided and student-centric learning sessions that guide student teachers in the applications of PCK and PP in the teaching of specific chemistry topics so that they develop a repertoire of knowledge and skills to enact the lessons effectively; and
2. Develop instructional packages, infused with appropriate PCK and PP elements, that they can use and teach in their own chemistry lessons.

ACY32B Chemistry Planning and Instruction

The 39-hour course aims to

1. Provide teacher-guided and student-centric learning sessions that guide student teachers in the

writing of lessons plans for classroom-based, and laboratory-based lessons.
2. Equip student teachers with teaching techniques in questioning and scaffolding/developing students' explanations; and
3. Teach the knowledge and skills of designing and facilitating chemistry laboratory lessons.

ACY42A Assessment and Laboratory Issues in Chemistry

The 39-hour course aims to develop student teachers' competencies in

1. Planning a complete Table of Specifications (TOS) for crafting a full assessment package to assess a class of secondary 3 chemistry student teachers in a selected list of learning outcomes from the GCE Ordinary Level Chemistry Syllabus.
2. Constructing a full assessment package (as described in (1)) including the writing of answer and mark schemes;
3. Determining appropriate alternative assessment modes for extending learning of chemistry topics; and,
4. Preparing school student teachers appropriately and effectively for the school chemistry laboratory

ACY42C Trends and Issues in Chemistry Education

The 39-hour course aims to

1. Provide teacher-guided and student-centric learning sessions that guide student teachers in designing and developing ICT-based resources for flipped-based lessons and lessons incorporating current MOE themes.
2. Discuss effective chemistry teaching strategies for students with different levels of readiness; and
3. Introduce strategies for planning and teaching integrated chemistry lessons.

The Teaching of Chinese Language (Secondary)

Table 1: CS1 Chinese Language Structure for Bachelor of Arts in Chinese Studies and Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACC22A	Basic Elements of a Lesson	Core	1	-
	ACC22B	Teaching of Chinese: Form and Meaning	Core	2	-
3	ACC32A	Teaching of Listening & Speaking	Core	2	-
	ACC32B	Teaching of Reading & Writing	Core	2	-
4	ACC42A	Language Testing	Core	3	-
	ACC42B	Planning and Developing Student-centered Language Lessons	Core	2	-

ACC22A Basic Elements of a Lesson

This course introduces to student teachers the basic elements of a lesson, namely, objectives, content, process and evaluation, and helps them to understand how the elements work together as an organic whole. It aims to equip student teachers with the fundamental foundation to plan and develop a language lesson.

ACC22B Teaching of Chinese: Form and Meaning

This course aims to provide the student teachers with the basic theories and knowledge about the teaching of the Chinese Language in the classroom. Topics include: the relationship between the behaviourist and cognitivist theories and the teaching and learning of the Chinese language, the understanding of the teaching of vocabulary and its methodologies, the understanding of the teaching of short phrases, sentences construction and their methodologies.

ACC32A Teaching of Listening & Speaking

This course examines the theoretical principles and micro-skills involved in the teaching of listening and speaking from both the receptive and productive

perspectives. Topics include philosophy underlying the teaching of listening and speaking; listening and the teaching of receptive skills; designing and developing listening tasks; speaking and the teaching of productive skills; designing and developing speaking tasks; an integrated approach to the teaching of the receptive and productive spoken skills.

ACC32B Teaching of Reading & Writing

This course examines the theoretical principles and micro-skills involved in the teaching of reading and writing from both the receptive and productive perspectives. Topics include philosophy underlying the teaching of reading and writing; reading and the teaching of receptive skills; designing and developing reading tasks; writing and the teaching of productive skills; designing and developing writing tasks; an integrated approach to the teaching of the receptive and productive written skills.

ACC42A Language Testing

This course introduces the basic theory and practice of Chinese language testing and assessment. Topics include: principles and types of language testing and assessment; designing, developing and administering language tests; constructing test tasks for syntax, vocabulary, phonology and the Chinese script; constructing test tasks for listening, speaking, reading and writing skills; analysing and interpreting test statistics.

ACC42B Planning and Developing Student-centered Language Lessons

This course aims to equip you with the skills and knowledge to plan and develop student centered language lessons. Topics include analysing learning

needs and learning environment; delineating appropriate objectives; selecting appropriate content,

sequence and assessment tools; selecting and incorporating student-centered strategies and activities into language lessons, in alignment to the latest educational trends.

The Teaching of Chinese Literature (Secondary)

Table 1: CS2 Chinese Literature Structure for Bachelor of Arts in Chinese Studies and Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACJ22A	Introduction to the Teaching of Chinese Literature & China Studies: Content, Pedagogy, & Assessment	Core	3	-
3	ACJ32A	Teaching of Prose & Poetry: Pedagogy, Design & Facilitation of Learning Activities	Core	3	-
4	ACJ42A	Teaching of Novels & Drama: Pedagogy, Design & Facilitation of Learning Activities	Core	3	-

ACJ22A Introduction to the Teaching of Chinese Literature & China Studies: Content, Pedagogy, & Assessment

This course provides an overview of the Chinese literature & China studies curriculum in Singapore schools. Topics include: the aims and objectives of teaching Chinese literature and China Studies as a subject; syllabus and content of Chinese literature and China studies at secondary and JC levels; general methods and techniques for the teaching of literature; assessment for literature.

ACJ32A Teaching of Prose & Poetry: Pedagogy, Design & Facilitation of Learning Activities

This course introduces the various approaches and techniques for the teaching of prose and poetry. Topics include selection of materials; elements of prose and poetry; teaching strategies; design and facilitation of learning activities for literary development, cultural literacy, critical and creative thinking.

ACJ42A Teaching of Novels & Drama: Pedagogy, Design & Facilitation of Learning Activities

This course equips you with an understanding of the characteristics of fiction and drama teaching. The course introduces the various approaches and techniques for the teaching of fiction and drama. Topics include: selection of teaching materials; elements of fiction and drama; teaching strategies; design and facilitation of learning activities for literary development, cultural literacy, critical and creative thinking.

The Teaching of Drama (Secondary)

Table 1: CS1 Drama Structure for Bachelor of Arts in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACU22A	Theatre and Drama Education	Core	3	-
3	ACU32A	Planning and Facilitating Theatre and Drama Education	Core	3	-
4	ACU42A	Critical Pedagogies for Theatre and Drama Education	Core	3	-
	ACU42B	Curriculum and Assessment for Theatre and Drama Education	Core	3	-

Table 2: CS2 Drama Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACU22A	Theatre and Drama Education	Core	3	-
3	ACU32A	Planning and Facilitating Theatre and Drama Education	Core	3	-
4	ACU42B	Curriculum and Assessment for Theatre and Drama Education	Core	3	-

ACU22A Theatre and Drama Education

This course critically examines key features of drama in education. You will be introduced to the historical development of drama in education and be exposed to the various educational theories and frameworks that support drama in education. You will learn to distinguish the differing roles of theatre and drama within the school context and be able to critically discuss the issues surrounding the use of theatre and drama within schools.

ACU32A Planning and Facilitating Theatre and Drama Education

This course examines how drama can be applied as 21st Century pedagogy. You will explore how you can

nurture young people by infusing drama into the classroom in order to begin to equip young people with the life skills necessary for be active and concerned 21st Century citizens. In this rapidly changing world, growing importance is being placed on the need for young people to develop 21st century skills in order to become skilled members of the global workforce. This course will examine and apply why and how drama education has long been recognized for its ability to foster social and self-awareness, self-confidence, empathy, communication skills, critical thinking, intercultural understanding, and collaboration and negotiations skills.

ACU42A Critical Pedagogies for Theatre and Drama Education

This course will introduce key concepts and developments in the practice and pedagogy of drama as an artistic medium for engaged and collaborative learning. Through group improvisations that engage in drama conventions and practices, you will participate in thematic and issue-based processes of storytelling, scenario-building and symbolic creativity to understand how drama operates aesthetically and pedagogically as a creative, engaged and empowering process. It will introduce frameworks and methodologies that enable the facilitators to develop skills and capacities in how to apply and use drama as a medium that enhances socio-cultural and aesthetic engagement, reflexivity and agency. Drama has been used in various contexts for: artistic communication, personal development, meaning-making and empowerment. You will come to understand a range of philosophical viewpoints relating to the educative purpose and power of drama and how they are realized in practice.

ACU42B Curriculum and Assessment for Theatre and Drama Education

What constitutes learning in drama? How do we scaffold learning for all students? How do we make judgements about whether learning has occurred and to what standard? These are some of the fundamental questions teachers need to ask as they select content and materials and consider sequencing and assessment for the planning and implementing of a drama curriculum. In this course, you will apply their developing knowledge of curriculum and planning as you devise detailed materials to be used in the school context. You will consider local drama curriculum within a national and international paradigm. You will become familiar with curriculum theory and drama curriculum theorists such as March, O'Toole, Pascoe and Lin. You will examine different types of assessment modes and identify effective ways to assess students' practical and theoretical work.

The Teaching of English Language (Secondary)

Table 1: CS1 English Language Structure for Bachelor of Arts in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACE22B	Teaching of English at the Secondary Level: Reading and Viewing	Core	3	-
3	ACE32B	Teaching of English at the Secondary Level: Writing and Representing	Core	3	-
4	ACE42A	Teaching of English at the Secondary Level: Listening and Speaking	Core	3	-
	ACE42B	Teaching Grammar at the Secondary Level	Core	3	-

Table 2: CS2 English Language Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACE22B	Teaching of English at the Secondary Level: Reading and Viewing	Core	3	-
3	ACE32B	Teaching of English at the Secondary Level: Writing and Representing	Core	3	-
4	ACE42A	Teaching of English at the Secondary Level: Listening and Speaking	Core	3	-

ACE22B Teaching of English at the Secondary Level: Reading and Viewing

This course will enable English language student teachers to develop expertise in teaching and assessing reading and viewing skills at secondary level. Student teachers will develop an understanding of the critical role that reading and viewing play in the language classroom and investigate varied teaching strategies for meeting learners' diverse abilities and needs. The course engages student teachers through collaborative learning activities that explore approaches, skills and strategies to teaching and assessing reading and viewing, and provides

guidance for developing, evaluating and adapting reading and viewing tasks and resources.

ACE32B Teaching of English at the Secondary Level: Writing and Representing

This course aims to equip English language student teachers with the theoretical knowledge and pedagogical practices for teaching writing and representing as well as how to evaluate students' writing at secondary level. It adopts an approach which balances theory, practice, and application.

It is designed to provide student teachers with a broad perspective on models and approaches to writing pedagogy, to guide student teachers on how to write to suit the audience, purpose, context and culture in various texts, and to show them how to integrate writing with other language skills.

It encourages exploration, critique, and adaptation of multimodal teaching resources and approaches directed by current national initiatives in language teaching with the aim of developing classroom practitioners who are reflective, informed, innovation-conscious, and confident of themselves as writing teachers.

ACE42A Teaching of English at the Secondary Level: Listening and Speaking

This course develops foundational knowledge and skills to enable English language student teachers to develop expertise in teaching and assessing listening and speaking as well as viewing and representing at the secondary level. The course encourages the exploration, critique and adaptation of teaching approaches, skills, strategies and resources to meet pupils' listening and speaking needs. The course

engages student teachers through collaborative learning activities and demonstrations of approaches to teaching listening and speaking as well as viewing and representing, and guides them in developing, evaluating, and adapting teaching tasks and resources to meet the needs of learners.

ACE42B Teaching Grammar at the Secondary Level

The course addresses key principles of grammar teaching. Student teachers are exposed to a variety of instructional strategies, techniques and resources which will prepare them to teach grammar in a secondary school. Student teachers will explore how established as well as new grammar teaching approaches could be integrated into the wider context of teaching other language skills within a progressive, spiralled curriculum. They will have opportunities to examine the grammar of multimodal texts and design appropriate teaching tasks to meet the needs of the 21st century learner of the English Language.

The Teaching of English Literature (Secondary)

Table 1: CS1 English Literature Structure for Bachelor of Arts in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2/3	ACR32A	Teaching Prose	Core	3	-
	ACR32B	Teaching Poetry	Core	3	-
4	ACR42A	Designing Literature Curriculum and Assessment	Core	3	-
	ACR42B	Teaching Drama	Core	3	-

Table 2: CS2 English Literature Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2/3	ACR32A	Teaching Prose	Core	3	-
	ACR32B	Teaching Poetry	Core	3	-
4	ACR42B	Teaching Drama	Core	3	-

ACR32A Teaching Prose

This course starts by giving a broad overview of the principles, aims and objectives, and general methodology of teaching Literature as a subject. It considers the assumptions underlying different approaches to Literature teaching, as well as examines the local Literature curriculum. Issues such as text selection, canon-formation and problems of representation will also be considered. The course will then consider the various approaches and techniques for teaching prose fiction like the short story and the novel. It covers the selection of appropriate material as well as teaching strategies for the different elements of narrative and style. It will pay attention to the links between reading and writing while considering teaching prose for literary development, cultural literacy, and creative and critical thinking.

ACR32B Teaching Poetry

This course introduces approaches and techniques for teaching poetry. It covers the selection of appropriate material and teaching ideas for the different elements of poetry. It will also pay attention to the links between reading and writing about poetry while considering the teaching of poetry for literary development, cultural literacy, and creative and critical thinking.

ACR42A Designing Literature Curriculum and Assessment

This course will examine the principles and practices used to guide the design of Literature curriculum and assessment. During workshop-style lessons, pre-service teachers will engage in discussions of theoretical principles underlying good design as well as engage in practical sessions focusing on designing inquiry-based curriculum, setting and marking written assessments, and creating and assessing alternative modes of assessments such as oral communication, multimodal ways of assessing and portfolio assessment. Student teachers will also participate in an out-of-school learning journey as part of the course.

ACR42B Teaching Drama

This course will introduce student teachers to approaches and techniques for teaching drama at the lower and upper secondary levels both within and beyond the national literature syllabus requirements. Student teachers will encounter a variety of pedagogical approaches, including teaching literature, language, and national education through the performance and analysis of a series of drama scripts. The course covers the selection of appropriate materials and teaching ideas for teaching drama in the local context.

The Teaching of Geography (Secondary)

Table 1: CS1 Geography Structure for Bachelor of Arts in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACG22A	Planning for Geography Teaching	Core	3	-
3	ACG32A	Classroom-based Teaching Strategies	Core	3	ACG22A
4	ACG42A	Advanced Teaching Strategies in Geography	Core	3	ACG22A and ACG32A
	ACG42B	Field-Based Teaching Strategies and Assessment in Teaching Geography	Core	3	ACG22A and ACG32A

Table 2: CS2 Geography Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACG22A	Planning for Geography Teaching	Core	3	-
3	ACG32A	Classroom-based Teaching Strategies	Core	3	ACG22A
4	ACG42B	Field-Based Teaching Strategies and Assessment in Teaching Geography	Core	3	ACG22A and ACG32A

ACG22A Planning for Geography Teaching

This course aims to provide you with the disciplinarity and conceptual understandings of geography, and its links to constructivist theories of knowledge creation and acquisition. The focus of the course is to help you acquire a deep understanding of geography as a discipline, make meaning of the geography curriculum and appreciate the purpose of geography education so that you can plan for meaningful learning of geography for your learners.

ACG32A Classroom-based Teaching Strategies

This course aims to provide you with the basic pedagogical content knowledge and skills to teach the secondary school geography curriculum. It focuses on using the inquiry-based approach to design meaningful learning experiences that will engage students in the classroom and enable them to develop key geographical understandings.

ACG42A Advanced Teaching Strategies in Geography

This course aims to deepen your understanding and mastery of pedagogical content knowledge and skills in the teaching of secondary school geography. It focuses on key aspects of education research related to inquiry-based learning and applies these to teaching and learning school geography in the Singapore context.

ACG42B Field-Based Teaching Strategies and Assessment in Teaching Geography

This course provides you with the pedagogical content knowledge and skills to teach geography experientially in the field. It focuses on using the inquiry-based approach to design meaningful learning experiences that will engage your students in the field. The second component of the course seeks to guide your inquiry into the fundamentals of summative assessment in geography. It focuses on providing you with opportunities to craft summative assessment items with accompanying mark schemes.

The Teaching of History (Secondary)

Table 1: CS1 History Structure for Bachelor of Arts in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACH22A	Introduction to the Teaching and Learning of Secondary History	Core	3	-
3	ACH32A	Learning to Teach for Historical Understanding	Core	3	ACH22A
4	ACH42A	Inquiry-based Experiential Learning: Fieldtrip Design for Secondary History	Core	3	ACH22A and ACH32A
	ACH42B	Assessment and Evaluation in Secondary History	Core	3	ACH22A and ACH32A

Table 2: CS2 History Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACH22A	Introduction to the Teaching and Learning of Secondary History	Core	3	-
3	ACH32A	Learning to Teach for Historical Understanding	Core	3	ACH22A
4	ACH42B	Assessment and Evaluation in Secondary History	Core	3	ACH22A and ACH32A

ACH22A Introduction to the Teaching and Learning of Secondary History

This course introduces you to the teaching and learning of history in secondary schools. It examines the nature and purpose of history education in the curriculum and provides you with opportunities to explore emerging issues and key questions that are central to the teaching of the school history. This course also aims to equip you with the pedagogical knowledge and instructional strategies that may support and enhance the teaching and learning of

history at both the lower and upper secondary levels. You will be taught basic principles of effective lesson planning, and will be given ample practice to develop lesson plans that are inquiry-based and designed to support active learning of history in the classroom.

ACH32A Learning to Teach for Historical Understanding

This course introduces student teachers to the challenging and complex undertaking of teaching for historical understanding. The general assumption that a sturdy understanding of the past may be acquired by a process of committing historical narratives (events, details, names, and dates) to memory is no longer tenable. Much research in history education demonstrates that learning history, for the purpose of deeper understanding, involves both the study of such narratives and the acquisition of a set of discipline-specific cognitive strategies that can help students to better learn and make inquiries into the past. In learning to approach the teaching of history in disciplinary terms, this course aims to provide student teachers with a deep familiarity of the key concepts that structure the historical discipline. At the same time, they also will develop competency in designing instructional strategies that can help secondary school students learn to think about the past in historical terms.

ACH42A Inquiry-based Experiential Learning: Fieldtrip Design for Secondary History

This course introduces student teachers to field-based learning in history and offers them with the opportunity to design (and implement) a history fieldtrip for secondary school students. The course focuses on how experiential learning through fieldtrips can be used to make history ‘come alive’ for secondary

students and proposes that well planned inquiry-based fieldtrips can serve to deepen students' historical understandings. As part of the course, student teachers will plan, organise and conduct historical fieldtrips to selected sites in Singapore, and demonstrate how such fieldtrips can be used to generate interesting and important questions about aspects of the country's history. In the process of conducting their respective fieldtrips, student teachers will demonstrate how secondary school students may be taught to gather and make sense of data collected on-site, and how they can be supported in the task of constructing knowledge. Student teachers will recognise that historical inquiry through fieldtrips not only can provide secondary school students with opportunities to discover little-known information about selected local sites; they also may enhance the students' awareness of their own past and rich cultural heritage.

ACH42B Assessment and Evaluation in Secondary History

This course enables you to develop expertise and competency to carry out assessment in history at the secondary level. It is designed to allow you to acquire familiarity with assessment objectives in history and the expected examination requirements of the current secondary history syllabuses. The course also aims to equip you with basic knowledge and competency to construct assessment items at both the lower and secondary levels. Emphasis is given to the ways historical sources can be used to develop analytical lines of inquiry, and the means through which their worth as historical evidence may be established and evaluated. To meet assessment standards, the course provides you with practical experience in setting source-based and structured-essay questions, guides

you through the process of devising marking schemes, and examines ways you can conduct formative assessment in the history classroom.

The Teaching of Malay Language (Secondary)

Table 1: CS1 Malay Language Structure for Bachelor of Arts in Malay Studies and Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACD22A	Foundations to Malay Language Teaching at the Secondary Level	Core	3	-
3	ACD32A	Teaching and Assessing Reading in Malay	Core	3	-
4	ACD42A	Teaching and Assessing Writing in Malay	Core	3	-
	ACD42B	Teaching and Assessing Malay Grammar	Core	3	-

ACD22A Foundations to Malay Language Teaching at the Secondary Level

This course has three main objectives: to help you understand the principles and purpose of the Malay language curriculum that underlie the Malay language syllabus at the secondary level; to introduce you to the basic theories and concepts related to language teaching and assessment; and to equip you with a foundational knowledge of oral communication and approaches to teaching and assessing listening and speaking skills effectively in the classroom.

ACD32A Teaching and Assessing Reading in Malay

This course aims to help you develop expertise in teaching and assessing reading skills at the secondary level. You will be familiarized with the skills of vocabulary building and comprehension, reading and comprehension strategy instruction, as well as methods for motivating adolescents to read and for meeting learners' diverse abilities and needs. The course provides guidance for evaluating and adapting reading tasks and resources.

ACD42A Teaching and Assessing Writing in Malay

This course aims to help you develop expertise in teaching and assessing writing skills at the secondary level. Student teachers will be familiarised with the skills of vocabulary building and writing, the different strategies for effectively integrating classroom writing with other language skills, as well as methods for motivating adolescents to write. The course provides guidance for developing, evaluating, and adapting writing tasks and resources.

ACD42B Teaching and Assessing Malay Grammar

This course aims to help you develop expertise in teaching and assessing grammar at the secondary level. You will be familiarised with the role of grammar in syllabus text types and current textbooks, and the practice of designing appropriate grammar teaching and assessment strategies. As a final course on teaching Malay, you will also learn how to plan a lesson on Malay grammar within the wider context of teaching and assessing other language skills acquired in the earlier courses.

The Teaching of Malay Literature (Secondary)

Table 1: CS2 Malay Literature Structure for Bachelor of Arts in Malay Studies and Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACF22A	Teaching of Modern Malay Literature	Core	3	-
	ACF22B	Teaching of Traditional Malay Literature	Core	3	-
4	ACF42A	Designing Programmes and Assessment in the Teaching of Malay Literature	Core	3	-

ACF22A Teaching of Modern Malay Literature

This course introduces you to the aims and objectives of teaching literature and the place of literature in the curriculum, as well as an overview of the development of modern Malay and Indonesian literature. You will learn the methods and techniques of teaching literature at the secondary school, with a particular focus on the knowledge, skills and appreciation in the teaching of modern Malay and Indonesian texts (novels, short stories, poetry and drama/play).

ACF22B Teaching of Traditional Malay Literature

The course prepares you to teach traditional Malay literature in secondary schools. It offers an overview of the main features and developments of traditional Malay literature, and the particular knowledge, skills and appreciation in the teaching of traditional Malay prose and poetry, as well as the principles, methods and techniques of teaching selected classical genres and texts.

ACF42A Designing Programmes and Assessment in the Teaching of Malay Literature

In this course, you will be trained to explore and design creative literary programmes and performances within

and beyond the school vicinity. Special skills training in utilising and integrating multimedia and multi artistic forms to express meanings in literary texts will be incorporated. Evaluation and testing of traditional and modern literature will also be considered. You will examine and critique test items and sample test papers.

The Teaching of Mathematics (Secondary)

Table 1: CS1 Mathematics Structure for Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACM22A	Teaching and Learning Mathematics I	Core	3	-
3	ACM32A	Teaching and Learning Mathematics II	Core	3	-
4	ACM42A	Teaching and Learning Mathematics III	Core	3	-
	ACM42B	Specialised Areas in Teaching and Learning of Mathematics	Core	3	-

Table 2: CS2 Mathematics Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACM22A	Teaching and Learning Mathematics I	Core	3	-
3	ACM32A	Teaching and Learning Mathematics II	Core	3	-
4	ACM42A	Teaching and Learning Mathematics III	Core	3	-

ACM22A Teaching and Learning Mathematics I

This is the first course in the Teaching and Learning Mathematics series. For this course, student teachers will have opportunities to explore the teaching and learning of specific mathematical topics, such as Arithmetic, Basic algebra, Matrices, Sets, Probability and Statistics. We will focus on developing a deep understanding of the mathematical concepts in these topics, and an inquiry mindset towards improving teaching. In addition, we will discuss a variety of issues related to classroom teaching and learning mathematics in Singapore—SG Mathematics Curriculum Framework, aims of mathematics education, mathematical problem solving, learning theories relevant to mathematics education, and lesson planning. Student teachers will find many opportunities to develop crucial craft skills for teaching mathematics: Explaining concepts, demonstrating

examples, selecting, and sequencing questions, and using appropriate ICT tools when appropriate.

ACM32A Teaching and Learning Mathematics II

The main objectives of this course are: (1) Strengthen the student teachers' grasp in the principles of teaching secondary mathematics covered in the first course by integrating these principles with the use of technology. Student teachers have hands-on opportunity to learn the use of suitable computer tools, such as graphing and Dynamic Geometry software, to design instructional materials; (2) broaden the scope of study in the teaching and learning of mathematics to other topics, such as Geometry, Mensuration, Functions and Graphs, and Trigonometry.

ACM42A Teaching and Learning Mathematics III

This course is designed to be practice-oriented in that you will have opportunities to further your inquiry about teaching and learning of mathematics by studying problems and challenges of actual classroom practice. You will get to analyse authentic materials such as student errors and classroom videos, weigh the merits of different instructional pathways in light of principles and practice of mathematics education covered in earlier ACM courses, develop workable theory-based classroom materials for quality instruction, and design suitable assessment tools for the evaluation of teaching and learning.

ACM42B Specialised Areas in Teaching and Learning of Mathematics

This course provides student teachers with the opportunity to deepen knowledge and expertise in relevant specialised areas within the scope of secondary mathematics education in Singapore.

These areas include: developing pedagogical content knowledge in more advanced mathematics topics; exploring re-designs of instructional units in order to integrate specific implements, such as mathematical modelling, into practice; and designing instruction in a way that meets the needs of diverse learners in the classroom.

The Teaching of Music (Secondary)

Table 1: CS1 Music Structure for Bachelor of Arts in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACI22C	Popular Music Pedagogies	Core	3	-
3	ACI32C	Instrumental and Singing Skills for the Music Classroom	Core	3	-
4	ACI42D	Teaching Music as an Examination Subject at O- and N(T)-level	Core	3	-
	ACI42E	Creativity in Music Education	Core	3	-

Table 2: CS2 Music Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACI22C	Popular Music Pedagogies	Core	3	-
3	ACI32C	Instrumental and Singing Skills for the Music Classroom	Core	3	-
4	ACI42E	Creativity in Music Education	Core	3	-

ACI22C Popular Music Pedagogies

This module aims to develop music student teachers' ensemble skills in pop band contexts and pedagogical knowledge related to the teaching of popular music. You will get to develop skills in playing a range of pop band instruments as well as using digital audio workstations to produce teaching resources such as backing tracks. You will also explore and apply pedagogical approaches related to popular music such as non-formal teaching and informal learning, in addition to other approaches (e.g., experience-concept-application).

ACI32C Instrumental and Singing Skills for the Music Classroom

This module aims to develop music student teachers' individual and ensemble skills in playing a range of acoustic classroom musical instruments including the ukulele, guitar, recorder, keyboard, pitched and unpitched percussion instruments. In addition, you will also get to explore how to craft simple classroom musical arrangements employing the instrumentation mentioned, and pedagogical approaches appropriate for teaching those instruments (e.g., experience-concept-application, non-formal teaching).

ACI42D Teaching Music as an Examination Subject at O- and N(T)-level

This course will cover teaching approaches and specific methodologies for preparing students taking the G.C.E. O- and N(T)- level music exams. You will develop the required pedagogical content knowledge and skills to teach and assess O- and N(T)-level music students. You will also learn how to set the respective music examination papers.

ACI42E Creativity in Music Education

This course explores more contemporary pedagogies that develop musical creativity beyond traditional pedagogies (e.g., Dalcroze, Kodaly) covered in earlier courses. In particular, it examines how musical creativity may be defined and enthused through free improvisation and soundscape practices. It also explores pedagogical and assessment strategies that support these creative practices. Upon course completion, you will be able to formulate and implement music lessons that effectively develop and assess students' musical creativity by drawing upon

theoretical concepts and musical experiences acquired in this course.

The Teaching of Nutrition and Food Science (Secondary)

Table 1: CS1 Nutrition and Food Science Structure for Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACQ22A	Family and Consumer Sciences Curriculum	Core	3	-
3	ACQ32A	Introduction to Family and Consumer Sciences Teaching	Core	3	-
4	ACQ42A	Evaluation in Family and Consumer Sciences Teaching	Core	3	-
	ACQ42B	Trends in Family and Consumer Sciences Education	Core	3	-

ACQ22A Family and Consumer Sciences Curriculum

The focus of this course is to provide a holistic view on the nature, historical, and philosophical base of food, family and consumer sciences; integrative focus of disciplines and areas of specializations; the rationale and objectives of teaching food, family and consumer sciences; curriculum development and planning of food, family and consumer sciences programmes. You will examine the local curriculum and deliberate on ways to package and deliver content knowledge within the context of Singapore school settings.

ACQ32A Introduction to Family and Consumer Sciences Teaching

The focus of this course is on the principles of teaching and learning applied to food and consumer sciences content. Instructional strategies appropriate for formal and informal settings including specific strategies for diverse audiences will be discussed. You will develop teaching skills through your participation in simulated teaching activities with emphasis on the management of strategies. Innovative use of instructional methods in relation to current trends is also highlighted.

ACQ42A Evaluation in Family and Consumer Sciences Teaching

The aim of this course is to introduce you to the elements of evaluation, an essential component of good teaching. You will examine the role evaluation plays in the instructional process and that the effectiveness depends on the ability to construction and select evaluation instruments that provide valid measure of the intended learning outcomes. You will complete specific exercises in designing evaluation instruments for application in the school context.

ACQ42B Trends in Family and Consumer Sciences Education

The aim of this course is to examine the development of family and consumer sciences as a discipline with a focus on current issues and topical concerns and its impact on the curriculum, instruction and assessment of family and consumer sciences in schools. You will carry out small-scale research studies in a relevant cognate area to understand the consumer behaviour of their future charges in schools. The results of these studies will be used to plan and propose strategies that can be applied in current school settings to enhance the discipline in teaching and learning.

The Teaching of Physics (Secondary)

Table 1: CS1 Physics Structure for Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACP22A	Understanding the Physics Curriculum	Core	3	-
3	ACP32A	Physics Instruction & Microteaching	Core	3	-
4	ACP42A	Assessment in Physics Education	Core	3	-
	ACP42B	Reflective Teaching and Inquiry in Physics	Core	3	-

Table 2: CS2 Physics Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACP22A	Understanding the Physics Curriculum	Core	3	-
3	ACP32A	Physics Instruction & Microteaching	Core	3	-
4	ACP42A	Assessment in Physics Education	Core	3	-

ACP22A Understanding the Physics Curriculum

The aim of this course is to develop student teachers' understanding of the physics curriculum and pedagogy for physics teaching. Student teachers will examine the components of the physics curriculum in order to understand their purpose, relevance and importance, pedagogical framework and the disciplinary content. They will also analyse the curriculum at different levels (i.e., G3 Physics, G3 Science (Physics), G2 Science (Physics)) to identify the similarities and differences. The notion of differentiated instruction will be introduced so student teachers will be able to cater to the needs of different groups of students. Different pedagogical approaches for physics teaching will be introduced and compared so that student teachers are aware of the affordances and limitations of different approaches.

ACP32A Physics Instruction & Microteaching

In this course, student teachers will learn to plan a coherent and engaging lesson and carry them out. They will be introduced to a repertoire of instructional strategies that they can employ to effectively support students' physics learning and put theories into practice.

Student teachers will sharpen their teaching skills through an iterative process of Planning, Implementing and Reflecting. They will have first-hand experience on how to select and write appropriate learning objectives, and sequence their activities to ensure a coherent and continuous development of ideas or skills; selecting and developing resources (e.g. worksheets), and planning for assessing students' learning.

Through teaching in simulated and real situations, student teachers are exposed to different techniques of implementing their lesson plan. Emphasis is placed on specific skills like introducing and concluding lessons, classroom discourse, techniques of explanation and questioning, engagement of students' higher order thinking, and conducting individual and group work.

ACP42A Assessment in Physics Education

This course examines critical issues pertaining to assessment and evaluation of Physics learning, including formative assessment and alternative forms of assessment. It also deals with resource management, particularly with reference to laboratory work in the context of practical assessment. Safety in science laboratories, the role of practical work and the enhancement of science process skills are discussed.

The course also seeks to develop student teachers' skills in development of physics tests, marking and analysing of test papers with an emphasis on how to give useful feedback to students, parents, and other stakeholders.

ACP42B Reflective Teaching and Inquiry in Physics

Teaching and learning in physics classroom can be improved if teachers reflect on and inquire into their teaching practice. The course provides student teachers with an understanding of issues to help them in their classroom practices, be it curriculum, instruction or assessment. Student teachers will be engaged in critical reflection of the problems and challenges faced during their Teaching Practice I. They will carry out an inquiry into these issues with an aim to find solutions to their challenges. This will better prepare them as lifelong learners.

The Teaching of Physical Education (Secondary)

Table 1: CS1 Physical Education Structure for Bachelor of Science in Sport Science and Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	APC12A	Principles of Games	Core	2	-
	APC12J	Fundamental Movement Skills	Core	3	-
	APC12K	The Teaching of Outdoor Education (Secondary)	Core	2	-
2	APC22J	Teaching of Holistic Health & Physical Fitness	Core	2	-
3	APC32C	Instructional Methods in Physical Education	Core	3	-
4	APC42B	Instructional Strategies in Physical Education	Core	3	-

APC12A Principles of Games

This course is designed to introduce student teachers to the concepts, theories and principles underpinning the teaching of games and to develop their pedagogical understanding in a broad spectrum of games. They will also acquire lesson ideas, content development/progressions and teaching strategies for the teaching of invasion*, net/barrier, striking/fielding and target games suitable for use in secondary schools.

* Invasion games will be prioritised.

APC12J Fundamental Movement Skills

This course provides student teachers with an understanding of the concepts, principles and practices of applying the knowledge of fundamental movement to specialised sports skills within the secondary school sports/games physical education curriculum.

It provides an overview of the role of fundamental movement within the Singapore's school physical

education curriculum, focusing on developing fundamental movement proficiencies at the lower primary, application in modified games in the upper primary, and its relationship to the variety of specialised sports performance at the secondary levels. Specifically, this course will address the various manipulative, locomotor and nonlocomotor skills applied within a movement framework that helps define the qualitative and quantitative aspects of human effort.

APC12K The Teaching of Outdoor Education (Secondary)

This course aims to introduce the Outdoor Education (OE) learning outcomes and pedagogical approaches related to OE. You will develop competencies in articulating and enacting the three strands and demonstrate foundational pedagogical content knowledge in designing and preparing outdoor experiential learning.

APC22J Teaching of Holistic Health & Physical Fitness

This course is designed to help you acquire knowledge on how to better teach aspects of holistic health and physical fitness so as to promote and develop a lifelong physically active and healthy lifestyle among Primary / Secondary school students. You will be introduced to developmentally appropriate activities to develop various components of fitness. You will also be given the opportunity to design safe and effective health and fitness programmes for your students.

APC32C Instructional Methods in Physical Education

This course is designed to provide student teachers with the opportunity to develop foundation skills of planning, teaching and evaluating school physical education in secondary schools.

They will be introduced to content selection, organisation, instructional methods, direct teaching styles, task presentation, task, time and student management systems, observation of student performance, as well as feedback provision. Course format will include lectures, discussions, practical experiences, and microteaching.

APC42B Instructional Strategies in Physical Education

This course, second in a series, builds on foundation pedagogical knowsledge and skills appropriate for secondary school pupils.

It develops competence in a variety of teaching styles evolving from Mosston and Ashworth's spectrum including inquiry, problem solving, group work and peer-teaching. A concept approach to teaching games is emphasised. The focus is on planning, teaching and evaluating situationally relevant lessons.

Student teachers will be encouraged to refine their own teaching through systematic observation. Instructional strategies will include lectures, seminars, peer- and/or micro-teaching and assignments.

The Teaching of Social Studies (Secondary)

Table 1: CS2 Social Studies Structure for Bachelor of Arts / Bachelor of Science in an Academic Discipline and in Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACL22B	Social Studies Education in the Secondary School Classroom	Core	3	-
3	ACL32B	Inquiry-Based Learning Approach Towards the Teaching of Social Studies	Core	3	-
4	ACL42B	Assessing Learning in Social Studies	Core	3	ACL22B & ACL32B or ACL22A & ACL32A

ACL22B Social Studies Education in the Secondary School Classroom

This course aims to provide you with an understanding of the purpose and nature of Social Studies. The exploration of the Social Studies curriculum will be conducted through multidisciplinary lenses to help you analyse the curriculum aims and outcomes, as well as the scope of the syllabus. The course will provide opportunities for you to understand the various knowledge, skills, and values outcomes so that you are equipped with the key understanding that underpins the curriculum. The course will provide opportunities for you to develop understanding of some of the significant issues and tensions related to social studies education in Singapore.

ACL32B Inquiry-Based Learning Approach towards the Teaching of Social Studies

This course aims to provide you with an understanding of the Inquiry-Based Learning (IBL) approach to support the teaching and learning of Social Studies. The course will use the IBL approach to provide opportunities for you to explore and design a variety of

lessons that will support the investigative nature of the subject. You will be given opportunities to test and review your lesson design so that you can relate theory to practice better.

ACL42B Assessing Learning in Social Studies

This course aims to provide you with an understanding of the rationale for and goals of the assessment format in the upper secondary social studies curriculum. You will have opportunities to examine examination papers, mark sample scripts and set Source-Based Case Study (SBCS) and Structured-Response Questions (SRQs), as well as devise mark schemes.

The Teaching of Tamil Language (Secondary)

Table 1: CS1 Tamil Language Structure for Bachelor of Arts in Tamil Studies and Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	ACT10A	Assessment in Tamil Language Teaching	Core	3	-
2	ACT20A	Language Education and Pedagogy in Teaching of Tamil Language	Core	3	-
	ACT20B	Teaching Reading and Writing in Tamil Language	Core	3	-
4	ACT40B	Use of Information Communication Technology in Teaching Tamil Language	Core	3	-
	ACT40C	Teaching of Tamil Poetry	Core	3	-

* Student teachers reading Tamil Studies will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

ACT10A Assessment in Tamil Language Teaching

The course will enable you to understand the rationale behind the formal and informal assessments and evaluation in bringing the best potential in the Teaching and Learning of Tamil Language. You will be able to think critically and creatively in designing and experimenting the assessment tools including project based and rubrics-based assessments in the testing of aural, oral, reading and writing skills.

ACT20A Language Education and Pedagogy in Teaching of Tamil Language

The course helps you to allow student teachers to understand the importance of writing and reading research articles to create an impact in Language Education, particularly in the second language environment in Singapore. By drawing on relevant research, you will be able to learn and use various kinds of pedagogical approaches to facilitate reading

and writing in classrooms to sustain students' needs, interests and desires in language education.

ACT20B Teaching of Reading and Writing in Tamil Language

This course will include theories and practices on the teaching of reading and writing in Tamil language in schools. Reading and writing have their inter-related connection in developing a child's knowledge and language skills. These two main skills are pertinent skills in a student's life-long use of Tamil Language.

ACT40B Use of Information Communication Technology in Teaching Tamil Language

This course provides an overview of the use of Information Communication Technology (ICT) in teaching Tamil Language over the years. You will study the history of teaching Tamil Language and the tools adopted in the past.

The course broadens their understanding on the growth and usage of ICT in teaching and learning of Tamil Language according to MOE's ICT master plans – eLearning, learning portals. By assessing the various ICT tools and its' impact on teaching and learning of Tamil Language, you will acquire the skills to apply them in classroom teaching.

ACT40C Teaching of Tamil Poetry

The new course aims to deepen the student teachers' knowledge to recognize and analyse the techniques used in the writing of Tamil Poetry from classical to modern period. Student teachers will be equipped with the pedagogical knowledge to teach poetry ranging from classical to modern period.

The Teaching of Character and Citizenship Education (Tamil) and Tamil Literature (Secondary)

Table 1: CS2 Character and Citizenship Education (Tamil) and Tamil Literature Structure for Bachelor of Arts in Tamil Studies and Education (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	ACK10A	Introduction to CCE: Content, Curriculum, Pedagogy and Assessment	Core	3	-
4	ACK40A	Character and Citizenship Education and Moral Literature	Core	3	-
	ACK40B	Character and Citizenship Education and Children Literature	Core	3	-

* Student teachers reading Tamil Studies will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

ACK10A Introduction to CCE: Content, Curriculum, Pedagogy and Assessment

Student teachers will be given an overview on the content, curriculum and importance of Character and Citizenship Education (CCE) in Tamil Language. Through this course they will have a deeper understanding of the MOE guidelines and expectations of a 21st Century learner.

They will be studying different pedagogical theories and the rationales behind them. Through this they will adopt new pedagogical methods to apply in their classroom teaching to enhance learning. They will also be taught on the various methods of CCE assessment.

ACK40A Character and Citizenship Education and Moral Literature

The course aims to enlighten you on the use of moral literature in moral education through texts such as “Kondrai Venthan”, “Moothurai”, etc. You will be studying how moral literature has conveyed global

messages via simile, metaphor, literal meanings etc. Moral literature puts forth evergreen global messages that are still relevant in today's context such as respecting elders etc. Using content knowledge, you will be able to mould useful citizens.

ACK40B Character and Citizenship Education and Children Literature

The course aims to broaden your understanding on infusing the content knowledge from Children Literature into Character and Citizenship Education lessons. You will be exposed to various Children Literature texts such as children stories, poem songs, lullabies and nursery rhymes so that you may learn to infuse this knowledge purposefully into CCE lessons. You will be studying literary texts written by Azha Valliyappa and stories from the Thenali Raman stories and Peerbaal Stories.

Inter-Major Courses

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	ALS10A	Academic Discourse Skills	Core	3	-
3	AED40A	Educational Research Project^	Core	3	-
4	Academic Exercise^* (Select one, corresponding to AD Major)				
	AAA40C	Academic Exercise: Art	Core	6	-
	AAB40D	Academic Exercise: Biology	Core	6	-
	AAC40B	Academic Exercise: Chinese Studies	Core	6	-
	AAD40E	Academic Exercise: Malay Studies	Core	6	-
	AAE40B	Academic Exercise: English Language & Linguistics	Core	6	-
	AAG40C	Academic Exercise: Geography	Core	6	Student teachers must have done or be concurrently doing AAG40D
	AAH40A	Academic Exercise: History	Core	6	-
	AAI43G	Academic Exercise: Music	Core	6	-
	AAM40B	Academic Exercise: Mathematics & Computational Thinking	Core	6	-
	AAP40D	Academic Exercise: Physics & Energy Studies	Core	6	AAP10A, AAP10B, AAP10C, AAP10D
	AAQ40C	Academic Exercise: Family and Consumer Sciences	Core	6	AAQ10, AAQ20 and AAQ30 Series
	AAR40A	Academic Exercise: English Literature	Core	6	-
	AAT40E	Academic Exercise: Tamil Studies	Core	6	-
	AAU40D	Academic Exercise: Drama	Core	6	-
	AAY40B	Academic Exercise: Chemistry	Core	6	-
	APA40D	Academic Exercise: Sport Science	Core	6	-
	Practicum				
	APR40A	Teaching Practice 2	Core	10	APR30A

^ This course spans two semesters.

* Student teachers should approach their respective Departments for project details and the assignment of supervisors.

AAA40C Academic Exercise: Art

This course will engage you in developing an arts practice related research that examines how art practices can uncover distinct knowledge and different research approaches. You will manufacture a body of work, then collect and analyse data that is based on your art practices to form a written exegesis in which you will articulate your findings underpinned by research question and proposal that you develop under the guidance of an appointed supervisor.

AAB40D Academic Exercise: Biology

In this course, the student will carry out a short research project in Biology, either theoretical or experimental, under the supervision of an academic staff. The research topic will vary from project to project, and the project may be crafted to match the student and supervisor's topics of interest. Students will learn how to formulate a research proposal and experience the process of gathering data. They will also learn to work closely with their mentors to learn the techniques of analysing data to draw proper inferences. Students will present and communicate their projects as a research paper and a poster.

AAC40B Academic Exercise: Chinese Studies

This course introduces to student teachers all phases of the research process through inquiry-based learning strategies. These include the formulation of a research problem, the setting of hypotheses, the design of experiments, data collection and analysis, and the discussion of results. This course provides student teachers opportunities for investigations in a topic of their choice in Chinese linguistics or Chinese literature under the guidance of a research mentor.

AAD40E Academic Exercise: Malay Studies

This course provides an opportunity for student teachers to do independent study and research in a topic of their choice in Malay Language under the guidance of an ALC supervisor/research mentor. Student teachers use this opportunity to explore an area of study or issue that relates to their academic and/ or professional interests. The academic exercise is an excellent chance for focused reading, study, and research. Subject to the approval of the Department, student teachers will choose a supervisor whose expertise matches with the topic he/she intends to research on.

AAE40B Academic Exercise: English Language & Linguistics

This course provides an opportunity for undergraduate student teachers to do independent study and research in a topic of their choice in English Language under the guidance of an ELL staff member. Student teachers use this opportunity to explore an area of study or issue that relates to their academic and/ or professional interests. The academic exercise is an excellent chance for focused reading, study, and research. Subject to the approval of the Department, student teachers will select a topic and be matched with a research mentor.

AAG40C Academic Exercise: Geography

This course acts as the capstone to complete the experience in conducting Geography fieldwork oversea, collecting and analysing primary data, and presenting and defending research results before a committee of peers and professors. It is the natural follow-on course to AAG40D Geographical Methods and Fieldwork, which focused on the preparation for and completion of the international field experience. At

the end of the course, students will have a full understanding of how to undertake and successfully complete a field-based research project.

AAH40A Academic Exercise: History

This capstone course requires you to apply and refine the disciplinary skills of primary research, source reading and interpretation, and crafting a historical argument in relation to a topic of their choice. You will conduct your research project under the direct supervision of a faculty member and they are expected to present your findings in an in-class symposium and in a final thesis of not more than 10,000 words.

AAI43G Academic Exercise: Music

This course will engage student teachers in developing a research project that examines how music and music education are applied, practiced, and theorized both in Singapore and internationally. Student teachers will select a musical field of study for research (e.g., music education, performance studies, conducting studies, musicology, ethnomusicology, and music analysis). The study will contribute towards a scholarly thesis and a presentation, in which they will articulate and defend their findings and learning based on the research proposal developed under an appointed supervisor’s guidance.

AAM40B Academic Exercise: Mathematics & Computational Thinking

The Academic Exercise provides student teachers an opportunity to engage in independent learning and research under the guidance of an academic staff. It gives you a chance to explore topics that may not be covered in the regular curriculum, and to investigate and solve mathematical problems related to those

topics. This Academic Exercise enables you to further hone your problem solving and communication skills.

AAP40D Academic Exercise: Physics & Energy Studies

Student teachers taking Physics as AD Major should be exposed to the various stages of research work to allow them to supervise and facilitate student projects in school and to enable them to take up higher degree by research in the future. The aim of this course is to provide student teachers with research experience.

AAQ40C Academic Exercise: Family and Consumer Sciences

This course is designed to provide student teachers with the opportunity to complete a project or study that demonstrates their ability to analyse, synthesize, use and integrate skills and knowledge gained from previous years of study in areas such as research, product development and experimental design. The project can include research of a specific problem or the development of a new product or process.

AAR40A Academic Exercise: English Literature

This course provides an opportunity for undergraduate student teachers to do independent study and research in a topic of their choice in English Literature under the guidance of an ELL staff member. Student teachers use this opportunity to explore an area of study or issue that relates to their academic and/ or professional interests. The academic exercise is an excellent chance for focused reading, study, and research. Subject to the approval of the Department, student teachers will select a topic and be matched with a research mentor.

AAT40E Academic Exercise: Tamil Studies

You will be trained on research procedures for undertaking your Academic Exercise on Tamil language, literature, and pedagogy. The course will cover various procedures of producing an Academic Article including various analysis methods such as qualitative analysis, quantitative analysis, research findings etc. You will also be taught on the importance of writing Academic Article with components of Tamil Language, Education and Literature. Through these, you will be able to conduct an academic exercise under the supervision of a faculty member.

AAU40D Academic Exercise: Drama

This course will engage you in developing an arts-based research project that examines how Theatre and Drama Education are applied, practiced, and theorized in the Singapore context and further afield. This will include drawing on script, performance, and drama-based methods such as performance ethnography, verbatim theatre, playbuilding-as research and researching practice in theatre sites, performance laboratories and classrooms. You can engage in topics such as the performing body, theatre history and historiography, theatre spaces and scenography, the teacher as performer, the performativity of the classroom and theatre pedagogies, to investigate particular research paradigms used in the field. You will collect and analyse data that contributes to a brief thesis in which you will articulate their findings based on a research question and proposal that they develop in the Research Frames for Theatre and Drama Education course.

AAY40B Academic Exercise: Chemistry

This course exposes student teachers to all phases of the research process through inquiry-based learning strategies. It requires specialized concepts and lab skills acquired in earlier courses taught in either physical, analytical, inorganic or organic chemistry and thus can only be offered at this juncture.

AED40A Educational Research Project

This is an introductory course into research. Student teachers will work with a faculty mentor to complete a research project on educational topics. The objectives of the course are to help student teachers gain an understanding of the scientific methods behind research; learn methods of designing, collecting, analysing and interpreting data using examples from a variety of specialty areas in education; conduct a research project that helps student teachers to think more critically about research in general.

ALS10A Academic Discourse Skills

This is a foundation course on academic writing in which we explore and study the practice and conventions of communicating in an academic setting in the 21st century such as representing academic knowledge visually and the ethical use of AI. We discuss some of the complex issues surrounding academic literacy, engage in the critical analysis of academic texts (both the ones we read and the ones we write), and examine how to produce the kinds of writing that are valued at the university. Specifically, our focus will be on critical reading, researching, and writing in an academic context. We will look at what it means to be a critical reader – one who is able to evaluate and respond appropriately to academic texts and question prompts. We will also examine what it

means to be a critical writer – one who is able to formulate workable research questions on his/her own, critically evaluate and present research findings and who is able to use language purposefully and appropriately to accomplish specific rhetorical goals.

APA40D Academic Exercise: Sport Science

As part of NTU's curriculum, you are required to undertake a research project supervised by academic staff. This project involves in-depth study, investigation and testing in any of the areas/courses offered on the programme. You are required to develop a project execution plan with your supervisor, develop and deliver a poster presentation, submit a formal report upon the completion of the project and do a project viva with your supervisor.

APR40A Teaching Practice 2

In this 10-week Teaching Practice 2, the student teachers will build up their skills and knowledge in a step-wise manner. They will develop planning and delivery skills, followed by classroom management and assessment skills. In addition, to ensure that the student teachers have a holistic experience, they will also be provided opportunities to explore other aspects of a teacher’s life besides classroom teaching, for example, observing how CCAs are managed.

Interdisciplinary Collaborative Core

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AED10H	Group Endeavours in Service Learning	Core	3	-
	AED10J	Group Endeavours in Service Learning (for DMP Upgraders only)	Core	2	DED111
	ALK10B	Communication Skills for Teachers	Core	2	-
	CC0006	Sustainability: Society, Economy and Environment	Core	3	-
	HY0003	Ethics and Social Contexts of Education	Core	2	-
2	AED23 K/L/M	Digital Literacy for the Net Generation / Digital and Media Literacy / Computer Literacy through Coding and Applications	Pres	3	Select 1 digital literacy prescribed elective +^
	AMX20A	Multicultural Studies: Appreciating and Valuing Differences	Core	3	-

+ Select 1 course from the following choices:
AED23K or AED23L or AED23M

^ Student teachers reading a Minor in Mathematics & Computational Thinking must take AED23M Computer Literacy through Coding and Applications.

AED10H Group Endeavours in Service Learning

Group Endeavours in Service Learning (GESL) is a mandatory two semester service-learning community engagement project for all student teachers. It involves community outreach and engagement and provides student teachers with the opportunity to 'learn to serve' and 'serve to learn' within local communities. Working in teams of 8 to 10, student teachers co-design and implement a service-learning project in partnership with one or more community organisations. GESL provides the opportunity for groups to broaden their knowledge and understanding of the community needs and challenges. GESL also seeks to empower student teachers through a hands-on approach of organizing service-learning projects that meets both the identified community needs and student teachers' learning objectives. Through the

experience of conducting a service-learning project, student teachers will cultivate important skills and competencies such as needs analysis, project management, teamwork, decision-making, and empathy. In addition, they develop social-emotional competencies that are essential for their future roles as educators and community leaders.

AED10J Group Endeavours in Service Learning

Group Endeavours in Service Learning (GESL) is a mandatory 1AU service-learning community engagement course for all Year 1 student teachers. AED10J is designed for DMP upgraders who have completed the 1AU GESL course. Building on their prior service-learning experience, the course provides student teachers with further opportunities to “learn to serve” and “serve to learn” through sustained individual engagement with local communities. The course broadens student teachers’ understanding of community needs, social issues, civic responsibility, and the learning theories and reflective cycles that underpin service-learning. Through individual participation and guided reflection, student teachers critically examine their personal growth, values, social awareness, and emerging professional identity, while considering the relevance of service-learning to their future roles as educators.

ALK10B Communication Skills for Teachers

This is a practical course designed to expose you to the oral and written skills necessary for effective communication as teachers in a variety of professional contexts and with diverse and multicultural audiences. The course tutorials include active tasks to analyse and improve speaking skills as well as exercises and groupwork tasks involving metacognitive processes

and communication strategies across different modes of communication. You will have access to practical instruction and exercises to develop vocal healthcare and vocal quality, with an emphasis on good voice production, pronunciation and articulation.

AED23K Digital Literacy for the Net Generation

This course will equip the learners with a broad set of skills and competencies in using digital tools and devices so that they can thrive in a knowledge-based and technology-driven world. This hands-on course will introduce some basic and practical digital skills to search and evaluate online information; collaborate and solve real-life problems; co-create and share knowledge in a safe and responsible manner. It will enable them to harness the power of digital technology to achieve their educational, personal, and professional pursuits.

Learners enrolled in this course will be introduced to a wide range of multimedia, productivity, communication, and research tools. They will also explore various digital technologies to develop knowledge and skills for study, work, and everyday life.

AED23L Digital and Media Literacy

Digital media and AI technologies shape how people communicate, learn, participate, and understand the world today. From memes and algorithmic feeds to AI-generated images, fake news, and platform cultures, digital environments are increasingly shaped by complex social, cultural, political, and technological forces. This course introduces student teachers to digital and media literacy as an interdisciplinary field concerned with meaning-making, representation, participation, power, and ethics in digital spaces.

Students will critically examine contemporary digital phenomena including misinformation, algorithmic systems, AI in education, representation and bias in generative AI, and issues of digital wellbeing. Through analysis, discussion, creative production, and project work, students will develop practical and critical skills for navigating digital media environments and for designing meaningful digital literacy practices within educational contexts.

AED23M Computer Literacy through Coding and Applications

This course aims to equip student teachers with computer literacy, especially an appreciation of three scales within which computers work in the real world, i.e., the user perspective of things (mesoscale), the electronic aspects of the machine and coding to make it work (microscale), and the internet of things (macroscale). There will be special emphasis on the acquisition of coding skills and how to apply them in some real-world contexts, such as HTML for the development of webpages, and use of macros and VBA programming in Excel worksheets.

AMX20A Multicultural Studies: Appreciating and Valuing Differences

This course challenges you to reflect upon how race, ethnicity, culture and class have been defined, applied and managed in Singapore society. You will also be invited to consider how these definitions can be improved to build community amidst changing social and regional demographics. The goal of this course is to understand the key concept of multiculturalism as a social practice in everyday contexts, while appreciating the importance of differences and diversity to an open and more inclusive society. You will also have the opportunity to observe differences in

your everyday situations and reflect on how a genuine multiculturalism can invoke empathy, awareness, understanding, justice and respect. These values will grow in importance in educational contexts, as you interact with your learners and in the teaching community at large.

CC0006 Sustainability: Society, Economy and Environment

The course aims to inspire a long-lasting mindset of awareness, critical thinking, curiosity, and collaboration across disciplines through the lens of current sustainability challenges. You will learn to analyze sustainability issues from different perspectives (social, economic, and environmental) and on different scales (individual, organizational, Singaporean, and global). You will then use these skills to discuss and propose solutions for sustainability challenges facing Singapore and the world. By the end of the course, you would have developed an awareness for, and a system thinking approach to, sustainability, which you can continue to develop no matter which discipline or career path you choose to embark on.

HY0003 Ethics and Social Contexts of Education

The aims of this course are to: introduce students to key ethical ideas relevant to education such as human flourishing, constructivism, social justice as well as provide opportunities for them to dialogue and deliberate on ethical aims of education; introduce students to influential and canonical thinkers of education, both classical and canonical, so they will gain multiple perspectives of ethical ideas; enable students to apply ethical idea to critically analyze major education policies and initiatives in Singapore; and to enable students to distil, discern and clarify their

own beliefs about the purposes of education and their role as teachers in developing moral persons.

Broadening & Deepening Electives

Minor in Primary Level Subjects (NIE)

Student teachers in the Primary track are to read a Minor in Primary Level Subjects (PLS) that is aligned with their two Curriculum Studies (CS) subjects. They will take two of the PLS sets of courses below.

Art

Course Code	Title	Course Category	No. of AUs	Pre-requisites
ASA10B	Twenty-First Century Learning through Theatre and Drama	Core	3	-
ASA30B	Pedagogical Practices in Art Classroom	Core	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.
ASA10B is cross listed with AAU28C, offered as a Broadening & Deepening Elective (BDE).

ASA10B Twenty-First Century Learning through Theatre & Drama

This course examines how drama can be applied as a 21st Century pedagogy. Participants will explore how they can nurture young people by infusing drama into the classroom in order to begin to equip young people with the life skills necessary for be active and concerned 21st Century citizens. In this rapidly changing world, growing importance is being place of the need for young people to develop 21st century skills in order to become skilled members of the global workforce. This course will examine and apply why and how Drama Education has long been recognized for its ability to foster social and self-awareness, self-confidence, empathy, communication skills, critical thinking, intercultural understanding, and collaboration and negotiations skills.

ASA30B Pedagogical Practices in Art Classroom

This course provides student teachers with a detailed examination of the General Art Programme (GAP) syllabuses in Singapore schools and the understanding of pedagogical practices in the classroom. The course will also discuss concerns, contexts and possible consequences of various pedagogical practices of art.

English Language

Course Code	Title	Course Category	No. of AUs	Pre-requisites
ASE10A	Grammar	Core	2	-
ASE20A	Exploring Language in Texts	Core	2	-
ASE40B	Current Trends in English Language Education in the Primary School	Core	2	-

ASE10A Grammar

This course is an introduction to the pedagogical grammar of English with a focus on equipping student teachers with a deep understanding of English grammar and familiarizing them with the metalanguage for describing the English language. Upon completion of the course, student teachers will be able to understand, identify, analyse and articulate some of the main structures of English sentences and relate these to the English Language syllabi and other teaching documents.

ASE20A Exploring Language in Texts

On this course, student teachers will study both fiction and non-fiction texts written for children and will learn how to analyse these types of texts in terms of purpose, audience, context, and culture. Student teachers will be taught how to recognize the different organizational structures of texts, as well as different predominant language features. They will realize how these structures and language features are used to achieve the different intended purposes of various texts. Through tutorial activities, student teachers will learn how all these features of texts work together and are used by readers and writers to communicate and construct meaning.

ASE40B Current Trends in English Language Education in the Primary School

The aim of this course is to provide student teachers with an understanding of the tenets of multiliteracies and multimodality, including digital technologies, as a key current focal area in English language education in the primary school. The course will cover ways of analysing and evaluating multimodal texts, such as print advertisements, films, on- and off-line news, and picture books to develop student teachers' textual and linguistic sensitivity and awareness. Practical tasks throughout the course will enable student teachers to develop as critical viewers and representers of texts. Understandings developed on the course will inform student teachers' pedagogic practice in light of the evolving communicative social and pedagogic landscape.

Mathematics

Course Code	Title	Course Category	No. of AUs	Pre-requisites
ASM10C	Number Topics	Core	2	-
ASM10D	Geometry Topics	Core	2	-
ASM40A	Further Mathematics Topics	Core	2	-

ASM10C Number Topics

This course aims to build up your knowledge, deepen your understanding, and hence improve your confidence in the teaching of the core Number concepts which form part of the Singapore Primary Mathematics Syllabus. These include: the historical evolution and symbolic meaning of our modern Hindu-Arabic numeration system, extended number systems such as negative and rational numbers, divisibility and the properties of prime numbers, and problem-solving involving ratios, proportions, and rates.

ASM10D Geometry Topics

This course aims to build up your knowledge, deepen your understanding, and hence improve your confidence in the teaching of the core Geometry concepts which form part of the Singapore Primary Mathematics Syllabus. These include: historical origins of axiomatic approaches to geometry, the properties of extended figures, length area and volume measurement, and transformations and the generation of symmetrical objects.

ASM40A Further Mathematics Topics

This course aims to build up your knowledge, deepen your understanding, and hence improve your confidence in the teaching of the Core Concepts which form those parts of the Singapore Primary Mathematics Syllabus taught at the Upper Primary level and which do not fall under either Number Topics

or Geometry Topics, including: algebraic problem solving, discrete mathematics, representation of data and statistical measures.

Music

Course Code	Title	Course Category	No. of AUs	Pre-requisites
ASI40A	Composing	Core	3	-
ASI40B	Ethnomusicology	Core	3	-

ASI40A Composing

This course aims to develop your depth and breadth in composition through exposure to diverse musical styles and genres. You will examine the evolution of Western compositional styles over the centuries, explore the traditional music of Singapore and its surrounding region, and investigate approaches to composing for visual media and text. Through shorter exercises, you will try your hand at imitating different styles, developing your technique towards a more substantial semester composition on a topic of personal interest.

ASI40B Ethnomusicology

This course will involve an advanced study of the theory and methods in ethnomusicology. It will emphasize the importance of video techniques and technology in ethnomusicological fieldwork studies. The course will also give a broad and general introduction mainly on the musical and cultural practices of both Mainland and Insular Southeast Asia.

Physical Education

Course Code	Title	Course Category	No. of AUs	Pre-requisites
APS10A	Curriculum Gymnastics	Core	2	-
APS20A	Dance	Core	2	-
APS20B	Track and Field	Core	2	-

APS10A Curriculum Gymnastics

Gymnastics is one of the learning areas in the Physical Education Teaching and Learning Syllabus 2016. This course provides you with an understanding of the critical movement skills and concepts of teaching gymnastics in the primary school. It will introduce curriculum gymnastics through a developmental approach that allows participants to explore movement themes largely on floor activities, gradually progressing from simple to complex apparatus designs. More advanced floor and apparatus skills will also be taught with a focus on progression as well as safety.

Emphasis will be on the cognitive and affective development of the participants through appropriate pedagogical styles, be it using direction instructions or in a more exploratory styles of teaching. You will complete the course with a heightened level of confidence and personal conviction for understanding the teaching of gymnastics in a progressive, creative and safe manner.

APS20A Dance

Dance is one of the core activities in the PE syllabus. This course aims to equip you with the knowledge and skills so that you are able to design and facilitate the teaching of dance. These approaches include teaching methods (problem-solving, facilitation, command style, reciprocal) and resource for the planning and instruction of different dance genres. It

also aims to give you a chance to discover the creativity in them and draw on the elements of dance to create your own dances. Sport science knowledge will be enlisted to facilitate the learning of dance skills.

APS20B Track and Field

This course is designed to impart the necessary skills and knowledge for teaching Athletics (track and field events) to youths in a primary / secondary school setting.

You will be introduced to developmentally appropriate teaching approaches. Relevant sport science knowledge, assessment tools, and the use of information technology will be incorporated.

Science

Table 1: For Biology Major student teachers

Course Code	Title	Course Category	No of AUs	Pre-requisites
ASK10B	Topics in Physical Science for Primary Science Teaching	Core	3	-

Table 2: For Physics & Energy Studies Major student teachers

Course Code	Title	Course Category	No of AUs	Pre-requisites
ASK40B	Topics in Biological Science for Primary Science Teaching	Core	3	-

Table 3: For student teachers reading other AD Majors

Course Code	Title	Course Category	No of AUs	Pre-requisites
ASK10B	Topics in Physical Science for Primary Science Teaching	Core	3	-
ASK40B	Topics in Biological Science for Primary Science Teaching	Core	3	-

ASK10B Topics in Physical Science for Primary Science Teaching

This course deals with the theoretical and practical aspects of Physical Science topics selected from the new Primary Science Curriculum. The topics include matter and materials, work, forms of energy and conversions, linear motion, forces, temperature and heat, light, magnetism, and electricity.

ASK40B Topics in Biological Science for Primary Science Teaching

This course 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.

Social Studies

Course Code	Title	Course Category	No. of AUs	Pre-requisites
ASL10A	Disciplinary Foundations in Primary Social Studies: Geography	Core	3	-
ASL10B	Disciplinary Foundations in Primary Social Studies: History	Core	3	-

ASL10A Disciplinary Foundations in Primary Social Studies: Geography

This course aims to develop in students a geographical perspective towards citizenship education in the primary social studies curriculum. Students will acquire conceptual knowledge of selected topics on the geography of Singapore and Southeast Asia that are linked to the primary social studies syllabus. Relevant field experience will be provided and students will have an opportunity to do a geographical project based on a current issue that Singapore faces.

ASL10B Disciplinary Foundations in Primary Social Studies: History

This course aims to provide students with the skills and knowledge of the discipline of History that underpin the primary Social Studies curriculum. In this course, students will learn the overarching historical concepts and have opportunities to practice historical skills such as source reading and analysis, carried out within the framework of historical inquiry. Students will also acquire knowledge of selected topics from the histories of Singapore, Southeast Asia and early world civilizations and will be introduced to available historical resources that will enable them to meaningfully teach the primary school Social Studies curriculum.

Academic Discipline Minor

Student teachers in the Secondary track are required to read a Minor corresponding to their second Curriculum Studies (CS) subject.

Minor in Art (NIE)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAA10A	Visual Literacy	Core	3	-
	AAA10B	Drawing	Core	3	-
	AAA10C	Painting (2D Studies 2)	Core	3	-
	AAA10D	Sculpture (3D Studies 1)	Core	3	-

For details of the courses listed above, please refer to AD Major: Art.

Minor in Biology (NIE)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAB10A	Evolution, Diversity and Ecosystems	Core	3	-
	AAB10B	Physiological and Biochemical Basis of Life	Core	3	-
	AAB10C	Basic Molecular Genetics and Microbiology	Core	3	-
	AAB10D	Cell Structure and Function	Core	3	-

For details of the courses listed above, please refer to AD Major: Biology.

Minor in Chemistry (NIE)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAY10A	Inorganic Chemistry I	Core	3	-
	AAY10B	Physical Chemistry I	Core	3	-
	AAY10C	Physical Chemistry II	Core	3	AAY10B
	AAY10D	Organic Chemistry I	Core	3	-

For details of the courses listed above, please refer to AD Major: Chemistry.

Minor in Drama (NIE)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAU10A	Acting 1: The Actor's Voice and Body	Core	3	-
	AAU10B	Theatre and Drama in Society: Historical Perspectives	Core	3	-
	AAU10C	Acting 2: Physical Theatre and Embodying Character	Core	3	-
	AAU10D	Contemporary Theatre: Styles and Conventions	Core	3	-

For details of the courses listed above, please refer to AD Major: Drama.

Minor in English Language & Linguistics (NIE)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAE10B	Language in Context	Core	3	-
	AAE10C	Exploring the Grammar of English	Core	3	-
	AAE10D	Exploring the Words and Sounds of English	Core	3	-
	AAE10E	Introduction to Linguistics	Core	3	-

For details of the courses listed above, please refer to AD Major: English Language & Linguistics.

Minor in English Literature (NIE)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAR10A	Exploring British Literature	Core	3	-
	AAR10B	Introduction to Literature	Core	3	-
	AAR10D	Reading Strategies	Core	3	-
	AAR10E[#]	Singapore Literature in English	Core	3	-

[#] Applicable for July 2024 intake onwards. For earlier intakes, the equivalent course is AAR10C Singapore and the Region in Literature.

For details of the courses listed above, please refer to AD Major: English Literature.

Minor in Geography (NIE)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAG10A	Elements of Physical Geography	Core	3	-
	AAG10B	Elements of Human Geography	Core	3	-
	AAG10C	Techniques in Geography	Core	3	-
	AAG10E	Singapore in the Globalized World	Core	3	-

For details of the courses listed above, please refer to AD Major: Geography.

Minor in History (NIE)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAH10A	The Historian and His Craft	Core	3	-
	AAH10B	Biography and History	Core	3	-
	AAH10C	Singapore History: The Making of a Global City-State	Core	3	-
	AAH10D	International History: From World War One to the Present	Core	3	-

For details of the courses listed above, please refer to AD Major: History.

Minor in Mathematics & Computational Thinking (NIE)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAM10A	Linear Algebra I	Core	3	-
	AAM10B	Calculus I	Core	3	-
	AAM10E	Introduction to Probability and Statistics	Core	3	-
	AAM10G	Discrete Mathematics	Core	3	-

For details of the courses listed above, please refer to AD Major: Mathematics & Computational Thinking.

Minor in Music (NIE)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAI10E	Foundation Studies in Music Education	Core	3	-
	AAI10J	Instrumental Studies 1	Core	1	-
	AAI10K*	Junior Recital	Core	2	AAI10J
	AAI10L	Baroque and Classical Musical Practices	Core	3	-
	AAI10M	Music Theory for Diverse Sonic Worlds I	Core	3	-
	AAI10N	Ethnomusicology in the Singapore Context	Core	3	-

* This course spans two semesters.

For details of the courses listed above, please refer to AD Major: Music.

Minor in Physics & Energy Studies (NIE)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAP10A	Mechanics with Laboratory	Core	3	-
	AAP10B	Thermal Physics with Laboratory	Core	3	-
	AAP10C	Electricity and Magnetism with Laboratory	Core	3	-
	AAP10D	Optics & waves with Laboratory	Core	3	-

For details of the courses listed above, please refer to AD Major: Physics & Energy Studies.

Minor in Social Studies (NIE)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAL10B	Identities in a Diverse World	Core	3	-
	AAL10C	Singapore Studies	Core	3	-
	AAL10E	Principles and Practices of Social Research	Core	3	-
	AAL10G	Globalisation: An Introduction	Core	3	-

AAL10B and AAL10C are cross listed with AAL28E and AAL28A respectively, offered as Broadening & Deepening Electives (BDEs).

AAL10B Identities in a Diverse World

This course provides students with an introduction to the concept of identity and invites them to think about key identity facets that are relevant to living in today's world of increasing diversity. The course guides students to see identity both in terms of a micro-level psychosocial process and in terms of a more macro-level sociological process, and to think about how these two processes interact. Through various learning activities, students will explore at some depths key aspects or issues relating to identity including race and ethnicity, nation/nationalism, xenophobia and racism, assimilation and integration, multiculturalism and transnationalism, class, gender, and cosmopolitanism(s).

AAL10C Singapore Studies

This course will provide you with a foundational understanding of politics, political ideologies and governance in the context of Singapore's development as a state and society. We will examine critical concepts, issues and debates that undergird important facets of any state and society and apply them to the Singapore context.

AAL10E Principles and Practices of Social Research

This course introduces students to basic principles and practices of social research, including formulating research questions, research design, basic quantitative and qualitative research skills/techniques, data collection/analysis, and research writing. Students are required to propose original social research questions and carry out empirical research to answer their questions. The course adopts a workshop approach such that at different stages of the research process, students will share and learn from peers'

research projects via presentations and discussions. The course aims to equip students with essential competencies in social research so as to better prepare them for inquiry-based social studies education.

AAL10G Globalisation: An Introduction

The term “globalisation”, having been subject to much use and abuse in both academic and lay discourses, has nowadays become something of a cliché that perhaps obfuscates more than it reveals. This course seeks to provide students with a basic, clear, and relatively comprehensive introduction to the concept. It unpacks globalisation by interrogating its definitions, general theories, and historical/social foundations, before examining in detail a number of key facets to a globalised world, including the global economy, civil society, governance, culture, everyday life, inequality, migration/mobility, and security. In addition, the course also contextualises students’ learning by making them think about what globalisation means for Singapore and Singaporeans.

Minor in Chinese Literature (NIE)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAJ10A	Cultural China I: From Beginning to Tang	Core	3	-
	AAJ10B	Cultural China II: From Song to Qing	Core	3	-
2	AAJ20A	Cultural China III: Contemporary	Core	3	-
	Select any 2 electives				
	AAJ23A	Selected Readings in Chinese Poetry	Pres	3	-
	AAJ23B	Selected Readings in Chinese Prose	Pres	3	-
	AAJ23C	Selected Readings in Chinese Novel	Pres	3	-
	AAJ23D	Selected Readings in Chinese Drama	Pres	3	-
4	AAJ43A	Sinophone Literature	Pres	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAJ10A Cultural China I: From Beginning to Tang

This course equips you with a basic understanding of the development of Chinese literature from the beginning to Tang Dynasty. Taking a multidimensional perspective, you will be guided to understand the interconnection between literature and politics, history, religion, tradition and customs, arts and economics through the critical analysis of selected literary works, thereby enhancing your literature appreciation skills and your understanding of China within that historical period.

AAJ10B Cultural China II: From Song to Qing

This course equips you with a basic understanding of the development of Chinese literature from Song to Qing Dynasty. Taking a multidimensional perspective, you will be guided to understand the interconnection between literature and politics, history, religion, tradition and customs, arts, and economics through the critical analysis of selected literary works, thereby enhancing your literature appreciation skills and your understanding of China within that historical period.

AAJ20A Cultural China III: Contemporary

This course equips you with a basic understanding of contemporary Chinese literature with its socio-cultural environment. Taking a multidimensional perspective, you will be guided to understand the interconnection between literature and politics, economics, tradition and customs and foreign affairs through the critical analysis of selected literary works, thereby enhancing your literature appreciation skills and your understanding of contemporary China.

AAJ23A Selected Readings in Chinese Poetry

This course equips you with an understanding of the source and historical development of Chinese poetry. Through the in-depth guided reading of and discussion on selected poems, it aims to equip you with the ability to analyse and appreciate Chinese poetry independently.

AAJ23B Selected Readings in Chinese Prose

This course equips you with an understanding of the source and historical development of Chinese prose. Through the in-depth guided reading of and discussion on selected prose, it aims to equip you with the ability to analyse and appreciate Chinese prose independently.

AAJ23C Selected Readings in Chinese Novel

This course equips you with an understanding of the source and historical development of Chinese novels. Through the in-depth guided reading of and discussion on selected novels, it aims to equip you with the ability to analyse and appreciate Chinese novels independently.

AAJ23D Selected Readings in Chinese Drama

This course equips you with an understanding of the source and historical development of Chinese drama. Through the in-depth guided reading of and discussion on classical drama, it aims to equip you with the ability to analyse and appreciate Chinese drama scripts and stage effects independently.

AAJ43A Sinophone Literature

This course equips you with an understanding of the source and historical development of Sinophone Literature. Through the in-depth guided reading of and discussion on selected Chinese literary works from different countries and regions besides China, it aims to equip you with the ability to analyse and appreciate the many facets of Sinophone literature independently.

Minor in Malay Literature (NIE)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAF10A	Traditional Malay Literature	Core	3	-
	AAF10B	Modern Malay/Indonesian Literature	Core	3	-
	AAF10C	Singapore Malay Literature	Core	3	-
	AAF10D	Children's and Adolescents' Literature	Core	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAF10A Traditional Malay Literature

This course introduces you to the concepts, genres, and function of literature in the traditional Malay society as influenced by its religion, culture, and history. It examines Malay thoughts and its significance as an essential part of Malay civilization. A thematic reading approach will be used to stimulate understanding the world-view on Malay traditional literature.

AAF10B Modern Malay/Indonesian Literature

This course introduces student teachers to the socio-historical development of modern Malay/Indonesian literature beginning from the 20th century through the present. It provides a thematic reading of major works to allow student teachers to appreciate and analyse Malay/Indonesian literary texts.

AAF10C Singapore Malay Literature

The course discusses the development of Malay literature in Singapore from the 19th Century to date. It includes the cultural and historical connections of the post-independence era, to the Malay literary movements, particularly the Singapore Malay literary circles and the growth of literary genres. The course highlights how local writers construct ideas of modernity, identity and their engagement with globalisation in their works.

AAF10D Children's and Adolescents' Literature

This course explores the role and function of literature in children's and adolescents' psychological development. It exposes you to the various styles, techniques, and thematic conventions in children's literature. You will examine selected works and explore its application in school context.

Minor in Tamil Literature & CCE (NIE)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAK10B	Classical (Sangam) Literature	Core	3	-
2	AAK20A	Tamil Epic Literature 1	Core	3	-
	AAK20B	Tamil Epic Literature 2	Core	3	-
	AAT20G	Tamil Language, Moral Literature and CCE	Core	3	-
3	AAK30A	Devotional Literature and Minor Literary Genre	Core	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAK10B Classical (Sangam) Literature

You will have a deeper understanding of the Tamil Classic Sangam Literature as a 21st Century learner. You will be taught the poetic and creative literary techniques through Sangam Literature. You will learn new pedagogical methods to apply in your classroom teaching. Values will be taught through Sangam Poems.

AAK20A Tamil Epic Literature 1

You will understand the history of Epic Literature of the medieval period. You will study the growth and development of Epic Literature, allowing you to know the sequences and the period in which these literatures were written.

Specifically, you will be introduced to literature books that were written at that particular medieval period. Some of those books would be Silapathikaram, Manimegalai, Thembavani and Seerapuranam. From these literatures, you will learn about the Tamil kingdoms and their respective rulers, as well as the moral and ethical values, the culture and beliefs that existed in Tamil Nadu and the lifestyle that was adopted by the people.

AAK20B Tamil Epic Literature 2

The learning objective of this course is to strengthen your understanding of the two epics in the Tamil Literature - Kambaramaayanam & Periya Puraanam written by Kambar and Sekizhaar respectively. You will acquire the knowledge on the reasons for Kambaramaayanam to be a significant text in the Tamil Literature. In addition, you will also study the selected songs in Periya Puraanam. Specifically, you will learn that despite being an adaptation of Vaalmigi Ramaayanam, Kambaramaayanam has established a place for itself. You will also learn that Kambaramaayanam is not only embraced in Tamil Nadu but has also spread to countries like Thailand and Indonesia. You will be able to identify that characterisation, dramatical structure and dialogues are the reasons for Kambaramaayanam's significance. You will learn how Periya Puraanam depicts the devotion towards God. You will gain knowledge on the 63 devotees (Naayanmaargal) via the stories in the epic. You will also learn the lifestyle, usage of words and things used by these devotees. Through which, you will comprehend that devotion is based on good principles, sanity, and sincerity.

AAK30A Devotional Literature and Minor Literary Genre

This course aims to provide you with a broad understanding of Devotional Literature. The 2 genres are Tamil Devotional Literature and Minor Literary Genre (Sittrilakkiyam). You will be exposed to various texts in this genre. Through this, you will understand how these texts guided people to live by faith and virtues. Sittrilakkiyam flourished in the Nayakkar Age (AD 1200 - 1600). These recount the lives of notable figures, ordinary men and women in a poetic manner. You will assess and analyse the texts, thus gaining an

overview into the beliefs and importance of faiths in the past.

AAT20G Tamil Language, Moral Literature and CCE

This course allows you to understand the reasons which led to the creation of many moral literature texts during the post-Sangam period / Kalappirar (களப்பிரர்) period (A.D. 200 - A.D 600). These creations were compiled and titled Pathinenkilkanakku. You will be exposed to selected poems from Pathinenkilkanakku (பதிணென் கீழ்க்கணக்கு). You will learn in depth about Thiruvalluvar, his school of thoughts and selected poems from Thirukkural, a comprehensive manual of ethics. In addition, you will also learn about some of the literature written during this Period such as Naaladiyaar (நாலடியார்), Pazhamozhi 400 (பழமொழி நானூறு) and Mudhumozhi Kaanji (முதுமொழிக்காஞ்சி). You will be able to elicit core values (respect, responsibility, resilience, integrity, care and harmony) from these poems which are fundamental for a person of good character and a useful citizen of Singapore and be able to demonstrate and apply these works at various domains such as self, family, school, community, nation and the world.

Other Broadening & Deepening Electives

Broadening & Deepening Electives:

Art

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
Art	AAA08B	Fashion and Design: Wearable Art as a Second Skin	3	-
	AAA08C	Expressive Drawing: Developing Personal Approach and Style	3	-
	AAA08D	Abstract Painting: Why it's Here and How it's Made	3	-
	AAA08G	Special Topics in the Arts 1	3	-
	AAA08H	Special Topics in the Arts 2	3	-
	AAA18D	Life Drawing (2D Studies 3) **	3	-
	AAA18E	Drawing	3	-
	AAA18H	Painting with Oil and Acrylic	3	-
	AAA18J	Painting with Watercolour	3	-
	AAA18K	Communication Design	3	-
	AAA18L	Silkscreen Printing	3	-
	AAA18M	Batik	3	-
	AAA18Q	Printmaking	3	-
	AAA18R	Sculpture (3D Studies 1)	3	-
	AAA28C	Digital Media and Visual Arts: Still imaging	3	-
	AAA28D	Arts Across the Borders	3	-
	AAA28E	Visual Arts in Asia	3	-
	AAA28H	Traditional and Creative Chinese Painting	3	-
	AAA28J	Digital Media and Visual Arts: Moving Image	3	-
	AAA28M	Art and the Financial Markets	3	-
	AAA28Q	Interactive Art	3	-
	AAA28R	Ceramics (3D Studies 2)	3	-
	AAA28S	Ceramics II	3	-
	AAA28T	Performance Art	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAA08B, AAA08C, AAA08D, AAA18J, AAA18L, AAA28D, AAA28H, AAA28M, AAA28Q, AAA28S and AAA28T are cross listed with AAA23B, AAA23C, AAA23D, AAA23H, AAA23J, AAA23L, AAA23M, AAA23Q, AAA23R, AAA23S and AAA23T respectively. These courses will be cross listed and offered to crossover and returning teachers as upgrading courses.

** AAA18D - Life Drawing (2D Studies 3) utilizes human nude models. Student's discretion is advised.

AAA08B Fashion and Design: Wearable Art as a Second Skin

This course frames Fashion Design as wearable art. You will understand related terminology, and learn fundamental machine techniques to create visualisation of thoughts as a three dimensional design worn on the body. You will engage in creative problem solving through the engineering of a textile medium into a structured wearable garment.

All components will be demonstrated; there is no requirement for prior experience or knowledge.

AAA08C Expressive Drawing: Developing Personal Approach and Style

You will learn a brief history of expressive style in drawing and about related drawing practices in contemporary art. Through self-directed research you will find, explore and investigate the work of artists who use expressive mark-making in drawing. You will learn a variety of traditional and frequently used drawing techniques and will explore them using their associated materials. After becoming familiar with techniques and materials and going through class exercises that will hone your skills, you will begin to research and develop your own area of exploration. Through the development and making process you will acquire working methods, research skills and technical knowledge necessary to successfully realize your own uniquely expressive drawings. You will also develop a basic understanding of the history of drawing and an awareness of its continuing relevance in contemporary art.

AAA08D Abstract Painting: Why it’s Here and How it’s Made

You will learn a brief history of abstraction in art and will learn about various ways that abstraction

continues in contemporary art. Through a self-directed search you will begin to explore areas of abstraction and will start to use your own ideas and preferences as a means of developing a studio art-making experience. You will learn basic painting techniques used in many abstract artworks and will learn about the use of alternative materials and methods. In consultation with the lecturer, you will produce two major paintings on canvas with four accompanying preparation works on paper that demonstrate colour, paint technique, and composition experiments and other evidence of your working process. Through the development and making process you will acquire working methods, research skills and technical knowledge necessary to successfully realize your own artworks. You will also develop an understanding of abstraction in art and an awareness of its relevance in contemporary and historical art issues.

AAA08G Special Topics in the Arts 1

This course aims to introduce to students various aspects of art-making, design and creation, in the fields of the visual arts, music or drama. It also aims to provide students with an experience of learning from, and working with, a renowned professional local or international artist from the respective industry.

AAA08H Special Topics in the Arts 2

This course aims to introduce to students various aspects of art-making, design and creation, in the fields of the visual arts, music or drama. It also aims to provide students with an experience of learning from, and working with, a renowned professional local or international artist from the respective industry.

AAA18D Life Drawing (2D Studies 3)

This studio course offers the opportunity to study the figure from first hand observational drawing from both academic tradition and contemporary artistic frameworks. You will be exposed to a range of skills and approaches through practical studio projects that will help you nurture expressive processes and a personal response in representing the figure.

AAA18E Drawing

This course investigates the nature of drawing from the perceptual domain, using drawing as a vehicle for visual inquiry to record from observation. This course is for anyone who cannot draw but would like to learn, and will equip you with the skills to draw anything you see.

AAA18H Painting with Oil and Acrylic

This course aims to highlight the beauty and techniques that goes into completing a painting. While there is significant emphasis on practical hands-on exercises, the course also aims to develop your visual literacy and aesthetical sensibilities. At the end of the course, you should be able to discern and answer the question – “what makes a good painting?”.

AAA18J Painting with Watercolour

This course aims to highlight the beauty and ephemeral qualities of watercolour painting. You will be progressively taught various techniques to achieve different results. There will be an emphasis on hands-on practice as well as keynotes on how to appreciate the visual qualities of watercolour paintings. You first be taught basic drawing and paintings skills, after which you are encouraged to take a more

experimental and gestural approach to watercolour painting. At the end of the course you should be able to discern and answer the question – “what makes a good watercolour painting?”.

AAA18K Communication Design

This studio course introduces you to learn about communicating ideas or information through arrangement of visual elements within a 2D through the use of space, type and image. You will acquire basic graphic design skills and realise impactful and meaningful 2D design works.

AAA18L Silkscreen Printing

This course is an introduction to silkscreen printing as an artistic practice. You will explore the processes of screen-printing techniques through a thematic approach.

AAA18M Batik

This course introduces you to contemporary batik which is founded on the age-old tradition of wax resist. You will achieve a basic level of competency to the craft of contemporary wax resist and dye colours and to apply resist and dye colours on fabrics through understanding of materials and resist process and characteristics. You will also learn to translate ideas appropriate to the materials and techniques onto fabrics as surface designs.

AAA18Q Printmaking

The course aims to enable you to extend your knowledge and skills in the basic concepts of printmaking process and experiment with various printmaking techniques, sufficiently achieving

independent practice in a chosen medium. The course provides a positive starting-point for you to further your exploration and development of printmaking's rich possibilities. The course also allows you to increase your capacity for image-making skills, learn more about printmaking and establish good workshop practices. The course further aims to enable you to communicate personal ideas and emotions in an artwork by suffusing the format of printmaking techniques.

AAA18R Sculpture (3D Studies 1)

This studio course encompasses core sculptural concepts and techniques, including casting, molding and building with materials such as plaster, clay and wood. You will consider the use of three-dimensional expressive and representational media and its role in the formation of symbolic systems. Using a combination of studio-practice and theory, you will develop your own competence in three-dimensional representation and expressive processes.

AAA28C Digital Media and Visual Arts: Still Imaging

This studio course introduces contemporary digital photography through the experience of technical, expressive and conceptual methods of digital image making. You will be exposed to camera handling techniques, composition skills, studio photography and experimental imaging. You will acquire working methods, visual research skills and knowledge necessary for the successful implementation of meaningful and aesthetic lens- based artwork.

AAA28D Arts Across the Borders

A study focused on the discovery and understanding of the artistic heritage, psychogeography and socio-

cultural significances of a specific part of Singapore. “Borders” in this sense may comprise the historic, contemporary, architectural, cultural, social, political, psychic, and imaginary boundaries that define everyday life in the area. A considerable part of the course will be spent doing experiential work (drawings, maps, photography, video itself). Course work will involve comprising Situationist-inspired interventions that take as starting point the ways that this particular quarter and its inhabitants perform.

AAA28E Visual Arts in Asia

The course aims to deepen your appreciation of the visual arts of Asia. We will examine paintings, sculptures, objects and architecture from different historical periods, and will try to understand why they are made in a certain way, and why they continue to be made this way.

AAA28H Traditional and Creative Chinese Painting

You will learn basic skills of Chinese Painting, including the use of the Chinese brush, the painting of basic strokes, composition, and the use of colour. Opportunities will be provided for you to explore new ideas of combining calligraphy and painting as an attempt to create a new approach to Chinese painting.

AAA28J Digital Media and Visual Arts: Moving Image

You will be introduced to contemporary art making with digital video tools. You will experience first-hand current art making methodologies through themed based works. The course will go through the processes of concept development, basic software tutorials, production, and group critiques. Very basic knowledge of any video editing software and

possession of any kind of Digital Video Camera would be beneficial but not mandatory.

AAA28M Art and the Financial Markets

We often think of art and financial products to be different: art is unique, and financial products are interchangeable. But they are more closely related than we think.

Since the 1970s, the number of domestic and international financial transactions has grown phenomenally. The "financial industry", as we know it, not only employs a large number of people, but also consumes a great amount of resources. The various facets of finance, such as financial motives, financial markets, financial institutions and actors, are not only significant in the operations of national and international economies, but also affect societies in deep and complex ways. Some scholars have used the term “financialisation” to describe this phenomenon.

In this course, you will examine the various ways in which art interfaces with finance.

AAA28Q Interactive Art

This class will be structured around three components – studio work, the development of technical skills, and introduction to the broad field of new media / electronic and time- based arts.

The course will encourage the exploration and making of Art and interactivity through various technological tools. You will have an opportunity to learn about Interactive Art and will create engaging user interactive Art pieces that are both aesthetically intriguing, conceptually engaging, immersive and fun,

through the manipulation of simple electronic tools that is suitable for all skill levels.

AAA28R Ceramics (3D Studies 2)

This studio course investigates the use of clay, a traditional but exceptionally versatile medium in the 3D studio/classroom. It encompasses core ceramics concepts and techniques, including hand-building, wheel-throwing, glazing and firing. The learning of our cultural history through ceramic artefacts will also be incorporated.

AAA28S Ceramics II

This studio course introduces contemporary ceramics. This class is designed to engage you in more specific ceramic techniques and projects (coiling and throwing) where you will learn a more comprehensive understanding of the techniques. You will be exploring 4 aspects of visual art:

1) Production

2) Aesthetics

3) History/Culture

4) Discussion (Individual/Group)

You will learn how people use ceramics in their lives, culture and current events and how the ideals of this search have changed over time. You will explore the works of others with an aesthetic, historical and critical eye. During this course, you will be able to create many 3D objects with the use of clay as their primary medium.

AAA28T Performance Art

This course is an introduction to performance art practice and will examine how this art form remains as one of the most contentious, problematic but potent in the art world, resisting efforts by state machinery, art academics, audiences, and even artists themselves, to categorize and contain it. You will be working in a workshop class setting to explore different sets of performance art sensibilities and discourses, theoretically and practically. You are expected to share ideas, engage in open critique and collaborate on performance strategies and tools throughout this course towards designing performance works.

Broadening & Deepening Electives: Chinese Language and Chinese Literature

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
Chinese Language and Chinese Literature	AAC18A	Chinese Calligraphy	3	-

AAC18A Chinese Calligraphy

This course provides an introduction to the history and overview of Chinese calligraphy. Topics include: the fundamentals of Chinese calligraphy; tools of Chinese calligraphy; general methods and techniques of calligraphy; creative calligraphy and different formats of calligraphy.

Broadening & Deepening Electives: Drama & Performance

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
Drama & Performance	AAU08A	Theatre Games: Engagement Through Play	3	-
	AAU28A	Drama as Engaged and Collaborative Learning	3	-
	AAU28B	The Creative Classroom: Introducing Drama through Imagination and Play	3	-
	AAU28C	Twenty-First Century Learning through Theatre & Drama	3	-
	AAU28D	Voice Studies & Production	3	-
	ADP16A	Introduction to Theatre and Performance	3	-
	ADP26A	Contemporary Theatre: Styles and Conventions	3	ADP16A
	ADP26B	Theatre for Young People: Methods and Practices	3	ADP16A
	ADP26C	Acting: The Actor's Voice and Body	3	ADP16A
	ADP26D	Theatre and Technology	3	ADP16A
	ADP26E	Playwriting and Script Analysis	3	ADP16A
	ADP26G	Independent Study in Theatre	3	ADP16A
	ADP26H	Directing and Dramaturgy	3	ADP16A
	ADP26J	Traditional Theatre: Styles and Convention	3	ADP16A
	ADP26K	Contemporary Theatre in Singapore and Southeast Asia	3	ADP16A
	ADP26L	Devising Theatre: Methods and Practices	3	ADP16A
	ADP26M	Applied Theatre: Theory, Practice and Pedagogy	3	ADP16A
	ADP26N	Performance Production	3	#

Pre-requisites:

1) Open to students pursuing the Minor Study in Drama and Performance or Second Major in Theatre and Drama only.

2) ADP16A **AND** Three other Level 2 drama courses offered by NIE. One of these must be either ADP26C, ADP26E or ADP26H

3) Entry to course is also audition dependent.

Minor in Drama and Performance

ADP courses are theatre and performance electives offered to ALL students from NTU and NIE except student teachers doing Drama as an Academic Discipline. These can be taken as BDEs or as part of a 'Minor Study in Drama and Performance.' These courses introduce to students a broad range of concepts, theories, histories of, and practices in, theatre and performance:

some courses focus on theatre's relevance and engagement with contemporary and traditional society, both Western and Asian, while others offer students opportunities for more practical work in acting, playwriting and directing.

To obtain a 'Minor in Drama and Performance' a student will have to complete 5 modules in total – one Foundation Level module and four other modules. The Foundation Level module, ADP16A: Introduction to Theatre and Performance, is a pre-requisite for access to other modules.

AAU08A Theatre Games: Engagement Through Play

This course examines a range of theatre games conventionally used in a participatory classroom to build specific skills and capabilities. Student will be introduced to theatre practitioners such Augusto Boal, Viola Spolin, Clive Barker and Chris Johnstone, who have developed theatre games for actor training as well as team-building. These theories, methods and practices will be used to engage participants in a range of reflective processes, critical dialogue and physical activities that promote stronger social-emotional learning opportunities, inter-personal and intrapersonal skills, as well as civic and social awareness through activities that enhance team-building, trust, confidence, collaboration and the extension of imagination. The principles of practice that underpin the use of theatre games will be explored and explicated in relation to non-traditional theatre contexts. The course will equip student with the necessary facilitation and planning skills crucial for the incorporation of theatre games in the development of programmes to engage an intended audience. Student will learn how to design a short programme using theatre games, in order to work creatively within a range of community settings and expectations. They

will also be required to facilitate theatre games for this purpose as part of their assessment.

AAU28A Drama as Engaged and Collaborative Learning

This course will introduce key concepts and developments in the practice and pedagogy of drama as an artistic medium for engaged and collaborative learning. Through group improvisations that engage in drama conventions and practices, you will participate in thematic and issue-based processes of storytelling, scenario-building and symbolic creativity to understand how drama operates aesthetically and pedagogically as a creative, engaged and empowering process. It will introduce frameworks and methodologies that enable the facilitators to develop skills and capacities in how to apply and use drama as a medium that enhances socio-cultural and aesthetic engagement, reflexivity and agency. Drama has been used in various contexts for: artistic communication, personal development, meaning-making and empowerment. You will come to understand a range of philosophical viewpoints relating to the educative purpose and power of drama and how they are realized in practice.

AAU28B The Creative Classroom: Introducing Drama through Imagination and Play

This course critically examines and explores the theories and practices of imagination, play and their creative application using drama. You will be introduced to reflective and reflexive practice in the work of Donald Schon and Dorothy Heathcote, as well as thinking on creativity and education though the work of Lev Vygotsky, Howard Gardner and others. You will be introduced to the ‘grounded-imagination’ that the classroom is a stage, or laboratory, where

exchanges between you and the tutor through drama, can forge creative alliances for pedagogical learning essential for the 21st century classroom.

AAU28C Twenty-First Century Learning through Theatre & Drama

This course examines how drama can be applied as 21st Century pedagogy. You will explore how you can nurture young people by infusing drama into the classroom in order to begin to equip young people with the life skills necessary for be active and concerned 21st Century citizens. In this rapidly changing world, growing importance is being placed on the need for young people to develop 21st century skills in order to become skilled members of the global workforce. This course will examine and apply why and how drama education has long been recognized for its ability to foster social and self-awareness, self-confidence, empathy, communication skills, critical thinking, intercultural understanding, and collaboration and negotiations skills.

AAU28D Voice Studies & Production

This course aims to strengthen and enhance your natural voice and the use of the voice in various working contexts, particularly that of the meeting room. This course uses established approaches to develop physical and personal awareness, a feeling for the dynamics of language, and understanding of basic theory of physiology and voice production.

The course also focuses on the use of the voice in a working environment: for professional presentations for diverse audiences and incorporates technology to enhance presentation. You will be introduced to how sound is produced through its interconnectedness with the breath, body, mind and space. This will be a

practical & theoretical workshop where participants will be introduced to different styles of creative speaking. Participants will be encouraged to find their own voice through specially designed exercises.

ADP16A Introduction to Theatre and Performance

This course, an introduction to theatre and performance, will engage and marry both theory and practice from the perspectives of the theatre maker and theatre scholar. It examines how theatre is developed from a range of sources, and explores ways in which scripted text is transformed, interpreted and manipulated. Working with the body, voice and performance space as critical performance elements, two 20th century theatre-making methodologies will be explored and examined. These include the theories and practice of Konstantin Stanislavski and Bertolt Brecht. Where practice approaches are concerned, there will be a particular focus on Realist (Stanislavsky) and Epic (Brecht) dramaturgical and performance strategies. In addition, the course will also introduce the basics of performance analysis and ways to 'de-code' performances. The objective is that students will learn how to engage with and articulate

an informed personal and theoretical vocabulary of theatre skills and practice.

ADP26A A Contemporary Theatre: Styles and Conventions

This course examines the dynamics, principles and practices of contemporary theatre in relation to developments of modern, post-modern and avant-garde theatre in a global context. It brings together cultural vocabularies and practices from diverse parts of the world and explores the styles and conventions that have emerged in contemporary performance making and thinking, with a particular focus on theatre

from the mid-twentieth to early twenty-first century. The course will examine the work of innovative and pioneering local and international theatre practitioners and engages students in research, practice and discussion on the historical, political, theoretical, practical and philosophical relevance of contemporary theatre.

ADP26B Theatre for Young People: Methods and Practices

This course will investigate current philosophies, practices and approaches of involving young people in the process of making theatre, for young people, particularly in Singapore. It will focus on modes of devising and presenting children's theatre, youth theatre, Theatre-in-Education and community-based performance in a practical workshop format. Students will work through a play building process to devise material suitable for the aforementioned groups of people, with them taking on the roles of performers and/or facilitators. The course will question the relevance and value of existing practices of theatre-making by and for youth and the community.

ADP26C Acting: The Actor's Voice and Body

This course examines what it means to act in theatre and explores the processes of personal preparation for the task of acting on stage, through working towards an understanding of the Actor's Voice and Body. It provides opportunities for students to engage in thinking through experiencing representational (realist) and presentational (non-realist) modes of performance. It also develops an understanding of fundamental principles that are involved in acting in an ensemble and individually. The course emphasises personal commitment to and ownership of the process, requiring participants to actively contribute to

improvisations and discussions, rehearsals and performances with a strong intent to build on skills and improve on an overall understanding of theatre and live acting.

ADP26D Theatre and Technology

The course will be an investigation of performance across a range of new media and technologies. It will apply contemporary theories of performance, such as postmodernism and posthumanism, consciousness and the virtual double, telematics and telepresence, and liveness and mediatisation to critique and devise performance in contexts alternative to conventional theatre. It seeks to inform students of the increasing use of technology in performance and encourages students to think critically about the various philosophical, aesthetic, cultural and critical issues arising from this interface of technology and theatre. Topics include televisual theatre, immersive game-theatre, digital performance, cyborg theatre, and virtual theatre.

ADP26E Playwriting and Script Analysis

In this course students will work both individually and in small groups as they examine playwriting processes and conventions. They will consider the role of the sole and collaborative playwright through writing exercises, improvisational and playbuilding techniques and research. Students will examine a playwright's methodologies and analyse a range of scripts that have been published as texts and used in performance. They read, watch and/or critique works by local playwrights as well international ones. A range of writing processes will be explored, leading to a variety of end-products – for example, from scene-work to the development of treatment for multi-media

performance; from dramaturgical and/or critical approaches to script analysis to the development of short playscripts.

ADP26G Independent Study in Theatre

This course is designed to accommodate flexibly advanced topics for the Drama and Performance student. This course could take the form of an academic pursuit or a more practical experience. The course will be individually tailored to the members of the class. Where appropriate, independent study methods will be introduced. Examples are: a small-team guided research project on an aspect of drama in the community; a detailed study of an innovative dramatist or company, considering both theory and practice; a researched and theorised chamber production.

ADP26H Directing and Dramaturgy

This course engages students in learning and analysing the skills and capacities of a director and dramaturg in relation to theatre-making. It explores the practices and philosophies that underpin the work of directing and dramaturgy as critical aspects of performance and production. Students will examine how directing is informed by particular aims and objectives, ideologies and aesthetics that engage the director, and develop dramaturgical approaches to researching, critiquing and questioning how these frameworks can be concretised and advanced.

ADP26J Traditional Theatre: Styles and Conventions

The course will examine some major traditional theatre forms that continue to be practiced and taught in Asia and further afield. These will include forms such as Kathakali, Noh, Chinese Opera and Wayang Kulit. It

will involve discussions focussed on the histories of these forms, their socio-political contexts and continued applications in contemporary culture. The course will entail negotiating a process of working with traditional theatre forms as contemporary theatre practitioners and educators. There will be opportunities for practical learning through workshops, watching audio-visual media and classroom dialogue to explore connected ideas and interrogate their relevance. Students will also engage in making short performances that draw on their own application and understanding of these forms.

ADP26K Contemporary Theatre in Singapore and Southeast Asia

The course will examine socio-political and aesthetic issues that stem from making Contemporary Southeast Asian Theatre, with particular emphasis on Singapore and a brief exploration of Malaysia, Indonesia and the Philippines. It will consider questions of identity, history, social and cultural change and the emergent trends that appear to characterise theatre in the region. Using plays from the region, the course will explore the emerging themes, issues and images and consider the fusion of theatre forms in contemporary Southeast Asian theatre that indicate a wide range of global and regional influence. This will include engaging with theatre in relation to Southeast Asia as a region, the influence of traditional theatre on contemporary work and vice-versa, and the importance of socio-political contexts in relation to theatre performance. The course will also briefly consider the contemporary Southeast Asian theatre today as it experiences cross-cultural through-flows, globalisation and regional interchange.

ADP26L Devising Theatre: Methods and Practices

This course will engage students in contemporary approaches for devising theatre that include improvisation, storytelling, scene-building and interactive staging. It introduces aspects of devising theatre and playbuilding that move from process to product, giving students opportunities to create and perform short devised works and critically reflect on that process and performance. Comprehension is enhanced by critical considerations of how to structure performance, articulate thematic frameworks, and respond aesthetically to critical feedback. Students will participate as performers/facilitators/devisers in generating collaborative processes, researching relevant ideas and issues, as well as developing and incorporating resources for staging. The course will also explore the ideas of leading theatre practitioners and companies locally and internationally.

ADP26M Applied Theatre: Theory, Practice and Pedagogy

This course will articulate and examine the different approaches to, and forms of, Applied Theatre such as Community Theatre and Theatre for Development. It will involve reading about, discussing and understanding the histories of Community Performances and why they continue to be practiced and advance in various parts of the world. The course will engage students in the theory and practice of Applied Theatre within non-formal educational contexts such as Community Centres, Hospitals, Youth Centres, etc. Students will look at the theoretical and pedagogical approaches that inform how Applied Theatre projects are created, planned and evaluated. They will engage in basic principles related to the making of such forms, and will also look at the socio-

political implications of generating Applied Theatre projects within the Singapore context.

ADP26N Performance Production

This course will introduce you to the processes of staging a theatre production. Having had experiences in staging a performance in other ADP courses, you will be able to extend and expand your learning by further developing your practice of theatre making, acting and directing. The course will provide you with an authentic experience of working as a theatre-maker in the performing arts and will introduce you to aspects of technical theatre such as lighting and sound design, stage management, as well as the key roles and responsibilities of a theatre production team. Even as this is a practical studio-based course, the course will emphasize the application of theoretical principles to practical performance outcomes. It will serve as a platform for you to stage a public performance, as the final assessment outcome.

Broadening & Deepening Electives: Early Childhood Education

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
Early Childhood Education	AED16A	Practices and Issues in Early Childhood Education	3	-
	AED16B	Curriculum and Assessment in Early Childhood Education	3	-
	AED16C	Learning Environments for Young Children	3	-
	AED16D	Child Development in Early Childhood Education	3	-
	AED16E	Diversity in Early Childhood Education	3	-

Minor in Early Childhood Education

Early Childhood Education (ECE) is seen as an increasingly important focus of development with the education system in Singapore.

The Minor in Early Childhood Education consists of five elective courses (3 AUs / course). Students who have completed all five courses (15 AUs) with passing grades can be offered the Minor in Early Childhood Education.

For students who are interested in completing the Minor, we recommend that you complete AED16A and AED16D first to enable you to make more meaningful sense of the other courses.

AED16A Practices and Issues in Early Childhood Education

This course is intended to provide students with opportunities to develop knowledge, skills and dispositions/attributes to be an advocate for young children and for early childhood education (ECE). Students will have opportunities to explore, understand and critically reflect on the sociocultural contexts of ECE and some of the important issues and practices that influence the lives of young children from 0-8. There is an emphasis on supporting students' skills and disposition for reflection, collaboration and advocacy.

AED16B Curriculum and Assessment in Early Childhood Education

This course aims to provide students with opportunities to develop and strengthen their knowledge, skills, and dispositions/attributes in designing quality learning experiences for children. Students will explore concepts in curriculum and assessment in early childhood education (ECE) and understand the elements that contribute to quality EC learning experiences. Students will also have opportunities to engage in and reflect on the design process as they design integrated play learning experiences that consider both children's and teachers' perspectives.

AED16C Learning Environments for Young Children

This course aims to provide students with an understanding on the importance of a well-designed environment on young children's holistic development, learning and behaviour.

The environment has been espoused as the 'third educator' in early childhood education. Students will learn how a safe, inclusive and developmentally appropriate environment (indoor & outdoor) can be designed to provide children with lots of opportunities to learn about themselves and the world around them.

AED16D Child Development in Early Childhood Education

This course conceptualises children's development across infancy, pre-school and lower primary school years (birth to 8 years) through the critical review of and reflection on various developmental theories, models, approaches and scholarly works. Through this course, students will be given opportunities to study children's development using a multi-disciplinary

framework and approach, to develop a holistic view of children built across disciplines, domains, contexts and cultures.

AED16E Diversity in Early Childhood Education

Diversity is a key feature in early childhood education settings today. The diversity found in an early childhood classroom, though in many ways a strength for the educator, can also produce challenges. In this course, participants will first understand and define this key concept and examine the kinds of diversity a young child living and learning in Singapore may experience. It can include diversity of race, gender, socio-economic background, family structure, culture, as well as differences in terms of needs, interests and abilities between individuals. In order to equip the early childhood educator with the means to celebrate diversity and engender a healthy respect for diversity in an early childhood classroom, this course will begin with an in-depth examination of the developmental processes involved in the germination of prejudice and bias in young children.

For the educator to effectively counter the stereotypes and/or prejudice that can be found in the early childhood classroom, he/she must first establish his/her own personal understanding and application of these key concepts. In this course, participants are facilitated to deeply reflect on their own preferences and deeply-held assumptions regarding diversity. Participants will then explore the local setting to see how prejudice and bias are rooted in children's social experiences, with a focus on how educators can help counter stereotypes and/or prejudice.

The course also seeks to equip participants with the pedagogy for difference so that we can create a

classroom where differences are accepted and celebrated, rather than suppressed or ignored.

Broadening & Deepening Electives: Education Studies

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
Education Studies	AED06A	Special Needs Education and Inclusion[#]	3	-
	AED06B	Disabilities and Disorders[#]	3	-
	AED06C	Inclusive education: teaching strategies for students with special educational needs[#]	3	-
	AED06D	Assessment of Special Needs	3	-
	AED06E	Consultation and Collaboration with Families	3	-
	AED08B	Understanding Singapore Education in Context	1	Compulsory for international students on International Practicum Exchange
	AED08C	Thinking DEEP in Education	3	-
	AED08D	Digital Literacy for the Net Generation	3	-
	AED18A	Curriculum Design	3	-
	AED18B	Inventive Thinking: Concept, Practice, and Instruction	3	-
	AED28B	Critical Perspectives on Education	3	-
	AED28D	Basic Counselling Skills for Teachers in Initial Training Programmes	3	-
	AED28K	Introduction to Counselling Psychology	2	-
	AED28L	Critical Reasoning Skills for Effective Teaching	2	-
	AED28N	Critical and Creative Thinking	2	-
	AED28Q	Group Counselling and Group Work in Schools	3	AED28D
	AED28R	Developmental Issues in Childhood and Adolescence	3	-
	AED28S	Ethics and Leadership	3	Compulsory for student teachers in the NTU-NIE Teaching Scholars Programme
	AED38A	Motivating Pupils to Learn	3	-
	AED38E	Psychopathology in Youth	3	-
	AED38G	Special Topics in Youth Work and Guidance	3	-
	AGE08D	Designing Learning Environments: A Focus on the Internet of Things	3	-

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AED28K, AED28L and AED28N are cross listed with AED23B, AED23C and AED23G respectively (see *Education Major: Education Studies*).

[#] For AED06A, AED06B and AED06C, we expect all students who have enrolled successfully in any of the Minor in Special Education courses to attend all sessions. The pedagogical approach adopted is designed to enable students to construct their understanding of individuals with special needs, the support they require in educational settings, and how to collaborate effectively with their families and their schools. Active participation is critical for developing social-cultural insights into supporting students with special needs at schools, at home and in society.

AED06A Special Needs Education and Inclusion

This course provides students with a foundational understanding of the key concepts of special needs education and inclusion. It aims to equip students working with individuals with disabilities with essential knowledge in the context of Singapore's education landscape.

Students will explore historical trends and contemporary issues surrounding individuals with disabilities both locally and globally. The course provides insights into how individuals with diverse needs can be supported in school, home and community environments.

Through the course, students will also examine contemporary issues that influence service provision and public understanding of disabilities. Students will reflect on their own values, beliefs, roles and responsibilities in supporting individuals with special needs.

AED06B Disabilities and Disorders

This course explores the terminology, characteristics, and implications of various disabilities and disorders, based on the 13 disability categories in the Individuals with Disabilities Education Act (IDEA, 2004)

Students will learn about the etiology and developmental impact of each disability category and how these conditions affect individuals across various domains (e.g., communication, motor, cognitive, and social interaction). The course also examines the impact on families and suggests accommodations and supports that can be implemented in classroom and community settings.

Students will be introduced to services and resources available in the community to support individuals with disabilities and their families.

AED06C Inclusive Education: Teaching Strategies for Students with Special Educational Needs

This course focuses on the organisation and practice of inclusive education for students with special educational needs (SEN). It prepares student to work collaboratively and effectively in supporting learners with diverse needs within inclusive classroom settings.

Students will examine various models of inclusive education, and the factors that influence their implementation. They will also learn to design and implement appropriate organisational and instuctional strategies that foster educational and social inclusion of all learners.

Emphasis is placed on applying inclusive practices that promote equity, participation and belonging in school communities.

AED06D Assessment of Special Needs

This course provides an overview of supporting children and adolescents with special needs in various settings, such as mainstream and special schools. Participants will acquire knowledge of the practical application of an assessment framework for the

support of these students. During the course, participants will also develop an understanding of assessments and its role in making instructional decisions. With data obtained from both direct and indirect assessments, participants can better identify the strengths and needs of students with special needs to design interventions across a range of academic and social behaviours.

AED06E Consultation and Collaboration with Families

This course aims to examine the various ways in which students can be supported through a school as well as a community-based approach. Participants will be introduced to collaboration and consultation skills to gain a better understanding of current against desired outcomes for inclusive mainstream education. Participants will review school practices and harness current school resources and practices to better support students with special needs and their families.

AED08B Understanding Singapore Education in Context

This introductory course familiarises international students on international practicum exchange within the Singapore education system. This course will examine a variety of views about teacher, learning and assessment, and will address the important notions of context and culture. International students will also be required to reflect and share their experiences spent in a Singapore classroom during their attachment. This course will provide them with a deeper understanding of the Singapore education system as a whole.

AED08C Thinking DEEP in Education

This course is one of the Deeper Experiential Engagement Projects (DEEP) series of GERs, and aims to make use of projects arising from

hobby/interest-based activities to develop your awareness of the relevance of pedagogical practices beyond the classroom. In particular, you will be addressing topics common to your hobbies and everyday living e.g. relating to any teaching and learning experiences, living things around our campus, apps that have a relevance to pedagogy etc. Through hands-on team-based projects in tracks such as Education, Humanities, Visual Performing Arts & Languages or Sciences, you will further learn how to creatively and experimentally approach a challenging theme related to your hobby/interest e.g. counselling, gardening, app programming. You will also work towards a solution/product with your team through experimental trials. This Experiential Learning project may take place in halls with Residential Education facilities, NIE/NTU Clubs and Society spaces, or in any appropriate spaces provisioned by NIE for such work. You will learn experimental approaches, how to manage time and resources, and consider how your newly acquired knowledge and skills can be used to benefit others.

AED08D Digital Literacy for the Net Generation

This course will equip the learners with a broad set of skills and competencies in using digital tools and devices so that they can thrive in a knowledge-based and technology-driven world. This hands-on course will introduce some basic and practical digital skills to search and evaluate online information; collaborate and solve real-life problems; co-create and share knowledge in a safe and responsible manner. It will enable them to harness the power of digital technology to achieve their educational, personal, and professional pursuits.

Learners enrolled in this course will be introduced to a wide range of multimedia, productivity, communication, and research tools. They will also explore various digital technologies to develop knowledge and skills for study, work, and everyday life.

AED18A Curriculum Design

Recent developments in Singapore education requires schools and teachers to design school-based programmes for their students. This is in line with the view that teachers, as professionals, should not merely enact a national curriculum, but engage their intellectual and emotional investments in their work on behalf of and sometimes in collaboration with the students they know best. It is crucial that teachers understand their professional role in curriculum making, which includes making sense of the MOE syllabi, scoping and sequencing the content in a way that is relevant to their students, and designing meaningful learning experiences for their students in the various curricular programmes available in the school. This course will help students to explore seminal views on the aims of education and the philosophies underpinning these views. This course aims to help students unpack the range of issues and considerations that constitute teacher's agency in curriculum thinking and curriculum making in the context of Singaporean classrooms today. Ultimately, this course strengthens students' awareness and appreciation of the fundamental issues and considerations in curriculum thought and curriculum-making, and puts them on the path to becoming critically reflective curriculum thinkers and makers. Each lesson in the course builds on the previous, but each lesson also provides student and instructors with the opportunity to revisit ideas and issues previously

discussed in greater depth and at higher levels of sophistication.

AED18B Inventive Thinking: Concept, Practice, and Instruction

Inventive thinking is one of the competencies identified by various industry analysts and educational researchers as key to personal and professional success in the 21st century. This course aims to equip students with a good understanding and mastery of inventive thinking skills, and the ability to design and teach inventive thinking skills lessons. The course begins with the question, “What is inventive thinking?”. Students will construct their own responses to this question through a guided exploration of theories of inventive thinking and inventive practices in various fields of human endeavour, such as product and service design, business management, humanitarian efforts, academia, cultural preservation, environmental conservation, etc. Students will then explore some strategies and techniques for teaching inventive thinking skills, both explicitly on their own and as an integrated component of content-based subjects. This course ends by providing students with an opportunity to develop and experiment with different ways of teaching for inventive thinking. This course has a certain bias towards the application of inventive thinking skills. Inventive thinking is understood not as mere originality or novelty, but as a capacity to create innovative solutions that better address real human needs than those currently available. This involves creating solutions that meet the needs of people, address conflicting concerns, and have long-term sustainability.

AED28B Critical Perspectives on Education

This course aims to introduce you to the basic concepts, issues, and challenges in education, enhance your critical reasoning skills, especially as applied to educational issues, and encourage you to personally reflect on the professional and vocational aspects of being a teacher.

This course takes a multi-disciplinary approach to expose you to the broad concerns and challenges in contemporary educational thought and practice. These topics and issues will be rigorously examined with a view to stimulating individual reflection and class discussion. In the process of exploring these issues, you will be encouraged to reflect on what it takes in terms of skills, knowledge, and values to become a good teacher.

It is hoped that this course will prepare you for the complexities of teaching and help you perform the role of a teacher with greater criticality and self-reflectiveness.

AED28D Basic Counselling Skills for Teachers in Initial Training Programmes

This course is a practical “how-to’ guide to using basic counselling and helping skills for working with pupils. The main features include an introduction to the concepts of helping; an exploration into the concepts of mental and maladjustment with pupils; identification of pupils with behavioural and emotional problems; qualities of the effective teacher-helper; and the relationship and role of the teacher as a helper and teacher-counsellor. Study-topics include active listening; interpreting body language; basic helping skills; the ethics of helping; and different approaches and techniques in counselling and helping. All

students also have the chance to experience the client role during Personal Development Sessions in the NIE Wellness Centre or via online video-calls.

AED28K Introduction to Counselling Psychology

This course is intended to provide a general introduction to the field of counselling psychology. An overview of the philosophy, history, as well as basic theories and principles of counselling process and counselling skills will be presented. The role and function of the counsellors in the educational settings will be discussed. The characteristics of good counsellors, conditions for an effective counselling relationship and techniques of interviewing used especially to problems of educational, vocational, and personal counselling will be integrated into the course content. Emphasis will also be placed on multicultural counselling, career counselling, and research in counselling. This course is designed to explore contemporary, legal, ethical and professional issues that influence the counselling profession, including confidentiality, assessment and working with students from diverse background.

AED28L Critical Reasoning Skills for Effective Teaching

The course will equip you with a broad range of critical reasoning skills to develop the thinking and analytical abilities of your pupils in schools. Critical reasoning or thinking is based in part on mastery of basic rules of elementary logic, as well as practical reasoning skills. These skills are used for the analysis and evaluation of situations and arguments, as well as the formulation and articulation of good arguments and judgments. By learning how to formulate and articulate good arguments, you will acquire an appreciation of how these critical thinking skills can be used to facilitate

multi- and inter-disciplinary learning in your teaching. Working in groups, you will design innovative lessons and workshops in diverse professional settings that would help to stimulate interest in critical thinking and problem solving among your target audience.

AED28N Critical and Creative Thinking

The course enables students to understand the phenomenon of thinking from simple to complex, from concrete to abstract, and from logical to intuitive. Students would learn to develop thinking and pedagogical skills and curriculum materials and to help students to think critically and creatively at a more advanced level. In addition, the course hopes to develop depth in analytical and imaginative thinking skills to solve more sophisticated real-life classroom problems, and to link theories to practice of educational concepts in the affective domain.

AED28Q Group Counselling and Group Work in Schools

This course allows students to acquire basic understanding of counselling skills and processes that are implicit in group counselling and group work with children and adolescents. It is designed to meet the group facilitation skills needs of students who wish to complete the Minor in Youth Work and Guidance. Hence, lecture portions of this class will be run as a guidance group seated in a circle, facilitated by the one or two lecturers. After learning the basic principles and theories of group development, students will experience running their own in-class support groups.

AED28R Developmental Issues in Childhood and Adolescence

This course aims to enhance participants' knowledge on the major developmental issues surrounding youths and children today. Supported with different

theoretical framework, this course introduces to the participants, effective techniques, and skills in working with children and youths of different ages and background. Participants are also encouraged to make links between their practice and theories taught in class, making learning more effective and relevant.

AED28S Ethics and Leadership

This course aims to provide you, the student-teacher, with a broad overview of leadership theories and models and equip you with the critical, creative, and affective thinking tools to make ethically justifiable decisions when tackling the leadership challenges you are likely to face as a school teacher in the 21st century. Throughout the course, you will have many opportunities to explore the relationship between ethics and teacher leadership and grapple with the ethical complexities you will encounter when making leadership decisions in school. In addition, you will be guided to examine your personal qualities and critically reflect on your beliefs about and experiences of teacher leadership so that you can develop your own professional leadership.

AED38A Motivating Pupils to Learn

This course is designed to help students understand the theoretical and practical considerations regarding motivating pupils in the classroom. Opportunities will be provided for participants to examine themes such as the psychological principles affecting pupil's learning, motivation and its relationship to classroom learning and pupil behavior, and theories of motivation. Throughout the course, students will be making connections of theory to practice – examining effective strategies to motivate reluctant and

disinterested learners and designing and evaluating motivational strategies in the classroom.

AED38E Psychopathology in Youths

This course aims to equip students with the foundational knowledge relating to the etiology, identification, developmental course, and treatments of various psychological conditions observed in children and youths. The psychological disorders covered will include, anxiety disorders, obsessive compulsive and related disorders, depressive disorders, somatic symptom and related disorders, common psychotic conditions, feeding and eating disorders, and neurodevelopmental disorders in children.

AED38G Special Topics in Youth Work and Guidance

This course introduces students to topics of special interest in the field of youth work. Topics may change in different academic years to reflect the current development and concerns in youth work. Topics may include issues pertaining to special needs and inclusion, service learning, multicultural perspective of youth work, issues affecting youths (such as gaming addiction, loss and grief, suicide and crisis interventions, or self-mutilation). By the end of this course, students will acquire additional knowledge and skills to complement other courses they have studied in this programme.

AGE08D Designing Learning Environments: A Focus on the Internet of Things

Have you wondered about the environments immediately around us? Perhaps you have been curious about how our local environments can be used as resources for teaching and learning. If so, you are

invited to consider this course, which introduces you to how data science, maker culture, and the Internet of Things find applications to the design of learning environments. As a participant of this course, you will have the opportunity to have hands-on experiences with emerging technologies related to data science and computer vision, as well as time to build simple robots and to be introduced to (or practise!) coding concepts in a scaffolded manner. Students from all traditional subject domains are welcome, especially if you enjoy perspectives from a variety of disciplinary lenses.

Broadening & Deepening Electives: English Language & Linguistics

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
English Language & Linguistics	AAE08A	The Language that Surrounds Us	3	-
	AAE18B	Language in Context	3	-
	AAE18C	Exploring the Grammar of English	3	-
	AAE18D	Exploring the Words and Sounds of English	3	-
	AAE18E	Introduction to Linguistics	3	-
	AAE28A	Creative Writing	3	-
	AAE28B	Introduction to Children's Literature	3	-
	AAE28C	The Social Variation of Language	3	-
	AAE28E	The Role of Language in Education	3	-
	AAE28G	Language Development: Psycholinguistic and Sociolinguistic Perspectives	3	AAE18E
	ACE48A	Teaching Grammar at the Secondary Level	3	-
	AGE08A	Digital and Media Literacy	3	-
	AGE08K	Practical Articulation in Sign Languages for Teachers of the Deaf (Primary)	1	#
	AGE08L	Practical Articulation in Sign Languages for Teachers of the Deaf (Secondary)	1	#

Pre-requisite:

1) Individuals who know Sign Language

Please refer to the Intelligent Launchpad for the list of courses offered by semesters.

AAE18B, AAE18C, AAE18D, AAE18E, AAE28C, AAE28G and AAE28E are cross listed with AAE10B, AAE10C, AAE10D, AAE10E, AAE23C, AAE23T and AAE23K respectively.

AAE18B, AAE18C, AAE18D, AAE18E is offered to all student teachers, with the exception of BA/BSc (Acad Dspln & Ed) student teachers reading English Language & Linguistics as an Academic Discipline.

AAE28C, AAE28E and AAE28G are offered to all student teachers. BA/BSc (Acad Dspln & Ed) student teachers reading English Language & Linguistics as an Academic Discipline who have fulfilled their Prescribed Elective requirements for the programme are welcome to take AAE28C, AAE28E and AAE28G as Broadening & Deepening Electives, provided these courses were not already taken in fulfilment of their Prescribed Elective requirements.

AAE08A The Language that Surrounds Us

This course examines the multiple meanings of language deployed in public spaces – a sub-field of linguistics technically referred to as geosemiotics, but more commonly known as linguistic landscapes. The course will explore not only the typical linguistic landscape terrain of written language in public signage, but also other 'semiotic landscapes,' such as soundscapes (e.g., announcements, radio

broadcasts), netscapes (Internet), and skinscapes (tattoos). Through lectures, class discussions, course readings, field trips, and investigations carried out individually and in groups, you will develop a heightened awareness of the linguistic forms, political actions, and cultural messages realised in the linguistic landscape, becoming critical observers of the language that surrounds us.

AAE18B Language in Context

This course aims to help students to develop into systematic and critical observers of language as they use and encounter it in different contexts. As we examine spoken and written texts from across a variety of settings, students will be introduced to a beginner's framework and metalanguage for talking about texts, interactions, and social context. These will enable students not only to appreciate how language works to enable purposeful communication in context, but also to understand how it often works to mask underlying purposes and values. The course also explores how language interacts with the visual mode in texts, encouraging students to consider what is needed for us to understand the increasingly multimodal texts in today's society and what this might mean for them as future teachers of English.

AAE18C Exploring the Grammar of English

This course introduces grammar as the study of the different parts of the English sentence and how these parts relate to each other. It covers the full range of units – the individual words, which combine with other words to form phrases, which, in turn, combine with other phrases to form clauses. The course draws attention to the key features of the major constituents of the English sentence, and the various functions they

perform. Students are also given a brief introduction to the two main approaches to the study of grammar – the formal and the functional.

AAE18D Exploring the Words and Sounds of English

This course will introduce students to the basic concepts of English phonetics, phonology and morphology, and some implications for English pronunciation teaching and learning. In the study of phonetics and phonology, students will explore the patterns of speech sounds in English words and sentences. They will become familiar with the International Phonetic Alphabet (IPA) and be able to read and produce phonetic transcriptions. They will also learn about the production of vowels and consonants, as well as the various articulatory processes involved. Key aspects of English phonology: phonemes, phones, allophones, co-articulation effects, syllable structure, intonation, word and sentence stress will be covered. Students will also be introduced to basic phonological theory and the concept of distinctive features. In the study of morphology, students will learn the basic elements of English words: free (lexical/functional) and bound (derivational/inflectional) morphemes, and the distinction between morphs and allomorphs. In addition, they will deepen their understanding of the main word formation processes (e.g. borrowing, compounding, blending, clipping, etc.). Through this course, students will be able to discuss the relationships amongst phonetics, phonology, and morphology, and to consider the variation amongst different varieties of English. There will also be opportunities for the application of knowledge gained on the course to their roles as users and prospective teachers of the English Language.

AAE18E Introduction to Linguistics

This survey course offers an introduction to linguistics which is the scientific study of human language. The course provides an overview of the major branches of linguistics, focussing on English. Students will learn about the history and structure of English as well as broader ideas about how language relates to the mind, society and education. Connections between these various branches of linguistics are emphasised. The course provides the necessary disciplinary foundation and basis for further linguistic investigations in subsequent courses.

AAE28A Creative Writing

This course provides you with opportunities to write to develop your creative writing skills in prose. You will also have opportunities to understand the craft of writing, for instance through critiquing the development of theme, structure of story, characterization, the use of dialogue, narrative voice and point of view. The course also aims to facilitate development of your editorial skills through the provision and acceptance of feedback on writing. The course will be workshop-based and emphasise discussion and reflection. During the course, you will produce two types of prose: fiction (short stories) and creative non-fiction / literary non-fiction (e.g. mini-biographies). In order to do this, you will learn how to draw on your own memories and sensory perceptions and how to interview others.

AAE28B Introduction to Children's Literature

This course explores major genres and forms of children's literature, focusing on important traditions, themes and conventions, and considering their relevance to the linguistic and imaginative

development of children as young readers and viewers. You will read, view and listen to a wide selection of children's literature, ranging from traditional forms such as fables and fairy tales to poems, picture books, and contemporary children's novels, reflecting a wide range of identities, communities and cultures. Through the course, you will learn to appreciate, critically respond to, select and use children's literature for different purposes.

AAE28C The Social Variation of Language

The course introduces students to sociolinguistic methods of studying language, with a focus on the English language. Students will study regional, social and stylistic variation in English and explore the causes and consequences of language variation and change. Students will critically examine how issues of power come into play through the interaction of language with gender, education, and policy making, particularly in bilingual and multilingual contexts. Discussion of issues such as language maintenance and language shift; the emergence of new language varieties such as pidgins and creoles, and the impact of globalization and new communicative orders on the status of languages will also be covered.

AAE28G Language Development: Psycholinguistic and Sociolinguistic Perspectives

This course examines features, theories and issues of language acquisition and development. You will understand how the processes and outcomes of language learning are influenced by individual cognition as well as linguistic and social factors in the environment. The course introduces the path of language development for English monolinguals and bilinguals at home and in school. Special features of

language acquisition and development in multilingual societies are considered. Knowledge gained from this course will enable you to make crucial decisions in future teaching.

AAE28E The Role of Language in Education

This course explores the centrality of language in education, where it is both the medium and the message. Through language, the process of teaching and learning takes place, and one of the principal aims of education is to foster students' ability to use language. Among the key questions raised are the following: What is the relationship between language and learning, and how can teachers use language effectively to promote learning? Which language, or types of language, should be taught in school and why? Why do some students learn the language, or types of language, of schooling more readily than others?

ACE48A Teaching Grammar at the Secondary Level

The course addresses key principles of grammar teaching. Students are exposed to a variety of instructional strategies, techniques and resources which will prepare them to teach grammar in a secondary school. Students will explore how established as well as new grammar teaching approaches could be integrated into the wider context of teaching other language skills within a progressive, spiralled curriculum. They will have opportunities to examine the grammar of multimodal texts and design appropriate teaching tasks to meet the needs of the 21st century learner of the English Language.

AGE08A Digital and Media Literacy

Thanks to the proliferation of digital media and communication technologies, people today stay connected practically around the clock, immersed in an unstoppable torrent of images, news (fake or real), status updates, advertisements, and funny videos. Yet being engaged with media today goes beyond passively reading messages; it is about presenting oneself, about being a part of a community, indeed about creating communities. What kind of social, cultural, and political forces shape digital spaces and what does it take to successfully navigate them? This course aims to give students an overview of digital media literacy as an academic field of study and also to equip them with diverse but interrelated skills needed for critical engagement with various forms of digital media.

AGE08K Practical Articulation in Sign Languages for Teachers of the Deaf (Primary)

Sign Language is a visual language made up of a complex system of gestures, hand, and facial movements that work together as an effective and important manner of communication for deaf individuals. About 90% to 95% of deaf children have hearing parents whose first language is not Sign Language. Educators of deaf students therefore play an important role in teaching them to be effective communicators and learners. In this course, you will become familiar with the linguistic components that make up a signed utterance and the constituents of clear sign production in a classroom. You will reflect on your own sign language use and how that impacts disciplinary content delivery. Specifically, you will consider the complexities of different varieties of Sign Language in the Singaporean classroom and their

relationships with written language as deaf students are taught discipline-specific written words and phrases, and their corresponding signed utterances.

AGE08L Practical Articulation in Sign Languages for Teachers of the Deaf (Secondary)

Sign Language is a visual language made up of a complex system of gestures, hand, and facial movements that work together as an effective and important manner of communication for deaf individuals. About 90% to 95% of deaf children have hearing parents whose first language is not Sign Language. Educators of deaf students therefore play an important role in teaching them to be effective communicators and learners. In this course, you will become familiar with the linguistic components that make up a signed utterance and the constituents of clear sign production in a classroom. You will reflect on your own sign language use and how that impacts disciplinary content delivery. Specifically, you will consider the complexities of different varieties of Sign Language in the Singaporean classroom and their relationships with written language as deaf students are taught discipline-specific written words and phrases, and their corresponding signed utterances.

Broadening & Deepening Electives: English Literature

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
English Literature	AAR08A	Literatures of Southeast Asia	3	-
	ACR48A	Designing Literature Curriculum and Assessment	3	-

AAR08A is cross listed with AAR23K.

AAR08A Literatures of Southeast Asia

This course aims to examine selected literary works from Southeast Asian countries, from the point of view of their literary techniques and themes, as well as within the contexts of their literary traditions and geopolitical, social and cultural negotiations. In order to develop a collaborative and comparative frame of interpretation and understanding, common themes that will be explored across the literatures from various countries include colonization and independence, nationalism, the continuing influence of traditional and ethnic cultures, and the evolution of literary style and genre. Careful attention will be paid to considering the meanings and possible impact of each of these works within their own society as well as to elucidating how each work can be seen to manifest culturally specific values, ideologies and philosophies. In order to achieve this, selected theoretical, cultural and multimedia texts will be introduced alongside the core literary texts.

ACR48A Designing Literature Curriculum and Assessment

This course will examine the principles and practices used to guide the design of Literature curriculum and assessment. During workshop-style lessons, pre-service teachers will engage in discussions of theoretical principles underlying good design as well as engage in practical sessions focusing on designing

inquiry-based curriculum, setting, and marking written assessments, and creating and assessing alternative modes of assessments such as oral communication, multimodal ways of assessing and portfolio assessment. Students will also participate in an out-of-school learning journey as part of the course.

Broadening & Deepening Electives: Food and Consumer Sciences

Category/ Subject	Course Code	Title	No. of AUs	Pre- requisites
Food and Consumer Sciences	AGQ28A	Adventures in Gastronomy	3	For Non-FCS Student Teachers
	AGQ28B	Everyday Science in Foods	3	For Non-FCS Student Teachers
	AGQ28C	Food and Society	3	For Non-FCS Student Teachers
	AGQ28D	Introduction to Entrepreneurship	3	For Non-FCS Student Teachers
	AGQ28E	Personal Finance	3	For Non-FCS Student Teachers
	AGQ28G	Textiles Study	3	For Non-FCS Student Teachers
	AGQ28H	Design and Non-Verbal Thinking Foundation	3	For Non-FCS Student Teachers

AGQ28A Adventures in Gastronomy

Students will embark on an adventurous journey in the world of gastronomy. This course is designed to introduce the fundamental principles in the preparation and management of the foods and cuisines we eat and enjoy. Basic techniques such as preparation of batters and sauces, cakes and pastry making, food hygiene and safety will be studied.

AGQ28B Everyday Science in Foods

This course is designed to introduce the scientific principles that underpin everyday cooking of the food we eat and enjoy. In each session, a specific category of food will be investigated using edible scientific experiments.

AGQ28C Food and Society

This course focuses on the patterns, customs and management of foods in the context of diverse cultural populations. The influences of history and origins, culture and religions on foods, the impact of

geographical and economic factors on food patterns, eating habits, preparation of traditional foods from around the world, and the impact of these on the Singapore food scene and marketplace. Student will have a more holistic understanding of the development of food habits and commodities.

AGQ28D Introduction to Entrepreneurship

Entrepreneurship and new venture creation is a choice to live out one's dreams that can make a real difference not only in the life of the entrepreneur her/himself, but also in the lives of others; it can lead to new and improved products/services and create new jobs and added value for owners, investors and even the society. Starting up a venture usually requires more money than you have in the bank, more energy than you think you have, and more skills & know-how than you think you need.

This course will introduce you to the fundamental concepts of entrepreneurship. Business planning is essential to any entrepreneurial venture, whether it is to start a new business or expand an existing one. This, therefore, forms the main project for the course. However, the focus of this course is not on the business plan itself but on the (behavioural) processes and tools leading to the development of the plan. The internet and role of e-commerce in entrepreneurship & business is recognised, introduced and discussed. Similarly, the importance of technology as a source of entrepreneurial ventures will be introduced. Specific attention will be given to Family and Consumer Sciences-related industries.

AGQ28E Personal Finance

This course explores the key components of personal finance that are critical for building a strong financial

foundation. You will learn the strategies of developing S.M.A.R.T financial goals, managing personal checking accounts, and credit. Topics include bankruptcy, investment strategies including savings accounts, mutual funds and the stock market.

AGQ28G Textiles Study

This course is intended to give the family and consumer science student an understanding of textile fundamentals as they relate to the consumer and consumer products. Students will acquire a working knowledge of natural and man-made fibers, yarn formation, fabric construction, fabrication coloration and finishing.

AGQ28H Design and Non-Verbal Thinking Foundation

This course aims to discuss and facilitate design and non-verbal thinking protocol through doodles, sketches and drawings that support visual thinking, visual argument, visual explanation, and visual communication in general work application. Emphasis will be placed on developing in student design and innovation. Design thinking protocol in terms of research, problem definition, ideation, development, prototyping, testing, and evaluation will be discussed and with focus on empathy.

Broadening & Deepening Electives: Geography

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
Geography	AAG18C	Singapore in the Globalized World	3	-
	AAG28C	Understanding Tourism	3	-
	AAG28D	Remote Sensing	3	-
	AAG28E	Introduction to Geographic Information Systems	3	-
	AAG28G	Economic Geography and Globalization	3	-
	AAG38A	Cities of the World	3	-

AAG18C, AAG28C, AAG28D, AAG28E, AAG28G and AAG38A are cross listed with AAG10E, AAG23Q, AAG23B, AAG23H, AAG23J and AAG33L respectively.

AAG18C Singapore in the Globalized World

This course integrates geographical skills and different study strands – human, environmental and technical – in the study of Singapore in the Asian region and the rest of the globalized world. The global positioning of Singapore and the contemporary challenges to development that it faces in a highly competitive and fast changing global environment will be the framework for the study of the issues and concerns that it currently faces. In particular, it interrogates the changing landscapes of Singapore in light of the city-state's on-going global city aspirations.

AAG28C Understanding Tourism

Tourism is arguably the world's largest industry and has been considered as an economic development option by many developing countries. However, it is questionable whether income generated through tourism can bring marginalized communities increased economic independence and life standards. This course aims to use tourism as a lens to explore key issues of globalization and socio-economic development and how tourism, a global phenomenon, influences local people's lives. Course objectives are

to 1) introduce the concepts relevant to tourism and globalization; 2) apply theoretical frameworks to the analysis of contemporary issues of the globalization of tourism, and the complex relationships that link local, regional, national and international processes and patterns of tourism development; 3) explore the dynamic relationship between the forces of globalization, transnational tourism corporations, and the state and civil society in the context of tourism; and 4) assess critically the economic, political and social ramifications of the systemic sources of power and inequality which are reflected in and sustained by international tourism.

AAG28D Remote Sensing

This course exposes student teachers to digital image processing using remote sensing technologies. Through problem-based learning, student teachers are required to adopt relevant techniques and knowledge to address specific geographical or environmental issues. More importantly, student teachers will need to showcase remote sensing integration into their future teaching.

AAG28E Introduction to Geographic Information Systems

This course will introduce students to how to think spatially by familiarizing them with the basic concepts and tools of Geographic Information Systems (GIS). It enables students to display, analyse and manipulate spatially-reference information, and to better understand human-environment interactions.

AAG28G Economic Geography and Globalisation

The course aims to introduce student teachers to changing landscape of economic geography in the world with focus on basic theoretical understanding.

The course will help student teachers understand the ways geographers have conceptualised various economic issues around the world and will help student teachers in understanding spatial significance of economic geography. Student teachers will also learn about the concept and impact of globalization across Global North and Global South.

AAG38A Cities of the World

Based on comprehensive theoretical understandings and case study based city-specific in-depth analysis, this course aims to introduce you to the practices, processes, and complexities in/of the urbanizing world and with specific focus on Asia. Through the lens of everyday urban world, you understand urban theories and concepts, various urban policies, travel as models & practices, technologies and their adoption into the urban world, urban water management and the making of liveable, sustainable & smart cities across the world. Particular emphasis will also be given on understanding Singapore's everyday urban life, planning practices and its importance as an urban model in Asia and beyond. Further, student fieldwork will help in understanding classroom concepts and appreciate everyday Asian urbanism.

Broadening & Deepening Electives: History

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
History	AAH18C	Topics in Military History	3	-
	AAH18D	Film and Propaganda	3	-
	AAH18E	Early Modern Asia	3	-
	AGE08C	Experiencing Historical Settlements of Asia through Fieldtrips	3	1. able to commit to work and trips required 2. have an aptitude for history and interdisciplinary approaches
	AGE08E	Singapore Kaleidoscope	3	-

AAH18E is cross listed with AAH23D.

AAH18C Topics in Military History

Military history is usually parochially thought of as being associated with war and fighting on the battlefield. This course moves away from the traditional fixation on battles and looks at violence and aggression in the context of larger societal developments. Case studies taken from the diverse encounters of the British arising from their global colonial enterprise will be used to illustrate this thematic approach. As students taking this course, you will be expected to reflect on a modern episode of Southeast Asian military history through your experience of a fieldtrip and to apply your own professional specialization in the essay assignment beyond discussion of the historical content.

AAH18D Film and Propaganda

This course is designed to teach you how films can be used to study history and how they can be used for propaganda. The course deals with the use of film as propaganda in the twentieth century. It focuses on how Hitler and the Nazis used film for propaganda

purposes in Germany and traces the skilful manipulation of film during wartime for propaganda purposes by leaders of other nations as well as those of Nazi Germany. Thus, the course aims to make you aware of the value of film as a primary and secondary source in historical research and writing. The course aims also to show that films are representations of the past just like any history book, but they often use different techniques to represent the past.

AAH18E Early Modern Asia

This course provides an introductory survey of three civilizations in the early modern period (1400 to 1820 CE). It explores the political, social-economic, and cultural-religious developments in East, Southeast and South Asia in the early modern period. A museum experience is embedded in a way where students will be expected to make observations of the displayed artefacts in connection with the themes studied in the course. Students are expected to be able to appreciate and apply a diversity of evidence from the text and museum in analyses in their presentations or essays.

AGE08C Experiencing Historical Settlements of Asia through Fieldtrips

In a learning world in which authentic and diverse experience is increasingly highlighted and valued, this course hopes to incorporate interdisciplinary studies vis-à-vis historical approach in the examining historical settlement of study in early modern and colonial Asia. Students will be expected to participate in local field studies and a mandatory overseas study trip in order to perform the assignment tasks designated in the course. At the end of the course, students will be able to attain an in-depth understanding of a historical

place-of-study in early modern and colonial Asia from interdisciplinary and diverse perspectives.

AGE08E Singapore Kaleidoscope

Singapore is a nation rich in its natural and cultural heritage, with a diverse, well-educated population ready to meet the challenges of living in the 21st society. This course will draw on the diverse perspectives of people living in Singapore to examine Singapore's natural landscapes, society, culture, and heritage, as well as Singapore's geo-political landscape and future prospects. In the course, students will engage with different perspectives, experience Singapore through a range of lenses, and explore the critical challenges, issues, and perspectives necessary to understand Singapore in the 21st century.

Broadening & Deepening Electives: Malay Language and Malay Literature

Category/ Subject	Course Code	Title	No. of AUs	Pre-Requisites
Malay Language and Malay Literature	AAD08A	Malay in Context	3	#
	AAD08B	Introduction to Basic Jawi and Calligraphy	3	#
	AAD28B	Education of the Malays	3	-
	AAD28C	Islam and Malay Society	3	-
	AAF08A	Malay Performing Arts	3	#
	AAF08B	Appreciating Multiculturalism through Story	3	-
	AAF28C	Appreciation of Literary Texts	3	-

Pre-requisites: A pass in 'O' level Malay Language or the equivalent.
Students in Bachelor of Arts in Malay Studies and Education are **excluded** from AAD08A and AAD08B.

AAD08A is cross listed with AAD10B.

AAD08A Malay in Context

This course examines how Malay works in a wide range of contexts, including the media, fiction, academic writing, and everyday conversation. It provides a beginner's framework and meta-language for talking about how written and oral communications can be adapted in ways, which present our message and us in different lights. The aim is to enable you to make systematic and critical observations of language as they use and encounter it in different contexts.

AAD08B Introduction to Basic Jawi and Calligraphy

This course highlights the special place of Jawi in the Malay language. It traces the origins of the script, its role in developing literacy and contributions on various spheres of the Malays. Through this course, you will be familiarized with selected orthography of Jawi for beginners. Jawi calligraphy is an important component of this course. You will explore the fundamentals of Jawi calligraphy, including typology, methods, and techniques of Jawi calligraphy. This course

underscores the dynamism of Jawi calligraphy in contemporary period.

AAD28B Education of the Malays

This course traces the development of traditional education and the historical development of education among the Malays of South East Asia. It covers education during the Srivijaya period, the process of Islamisation, through the beginnings of modernisation during the colonial period up to the development of education in the independent states of Indonesia, Malaysia and Brunei. The place of Sekolah Melayu in Singapore education and the role of language and culture in influencing education systems will be examined.

AAD28C Islam and Malay Society

This course offers a historical and sociological understanding of the role of Islam in Malay society. The themes to be explored include the Islamisation of the Malays in the past and contemporary period, the conditioning of the Malay value system, religious institutions in Malay society, the influence of Islam on Malay ideas in education, aesthetics, community life and economic ethos, and the dakwah movement since the 1970s. Reference will be made to the significance and contribution of Islam in the cultural life of the Malays.

AAF08A Malay Performing Arts

This course introduces Malay Performing Arts at a basic level. You will have an opportunity to learn about Dikir Barat, Malay Dance and Angklung and discover how these performances demonstrate the concept of creation and shared arts experience within Malay culture. Through immersive, engaging and

collaborative workshops, you will acquire individual and ensemble skills, foster an appreciation for Malay Performing Arts, and nurture the confidence to perform in a culminating cultural showcase.

AAF08B Appreciating Multiculturalism through Story

This course introduces 'story' as a medium to appreciate multiculturalism. By using selected modern and classical literary texts and close reading of texts as well as ICT-based media, you will be given the opportunity to appreciate values, tradition and culture of various communities, namely Chinese, Malay and Indian, with contextual understanding. Current multiculturalism-related issues such as cultural representation, transnationalism, cultural parochialism will also be discussed. This course will be delivered in English. All readings and teaching resources are available in English.

AAF28C Appreciation of Literary Texts

This course places emphasis on the reading and analysing of evergreen literary texts to explore their characteristics in terms of textual and contextual aspects. The main objective is to appreciate these texts so that their characteristics can be highlighted and utilised in enhancing the development of both creative writing and literary criticism.

Broadening & Deepening Electives: Mathematics

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
Mathematics	AAM08B	Mathematical Problem Solving	3	-
	AAM08C	Computer Literacy through Coding and Applications	3	-
	AAM18A	Mathematics Around Us	3	-
	AAM18D	Introductory Mathematics	3	Year 1 AD Math Student Teachers Only
	AAM18G	History of Mathematics I	3	-
	AAM18H	History of Mathematics II	3	-

AAM08B Mathematical Problem Solving

This course prepares you for mathematical problem solving through the use of Polya's 4-phase model. This set of skills forms a basic process ability for all other mathematics courses and enables problem solving for the learning of mathematics.

AAM08C Computer Literacy through Coding and Applications

Computers influence our lives on many scfales: on the macroscale (e.g. Internet, Cloud, AI) on the mesoscale (e.g. MS-Word, PowerPoint, Excel) and on the microscale (e.g. CPUs inside PCs, laptops and smartphones). What binds all these levels together is that they are all based on computer programming, or coding. The main aim of this course is to demystify the influence which computers have by revealing the workings of this underlying computer code.

AAM18A Mathematics Around Us

This course aims to introduce you to the mathematics that we see in different areas of human life not normally associated with science and technology. Most students view mathematics as a pragmatic and powerful tool applied in various fields of science and

technology. This course seeks to lead you to an appreciation of the human aspects of Mathematics through an understanding of its presence in the arts and other common human activities. The course will explore the presence and use of mathematics in the diverse areas where mathematics is less expected, such as art, music, sports, games of chance, coding, voting and elections, magic tricks and puzzles. Selected anecdotes of mathematical discoveries will also be included.

AAM18D Introductory Mathematics

Mathematics is a logically linked knowledge system. A solid foundation in fundamental mathematics is essential for you to learn university level mathematics courses. This course serves as a bridging course for you who are taking mathematics as an Academic Discipline to acquire enough foundational mathematics so that you have the proper prerequisite knowledge to take the undergraduate courses in mathematics.

AAM18G History of Mathematics I

This course aims to introduce you to the origins and historical development of certain fundamental concepts in mathematics from Ancient Times until around 1000 AD by means of a series of case studies. Each case study will highlight the contribution of a particular famous mathematician of history, including their personal motivation and the socio-cultural context in which they were working. Open to both mathematics and non-mathematics majors, this course is aimed at students with an interest in mathematics.

AAM18H History of Mathematics II

This course aims to introduce you to the continued historical development of certain advanced concepts in mathematics from around 1000 AD until the Present Day by means of a series of case studies. Each case study will highlight the contribution of a particular famous mathematician of history, including their personal motivation and the socio-cultural context in which they were working. Open to both mathematics and non-mathematics majors, this course is aimed at students with a strong interest in mathematics.

Broadening & Deepening Electives: Music

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
Music	AAI08A	Piano Ensemble	3	1. ABRSM grade 6 or equivalent in piano 2. Audition
	AAI08B	Singing with Freedom	3	Audition
	AAI08C	Popular Music Arrangement with Technology	3	1. Basic keyboard skills and/ or be able to play popular instruments 2. Audition
	AAI16B	Baroque and Classical Musical Practices	3	
	AAI16C	Romantic and 20th Century Musical Practices	3	
	AAI16J	Music Theory for Diverse Sonic Worlds I	3	-
	AAI16K	Ethnomusicology in the Singapore Context	3	-
	AAI16G	Composing and Arranging	3	-
	AAI16H	Aural Skills for the 21st Century Musician	3	-
	AAI26B	Music Theory for Diverse Sonic Worlds II	3	AAI16J
	AAI28C	Percussion	3	-
	AAI28D	Studies in Indonesian Gamelan I	3	-
	AAI28E	Studies in Free Improvisation	3	-
	AAI38A	Studies in Indian Music	3	-
	AAI38B	Studies in Japanese Music	3	-
	AAI38C	Classical Guitar I	3	-
	AAI38D	Choir I	3	Audition
	AAI38E	Choir II	3	Audition
	AAI38Q	Voice	3	-
	AAI38J	Band I	3	-
	AAI38K	Band II	3	-
	AAI38L	Further Percussion	3	AAI28C or audition
	AAI38N	Studies in Indonesian Gamelan II	3	AAI28D
	AAI38R	Conducting	3	-
	AAI48A	Studies in Chinese Music	3	-
	AAI48B	Studies in Malay Music	3	-
	AAI48C	Classical Guitar II	3	AAI38C
	AAI48D	Choir III	3	Audition
	AAI48E	Choir IV	3	Audition
	AAI48G	Studies in Pop and Jazz	3	-
	AAI48J	Band III	3	-
	AAI48K	Band IV	3	-

Note: Students who wish to take up any Music BDE must either satisfy stated pre-requisites for specified courses or, where pre-requisites are not specified, must attend the first session for that elective, called an audition, to determine their suitability.

AAI08A Piano Ensemble

This elective course provides opportunities for pianists to engage in collaborative playing with other pianists, including 4-hands/1 piano, 4-hands/2 pianos, and 8-hands/2 pianos. It aims to foster an appreciation and passion for piano ensemble repertoire, develop individual and ensemble pianistic skills through discipline and teamwork, and nurture the confidence to perform in a concert setting.

AAI08B Singing with Freedom

This elective course aims to free up your singing voice, enriching your tone, resonance, stamina and ease of vocal production. Throughout this course, you will experience the McClosky Voice Method*, a simple series of relaxation exercises and steps for correct postural alignment that can improve the singing voice. By becoming attuned to the physical process, you will attempt to use these techniques in all singing situations. There are ample hands-on sessions where experienced Certified McClosky Voice Technician** help you to improve your vocal technique with individualized attention using song excerpts from various genres.

*The McClosky Voice Method is based on the work of David Blair McClosky (1902-1988). In the 1950s, in collaboration with otolaryngologists at Syracuse University and the Massachusetts Eye and Ear Infirmary in Boston, he developed techniques to resolve vocal problems without surgery. It is now used by performing musicians, speakers, and teachers to maintain healthy, resilient voices even under demanding conditions.

**Certified McClosky Voice Technicians (CMVTs) are voice teachers, professional singers and speakers, music educators, choral conductors and speech and language pathologists. They are experienced in helping other professional voice users to modify their vocal habits to rebuild and enhance healthy, robust and lasting speaking and singing voices.

AAI08C Popular Music Arrangement with Technology

This elective course aims to provide you with an introduction to the knowledge and tools to record and arrange popular music. Using one of the most ubiquitous music-making tools in the market, GarageBand, this practical course allows you opportunities to explore recording and editing melodies, harmonies, and basic bass & drum patterns using software instruments. You will also explore the use of Apple Loops to enhance your arrangement ideas. In addition, you will learn about the specific musical terms and concepts that will help you better understand and describe your music arrangement. Through this experience, you will deepen your technological content knowledge and at the same time improve self-efficacy in the development of your musical abilities.

AAI16B Baroque and Classical Musical Practices

This course seeks to introduce to student teachers Western musical practices by situating them in a social and historical context. Musical practices, via creating performing and responding, form the basis of learning about any specific musical practice and the activity of experiencing and reflecting on the musical practice. Each musical practice would have to be viewed from its own culturally situated and practice specific context. This course acknowledges a constructivist paradigm in the teaching and learning of and about music asserting

knowledge as being uniquely constructed by individuals. Learning is facilitated in an environment, which is created and/or constructed by both student teachers and facilitators as stakeholders.

AAI16C Romantic and 20th Century Musical Practices

This course, the subsequent in the series, represents a further development in learning Western musical practices, via creating performing and responding, from a culturally situated and practice specific context. Through this course, student teachers will acquire concepts about construction of greater/lesser in musical traditions and ramifications of such a construction. Learning is facilitated in an environment which is created and/or constructed by both student teachers and facilitators as stakeholders.

AAI16J Music Theory for Diverse Sonic Worlds I

This first-year course puts you on a journey to examine and understand a select range of music – Western classical, a variety of pop, as well as Chinese traditional and Malay traditional musics – in a culturally-informed and, where relevant, non-Western centric manner. You will also learn the traditional SATB writing and two-part counterpoint not for its own sake but as a means to achieve a more generalized understanding of compositional thinking beyond the Western classical paradigm.

AAI16K Ethnomusicology in the Singapore Context

This course will help you develop a deeper understanding of Singapore's vibrant multicultural landscape and the cultural richness of its music-making. Through hands-on experiences with zapin and joget dance traditions, Javanese gamelan, and South Indian karṇāṭak music, you will discover how

music connects people, reflects identities, and shapes shared experiences in Singapore's multicultural society.

AAI16G Composing and Arranging

This course aims to develop foundational skills in melody writing, arrangement, and composition structuring. Upon course completion, you will be able to compose short pieces involving melody and accompaniment, as well as gain some technical understanding of what makes an effective composition. By composing a piece for fellow course mates to play live, you will have an authentic situation to put your technical knowledge into practice, evaluate fyour composition, as well as communicate your musical ideas to other musicians.

AAI16H Aural Skills for the 21st Century Musician

This course aims to provide a firm foundation in aural skills for the 21st Century musician in the globalized Singapore context, drawing in particular on Western Classical music, popular music/jazz, and music from diverse cultures (e.g., Chinese, Malay, Indian). You will be introduced to key listening skills to help you develop a critical ear, aural awareness, and cross-cultural sensitivity to music across different traditions, styles, and genres. Throughout the course, you will develop foundational aural skills (e.g., sight-singing/solfège-singing (including using cipher notation), dictation/aural transcription skills, and abilities to identify harmonies, timbres, other musical and stylistic features through a spiral approach.

AAI26B Music Theory for Diverse Sonic Worlds II

This second-year course will deepen your music-theoretic understanding and broaden your purview to

include Indian and Indonesian traditions. Building on your year-one foundation, we will analyze more demanding pieces of music from repertoire. You will also be more conscious and discerning of musical styles and general features as you continue to learn through compositional exercises.

AAI28C Percussion

This is a practical-based course in percussion playing. Through this course, you will develop performing competencies for a range of percussion instruments as well as develop ensemble playing skills.

AAI28D Studies in Indonesian Gamelan I

This course enables you to come to an enjoyment of Indonesian gamelan music by listening to, playing and reflecting on its practice. This course introduces the basic playing techniques and musical forms of Gamelan and its function in Indonesian society, its role in the music scene of Southeast Asia, and the relevance of Gamelan playing, learning, and teaching in the context of Singapore. The knowledge of traditional gamelan as well as Gamelan in contemporary Southeast Asia contributes to students' understanding of the region. Audio-visual illustrations, which will emphasize cultural and contextual approaches, will be complemented by practical instruction in playing Javanese gamelan music.

AAI28E Studies in Free Improvisation

This course seeks to explore and examine the conceptual formation and practice of Free Improvisation. The approach taken has a number of characteristics:

- Focus, through music-making activities, on Free improvisation as a general human ability and ubiquitous practice.
- Study the phenomenon and practice of Improvisation, via performing and responding activities, from a variety of extra/musical points of view.
- Enabling students, from a variety of disciplines models to experiment and explore, to understand Free improvisation as a holistic phenomenon, with accessibility, contemporaneity and relevance to their undergraduate programme of study and beyond.

AAI38A Studies in Indian Music

This is a practical-based course on South Indian classical and folk music. Through this course, you will acquire an understanding of Indian musical practices and develop Indian vocal techniques and learn songs from the Indian classical and folk repertoire.

AAI38B Studies in Japanese Music

One of the primary goals of this course is for you to gain some perspectives on Japanese music in its geographically as well as historically unique context. You will do so through various in-class activities, not only lectures and discussions but also actual performances you create together. This way, you become active participants (not just observers).

AAI38C Classical Guitar 1

In this beginner's course for aspiring guitarists, you will learn to play the classical guitar. The course covers basic guitar playing techniques as well as understanding basic guitar notation. Basic fingerstyle

playing will also be introduced in addition to using the guitar for accompaniment with chord symbols (major, minor and dominant seventh). Music from different genres (e.g. classical, evergreen, latest popular songs) will be taught.

AAI38D Choir I

This course requires you to participate in the NIE Choir. It consists of a study of choral repertoire from all periods of Western Art Music, concentration on vocal and choral techniques as related to musical styles, preparation and presentation of concerts.

AAI38E Choir II

This course requires you to participate in the NIE Choir. It consists of a study of choral repertoire from all periods of Western Art Music, concentration on vocal and choral techniques as related to musical styles, preparation and presentation of concerts.

AAI38Q Voice

This elective course will help you to gain insights and practical experience on healthy voice usage and optimizing your speaking and/or singing voice. Voice quality and analysis are approached through the McClosky Method. The McClosky Voice Method* will be introduced as a means to gain insight and practical experience on healthy voice usage. You will learn to approach basic problems in voice quality and analyse the issues in the use of the voice. By becoming attuned to the physical process, you will attempt to use these techniques in all speaking and singing situations. There are ample hands-on sessions where and experienced Certified McClosky Voice Technician** help you to improve your vocal technique with individualized attention.

*The McClosky Voice Method is based on the work of David Blair McClosky (1902-1988). In the 1950s, in collaboration with otolaryngologists at Syracuse University and the Massachusetts Eye and Ear Infirmary in Boston, he developed techniques to resolve vocal problems without surgery. It is now used by performing musicians, speakers, and teachers to maintain healthy, resilient voices even under demanding conditions.

**Certified McClosky Voice Technicians (CMVTs) are voice teachers, professional singers and speakers, music educators, choral conductors and speech and language pathologists. They are experienced in helping other professional voice users to modify their vocal habits to rebuild and enhance healthy, robust and lasting speaking and singing voices.

AAI38J Band I

This course aims to equip you with the requisite skills to rehearse and perform in a high quality symphonic wind band. Students with prior experience in the wind band will especially benefit from this practice-based course. After the completion of this course, you should be equipped with a secure foundation in ensemble playing, achieve high standards of performance excellence, and learn important values of teamwork in musical contexts. In particular, you should be able to apply your knowledge and skills in a wide range of repertoire and perform with confidence and poise in concert settings.

AAI38K Band II

This course aims to equip you with the requisite skills to rehearse and perform in a high quality symphonic wind band. Students with prior experience in the wind band will especially benefit from this practice-based

module. After the completion of this course, you should be equipped with a good foundation in ensemble playing, achieve high standards of performance excellence, and learn important values of teamwork in musical contexts. In particular, you should be able to apply your knowledge and skills in a wide range of repertoire and perform with confidence and poise in concert settings.

AAI38L Further Percussion

This is a practical-based course in percussion playing and is a sequel to the Percussion course. It further allows you to explore and develop your percussion skills through playing a range of percussion instruments as well as in ensemble.

AAI38N Studies in Indonesian Gamelan II

This course will involve a more detailed study of the different musical aesthetics, changing cultural and social contexts and functions, musical and cultural interaction, and the changing musical “landscape” including contemporary compositions within the tradition as well as compositions which respond by adoption and adaptation of the tradition. Contemporary reflections will also deal with the nature, role and identity, as well as place and relevance, of teaching the Indonesian Gamelan in Singapore schools. This course will continue to teach practical methods of the didactics of Indonesian gamelan practices.

AAI38R Conducting

This course aims to equip you with the requisite skills to conduct music ensembles. Students with prior musical experience will especially benefit from this practice-based course. After the completion of this

course, you should be equipped with a strong foundation in conducting, baton technique, and score study. In particular, you should be able to apply your knowledge and skills across a wide range of musical styles and conduct with poise and confidence in concert settings. Your skills will be developed in a "spiral" fashion whereby the fundamental aspects of conducting and musicianship are continually revisited.

AAI48A Studies in Chinese Music

This course seeks to develop a basic understanding of Chinese music and the instruments used in the Chinese orchestra. It will investigate the development of Chinese music and its significance by tracing records and findings from pre-historic period to present. Different Chinese music notations as well as folk, traditional, and popular/contemporary Chinese music will be explored. Practical studies will also be conducted on folk, traditional, modern, and popular genres through the guzheng.

AAI48B Studies in Malay Music

Through this course, you will learn how to play the Malay framed drums, kompang and the Malay lute, gambus. You will acquire performance techniques such as interlocking rhythmic variations through group performances. You will also learn basic musical elements used in Malay music through critical discussion and evaluating musical performances. Some aspects of Malay culture, customs, and religion will be discussed as an inseparable part of Melayu musical heritage.

AAI48C Classical Guitar II

This course is a follow-up to Classical Guitar I. Through this course, students will learn advanced

guitar playing techniques, including tremolo, tambora, and harmonics, and perform diverse styles classical guitar repertoire. The course will also cover the performance of diminished, augmented, and suspended chords, fingerstyles, and ensemble playing.

AAI48D Choir III

This course offers an opportunity to explore the choral repertoire and further enhance your vocal techniques in the NIE Choir. You will study additional choral repertoire from all periods, with a concentration on vocal and choral techniques as related to musical styles, preparation and presentation of concerts.

AAI48E Choir IV

This course gives you an opportunity to explore the choral repertoire and further enhance your vocal techniques in the NIE Choir. You will study additional choral repertoire from all periods of Western Art Music, concentrating on vocal and choral techniques as related to musical styles, preparation and presentation of concerts.

AAI48G Studies in Pop & Jazz

In this practical-based course, introduces you to the musical nuances and performance techniques of pop and jazz. Through hands-on learning and ensemble performance, you will explore the stylistic elements that define these genres while tracing the development of popular music in the late 20th century, with particular attention to its European and African-American roots.

AAI48J Band III

This course aims to equip you with the requisite skills to rehearse and perform in a high-quality symphonic wind band. Students with prior experience in the wind band will especially benefit from this practice-based course. After the completion of this course, you should be equipped with a strong foundation in ensemble playing, achieve high standards of performance excellence, and learn important values of teamwork in musical contexts. In particular, you should be able to apply your knowledge and skills in a wide range of repertoire and perform with confidence and poise in concert settings.

AAI48K Band IV

This course aims to equip you with the requisite skills to rehearse and perform in a high-quality symphonic wind band. Students with prior experience in the wind band will especially benefit from this practice-based course. After the completion of this course, you should be equipped with a very strong foundation in ensemble playing, achieve high standards of performance excellence, and learn important values of teamwork in musical contexts. In particular, you should be able to apply your knowledge and skills in a wide range of repertoire and perform with confidence and poise in concert settings.

Broadening & Deepening Electives: Natural Sciences & STEM Education

Category / Subject	Course Code	Title	No. of AUs	Pre-requisites
Natural Sciences	AGE08H	Marine Environmental Studies	3	AAB10A or AAY10D or BS1001 or BS1003 or CM1031
	AGE08J	Chemistry in Our Daily Life	3	Biology or Chemistry or Physics or Engineering students
	AGE18A	Physics of Gemstones	3	-
	AGE18M	Chemistry for Life Sciences	3	-
	AGE18U	Mathematics Foundation for Physics	1	-
	AGE18V	Chemistry of Energy Storage and Conversion	3	-
	AGE18W	Chemistry of Membrane Separation	3	-
STEM Education	AGE18N	The Integrated Nature of STEM: Implications for STEM Curriculum Design, Implementation and Evaluation	3	Students majoring in STEM-related programmes
	AGE18Q	Gender Issues in Science, Technology, Engineering and Mathematics (STEM)	3	-
	AGE18R	Foundations to STEM Education	3	-
	AGE18S	Emerging Technologies in STEM and STEM Education	3	-
	AGE18T	Research Perspectives in STEM Education	3	-

Minor in STEM Education

The minor degree in STEM will provide you with foundational understandings about the importance of STEM from the macro perspectives so that you understand why STEM should be taught and learned. Through this minor degree, you will get to develop critical consciousness about gender inclusive practices in STEM fields and be equipped with the language and skills to unpack discriminatory practices in artefacts and structures. You will also be equipped with STEM content knowledge and skills related to important theme such as sustainability so that you acquire deeper and multiplistic understandings of the problems

and solutions as well as imbue understandings about problem-, solution- and user-centric approaches to STEM curriculum. Such approaches may be adopted to create meaningful STEM lessons for learners across ages and context. The minor degree also informs you about the current and future trends in STEM education research so that you may identify areas of interest worthy of pursuit in postgraduate degrees.

The Minor in STEM Education consists of five elective courses (3 AUs / course). Students who have completed all five courses (15 AUs) with passing grades can be offered the Minor in STEM Education.

AGE08H Marine Environmental Studies

This introductory course to marine environmental studies provides an overview of the basic concepts of biodiversity, toxicology, and drug discovery, focussing on tropical marine ecosystems. You will examine biological adaptation and function of marine organisms in relation to environmental changes in practice-based classes. The focus will be on coral reef, seagrass, mangrove, and soft bottom benthic habitats, from organismal to ecosystem approaches. Additionally, the course will examine current practices of marine biotechnology, including bioprospecting of marine resources for medical applications. As these are current topics with global perspectives, participants who intend to be educators in the future will have an opportunity to experience relevant inquiry approaches to understanding and teaching marine environmental studies at the primary and secondary school levels.

AGE08J Chemistry in Our Daily Life

This course will introduce you to the concepts of chemistry, using daily activities as examples to fulfil the following objectives:

- appreciate the roles and impact of chemistry on daily life necessities.
- illustrate the importance of chemistry in our daily lives through experiments.
- identify and describe physicochemical phenomena of healthcare, perfumery, clothing, electronics, home decor, automotive, and food products.

AGE18A Physics of Gemstones

This is a course to help you appreciate and understand the physics of gemstones. It aims to equip you with the knowledge to understand the basic physics related to gemstones. You will apply the basic concepts in physics to assess and identify gemstones and their imitations.

AGE18M Chemistry for Life Sciences

This is a fundamental course on chemistry to support life sciences study. It aims to equip students with the knowledge to understand the behaviour chemical species in different life science applications. Laboratory experiments will be incorporated to develop chemical technical skills to support life science applications.

AGE18N The Integrated Nature of STEM: Implications for STEM Curriculum Design, Implementation and Evaluation

The aim of this course is to provide you (as an undergraduate) with an integrated STEM learning experience by exposing you to activities that require you to model after real STEM professionals in problem-solving and problem-finding. This course will allow you to apply STEM-related knowledge and engage in STEM-related practices to find and solve

real world problems. Through this process, you will gain experience and insights into how STEM professionals work, learn to apply their STEM knowledge, appreciate the educative and practical value of what you learn in your STEM-related content courses, and be inspired to pursue a STEM-related higher degree and/or career upon graduation.

AGE18Q Gender Issues in Science, Technology, Engineering and Mathematics (STEM)

This course aims to introduce the topic of gender issues in science, technology, engineering, and mathematics (STEM) domains. These domains have gained increasing attention locally and internationally as it concerns the development of a quality workforce, the social status of women, and the construction of knowledge. Through this course, participants will become more critically aware of the issues confronting women in these domains and identify ways to address them.

AGE18R Foundations to STEM Education

This course offers a macro perspective to STEM education and policies. In this course, you will be introduced to the narratives about STEM education. From the course readings, you will appreciate the genesis of STEM education and the evolution of STEM education as an emerging construct in countries around the world. Connections to important policy documents from the United Nations, OCED, and McKinsey reports will be drawn. This course serves as a foundation to a better appreciation of the proliferation and emphasis on STEM education around the world. This course will interest students who want a better understanding of studying STEM disciplines. There will be a local/overseas field trip for this course.

AGE18S Emerging Technologies in STEM and STEM Education

STEM curriculum should ideally provide learning contexts for students to acquire cross-disciplinary knowledge in authentic and applied contexts. STEM inventions and innovations are constantly emerging and evolving and hence, having current knowledge of emerging technologies in STEM fields will be useful in STEM curriculum design, teaching and assessment. In this course, you will acquire basic knowledge about emerging technologies in STEM fields and apply them to the design of integrated STEM curriculum in informal learning contexts such as hackathons and makerspaces.

AGE18T Research Perspectives in STEM Education

This course introduces you to the diverse theoretical paradigm of education research in STEM education. In this course, you will learn about theories in teaching/learning, sociology, and cultural studies. You will apply selected theories and/or constructs from these fields of work to discuss issues in STEM education. This is an introductory course that will be of interest to students who are interested in postgraduate studies. They will be able apply a theoretical lens to dialogue about diverse topics in STEM education.

AGE18U Mathematics Foundation for Physics

This course aims to build up your knowledge, deepen your understanding, and hence improve your confidence in making use of mathematical concepts in the physics courses.

AGE18V Chemistry of Energy Storage and Conversion

This course provides a foundational understanding of energy storage and conversion, focusing on batteries, water electrolysers, and fuel cells. It introduces key electrochemical principles and explores the materials, efficiency, and sustainability of these technologies. You will engage in both theoretical learning and hands-on demonstrations to deepen your understanding of energy storage systems, their real-world applications, and their role in advancing sustainable energy solutions within the circular economy.

AGE18W Chemistry of Membrane Separation

This course introduces the chemistry of membrane separation technologies, focusing on their applications in water purifi cation. You will explore different types of membranes, filtration mechanisms, and the challenges faced in membrane filtration. The course also covers advanced membrane technologies, materials, and sustainable practices in the field. Through theoretical lessons and practical demonstrations, you will gain an understanding of how these technologies contribute to addressing global water purification challenges.

Broadening & Deepening Electives: Social Studies

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
Social Studies	AAL28A	Singapore Studies	3	-
	AAL28E	Identities in a Diverse World	3	-
	AGE08B	Sociology of Education	3	-

AAL28A Singapore Studies

This course will provide you with a foundational understanding of politics, political ideologies and governance in the context of Singapore's development as a state and society. We will examine critical concepts, issues and debates that undergird important facets of any state and society and apply them to the Singapore context.

AAL28E Identities in a Diverse World

This course provides you with an introduction to the concept of identity, and invites you to think about key identity facets that are relevant to living in today's world of increasing diversity. The course guides you to see identity both in terms of a micro-level psychosocial process and in terms of a more macro-level sociological process, and to think about how these two processes interact. Through various learning activities, you will explore at some depths key aspects or issues relating to identity including race and ethnicity, nation/nationalism, xenophobia and racism, assimilation and integration, multiculturalism and transnationalism, class, gender, and cosmopolitanism(s).

AGE08B Sociology of Education

This course introduces students to key perspectives and themes in the sociology of education. Sociology of education studies education as an integral part of

larger social systems and institutions, often with a critical view on the ways in which education is implicated in the relations of power and inequality that traverse these systems and institutions. Theoretical perspectives covered in this course include the functionalist, the Marxist/Marxian, and various other critical perspectives hinging on social differences such as culture, power, gender, race/ethnicity. Other important themes examined in the course include neoliberal-ism/ization, globalization and inter-/trans-national mobility, curriculum, critical pedagogy and alternative education.

Broadening & Deepening Electives: Physical Education and Sports Science

Category/ Subject	Course Code	Title	No. of AUs	Pre-Requisites
Physical Education and Sports Science	AGE08G	Introductory Coding and IoT for Sports, Exercise and Physical Education	3	-

AGE08G Introductory Coding and IoT for Sports, Exercise and Physical Education

This is an introductory course that aims to equip the students with background knowledge of sport technology and basic coding competencies for inventing a simple Internet of Things (IoT) prototype for use in sports, exercise and physical education. Students will first learn about technologies currently adopted in sports, exercise and physical education settings. From there, a major expectation of this course is for students to conceptualise and develop a proof-of-concept IoT prototype for use in sports, exercise or physical education situations. Students will learn to programme Android apps using MIT App Inventor and link it with Arduino to make their IoT prototype. Additionally, students will learn basic R programming to process, analyse and visualise data collected from their IoT prototype. While contents on programming tools are covered at a basic level, it is intended that students will be able to proceed with their creative explorations in coding and IoT for use in the sport and physical education settings after attending this course with these gentle introductions of coding and IoT prototyping.

Broadening & Deepening Electives: Science of Learning

Category/ Subject	Course Code	Title	No. of AUs	Pre-Requisites
Science of Learning	AGE06A	Brain Literacy for Educators	3	-
	AGE06B	Applications of Educational Neuroscience	3	-
	AGE06C	Socio-Emotional Development from a Neuroscience Perspective	3	-
	AGE06D	Neurodiversity and the Learning Experience	3	-
	AGE06E	Neuroscience, Computational thinking and AI in Learning	3	-

AGE06A Brain Literacy for Educators

This course aims to equip students with an understanding of a learner's brain in learning areas such as reading, writing, computing mathematics and executive functioning. By analysing the structural and functional organization of the brain, students will be more informed about popular neuromyths such as learning styles and age-appropriate learning stages. This course will also explore how such insights into the learner's brain can be used to inform choices about learning environments and practices for teaching and learning. Educators looking to understand the inner workings of a learner's brain would find this course useful.

AGE06B Applications of Educational Neuroscience

This course aims to equip students with a theoretical basis for the development of efficient pedagogies. With an emphasis on translating neuroscientific findings into practical learning strategies and applications, this course will provide students with the requisite understanding to evaluate existing classroom practices as well as to develop new ones informed by brain science. Students who are interested in how neuroscience findings can help optimize teaching and learning would find this course useful.

AGE06C Socio-Emotional Development from a Neuroscience Perspective

In conversations to optimize learning in educational contexts, it is crucial that equal focus be placed on both cognitive and affective neurosciences. This course aims to explore the complex interplay between a learner's social and emotional competencies, and their learning processes through the lens of affective neuroscience. Using this knowledge, students will be able to evaluate and develop strategies to manage learners' emotions and behaviour in class to optimise learning.

AGE06D Neurodiversity and the Learning Experience

This course aims to discuss the managing of neurologically diverse learners in order to maximize learning. Since learners are themselves unique individuals, every learning environment is arguably a neurologically diverse space. Learners who are at different developmental stages will face different cognitive, affective, and social factors that can impact their learning. Educators and students who are interested in developing a deeper understanding of how neurodiverse factors can influence a learner's ability to navigate their learning would find this course useful.

AGE06E Neuroscience, Computational thinking and AI in Learning

This course explores the emerging field of Computational Thinking and Artificial Intelligence, paying special attention to the body of work emanating from Educational Neuroscience research. Students will learn about trends in computational thinking, computing, artificial intelligence and educational neuroscience developments and their applicability for

teaching and learning. Relatedly, this course explores how technology can be effectively incorporated into the design of learning environments as well as modes of learning and assessment. Students interested in understanding how technologies intersect with neuroscience would benefit from taking this course.

Broadening & Deepening Electives: Tamil Language and Tamil Literature

Category/ Subject	Course Code	Title	No. of AUs	Pre-Requisites
Tamil Language and Tamil Literature	AAT08A	Tamil Diaspora Social Life and Language Use	3	#
	AGT08A	Tamil Culture and Lifestyles through Movies	3	-
	AGT08B	Tamil Culture through Food and Festivals	3	-

Pre-Requisites: Students should be fluent in spoken and written Tamil Language because the course will be taught in Tamil.

AAT08A Tamil Diaspora Social Life and Language Use

The course aims to introduce you to the historical background of Tamils in different diasporic communities. You will understand ways in which their language and culture were maintained and be introduced to concepts for explaining the changes in Tamil language development. You will also learn about the lifestyle of migrated Tamils in different countries and understand their culture, customs, habits, as well as changes found in the domains of their social life. You will be involved in a small research project and will share via a Hybrid (simultaneously online and offline) International Symposium on Tamil Language, Culture, and Heritage of Diaspora Tamil Communities, held during your Field trip to an ACI country during Recess Week.

AGT08A Tamil Culture and Lifestyles through Movies

This course aims to introduce and explore the Tamil culture and lifestyles of Tamils through Tamil movies and television programmes. Movies are rich in their language content, music, songs, visual effects and stories. Tamil movies in particular are very popular with the Tamil community both in India and overseas. In this course, you will learn about and understand Tamil culture and lifestyles, including those of the

Tamil diaspora communities, through a study of sample movies.

AGT08B Tamil Culture through Food and Festivals

This course introduces ancient and contemporary Tamil culture through Tamil food and festivals. Every community has its food heritage, and their festivals embody their cultural and religious beliefs. This course will equip you with a greater understanding and appreciation of Tamil food culture and traditional festivals.