BACHELOR OF ARTS (EDUCATION)

BACHELOR OF SCIENCE (EDUCATION)

Nanyang Technological University
National Institute of Education
1 Nanyang Walk
Singapore 637616
Republic of Singapore

NTU Reg. No. 200604393R

July 2022

ENQUIRIES

For enquiries on Admission and Programme matters, visit https://smscrm.ntu.edu.sg/en-US/enquiry/.
Select the following on the form:

Question	Selection
What is your enquiry?	Undergraduate Admissions
Please provide more details:	**For Admission matters:** Education (NIE) Diplomas and Degrees - Admissions enquiries **For Programme Enquiries:** Education (NIE) Bachelor of Arts/Science (Education) - Programme enquiries
What programme are you interested in?	Bachelor of Arts (Education) **OR** Bachelor of Science (Education)

For enquiries on BA/BSc (Ed) Academic matters:

babsc@nie.edu.sg

You may wish to visit the following NIE homepage for information on Initial Teacher Preparation (ITP) programmes:

https://www.nie.edu.sg

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
Applications 7
Other Requirements 10
Matriculation and Registration 19
Examinations, Assessment of Coursework, Research & Practicum 20
GEM Explorer 31
International Practicum 32
NIE-administered Semester Exchange 33
Academic Structure of Programmes 34
Structure of Degree Programmes 35
BA (Ed) / BSc (Ed) Programmes 36
BA (Ed) (Primary) (General) (Three Curriculum Studies) Programme 45
BA (Ed) (Primary) (General) (Two Curriculum Studies) Programme 51
BA (Ed) (Primary) (Chinese/Malay/Tamil Language Specialisation) Programme 56
BA (Ed) (Secondary) (General) Programme 61
BA (Ed) (Secondary) (Chinese/Malay/Tamil Language Specialisation) Programme 67
BSc (Ed) (Primary) (General) (Three Curriculum Studies) Programme 73
BSc (Ed) (Primary) (General) (Two Curriculum) Programme 79
BSc (Ed) (Primary) (Physical Education and Sports Science) Programme 85
BSc (Ed) (Secondary) (General) Programme 91
BSc (Ed) (Secondary) (Physical Education and Sports Science) Programme 98
Education Studies 105
Curriculum Studies 119
Art (Primary) 122
Chinese Language (Primary) 124
Chinese Character and Citizenship Education (Primary) 128
English Language (Primary) 130
Malay Language (Primary) 134
Malay Character and Citizenship Education (Primary) 137
Mathematics (Primary) 139
Music (Primary) 142
Physical Education (Primary) 146
Science (Primary) 160
Social Studies (Primary) 162
Tamil Language (Primary) 165
Tamil Character and Citizenship Education (Primary) 168
Art (Secondary) 170
Biology (Secondary) 173
Chemistry (Secondary) 175
Chinese Language (Secondary) 178
Chinese Literature (Secondary) 181
Drama (Secondary) 183
English Language (Secondary) 186
English Literature (Secondary) 189

Food and Consumer Sciences (Secondary) 192
Geography (Secondary) 194
History (Secondary) 196
Malay Language (Secondary) 200
Malay Literature (Secondary) 202
Mathematics (Secondary) 204
Music (Secondary) 207
Physics (Secondary) 209
Physical Education (Secondary) 212
Social Studies (Secondary) 219
Tamil Language (Secondary) 221
Tamil Character and Citizenship Education (Secondary) 224
Subject Knowledge 226
Art 227
English Language 229
Mathematics 231
Science 233
Social Studies 235
Academic Subjects 237
Art 240
Biology 249
Chemistry 257
Chinese Language 267
Chinese Literature 276
Drama 279
English Language 292
English Literature 311
Food and Consumer Sciences 324
Geography 331
History 347
Malay Language 366
Malay Literature 374
Mathematics 376
Music 391
Physical Education & Sports Science 406
Physics 416
Social Studies 425
Tamil Language 428
Tamil Literature 435
Essential Course 439
Language Enhancement and Academic Discourse Skills 440
Practicum 442
General Electives 445

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 (NTU).

NIE's Vision

An Institute of Distinction:
Leading the Future of Education

NIE's Mission

Inspiring Learning, Transforming Teaching, Advancing Research

Degree Programmes Offered

Student teachers in the bachelor's degree programmes are registered as undergraduates of Nanyang Technological University.

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

- Bachelor of Arts (Education)
  [BA (Ed)] (full-time)

- Bachelor of Science (Education)
  [BSc (Ed)] (full-time)

The above programmes include those specialising in Chinese Language & Literature, Malay Language & Literature, Tamil Language & Literature and Physical Education & Sports Science as part of their academic and curriculum subjects.

All these programmes are administered by the Office of Teacher Education which is committed to nurturing future-ready educators.

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

Aims of the BA (Ed) & BSc (Ed) Programmes

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

The programme aims to enable graduands to be scholars and educators with comprehensive knowledge and inquiry skills to excel in careers in education, education-related fields and beyond.

The curriculum of these programmes is broad-based, with a strong emphasis on inquiry in the form of research in the academic and education subjects. The curriculum is also individualised, to the graduand's professional interests and aspirations. With the rigour expected of any internationally recognised undergraduate programme, our graduands are able to pursue advanced qualifications in both the academic disciplines and the field of education.

Duration of the BA (Ed) & BSc (Ed) Programmes

The programmes extend over a period of four years and lead to the award of the degree of Bachelor of Arts (Education) or Bachelor of Science (Education). Student teachers may be awarded an honours degree based on excellent overall performance in the four-year programmes. The minimum period of study required for the degree of BA/BSc (Ed) 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 Premier Scholars' Programmes (PSP). 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 includes an exciting multi-disciplinary curriculum that supplements the core curriculum in the Bachelor of Arts (Education) / Bachelor of Science (Education) programme. It offers a wide range of electives, seminars, internships, leadership programmes, and learning opportunities (local as well as international) that promise 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.nie.edu.sg).

Building University Interns for Leadership Development

The BUILD (Building University Interns for Leadership Development) programme serves to provide a structured process for the student teachers of the Teaching Scholars Programme at NIE to derive optimal experiences and benefits from learning and serving with relevant institutions, organisations, agencies and companies so as to develop them in their future roles as educational leaders. The BUILD Programme encompasses a 5-week internship stint that challenges the student teachers to apply knowledge learnt in the university to situations beyond the classrooms by working on a specific project in the organisation. The student teachers are encouraged to acquire good corporate practices and enhance personal growth in life competency skills as well as values.

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 is currently divided into two semesters.

The Academic Unit (AU) provides a consistent measure of the student teacher's academic workload related to both class attendance and independent preparation. Used to weight courses in a subject taught for the duration of one semester of 13 teaching weeks, each Academic Unit represents an average workload of one hour per week in the form of lecture/tutorial classes, or three hours per week in the form of laboratory/field work sessions. For example, a typical course with one lecture hour per week and one tutorial hour per week carries 2 AUs. Academic Units are calculated on a course basis, that is, subjects are made up of courses, and each course carries a certain number of AUs.

Academic Calendar

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

Programme	Dates of Orientation (O+) Teaching Weeks (TW) / Recess (R) / Vacation (V)	Dates of Revision / Examination / Compulsory Events	Dates of Practicum
BA/BSc (Ed) Year 1	**Semester 1** O+ : 13 Jul 2022 – 19 Jul 2022 01 Aug 2022 – 05 Aug 2022 TW : 08 Aug 2022 – 02 Dec 2022 R : 24 Sep 2022 – 02 Oct 2022 V : 03 Dec 2022 – 08 Jan 2023 **Semester 2** TW : 09 Jan 2023 – 05 May 2023 R : 25 Feb 2023 – 02 Mar 2023 V : 06 May 2023 – 06 Aug 2023**	12 Nov 2022 – 02 Dec 2022 15 Apr 2023 – 05 May 2023	NIL BUILD: 08 May 2023 – 23 Jun 2023 26 Jun 2023 – 07 Jul 2023 (2 weeks of School Experience during the vacation before Year 2)
BA/BSc (Ed) Year 2	**Semester 1** TW : 08 Aug 2022 – 02 Dec 2022 R : 24 Sep 2022 – 02 Oct 2022 V : 03 Dec 2022 – 08 Jan 2023 **Semester 2** TW : 09 Jan 2023 – 05/19 May 2023@ R : 25 Feb 2023 – 02 Mar 2023 V : 06/20 May 2023 – 06 Aug 2023**	12 Nov 2022 – 02 Dec 2022 15 Apr 2023 – 05 May 2023	NIL 26 Jun 2023 – 28 Jul 2023 (5 weeks of Teaching Assistantship during the vacation before Year 3)
BA/BSc (Ed) Year 3	**Semester 1** TW : 08 Aug 2022 – 02 Dec 2022 R : 24 Sep 2022 – 02 Oct 2022 V : 03 Dec 2022 – 08 Jan 2023 **Semester 2** TW : 09 Jan 2023 – 05 May 2023 R : 25 Feb 2023 – 02 Mar 2023 V : 06 May 2023 – 06 Aug 2023**	12 Nov 2022 – 02 Dec 2022 15 Apr 2023 – 05 May 2023	NIL 26 Jun 2023 – 28 Jul 2023 (5 weeks of Teaching Practice 1 during the vacation before Year 4)
BA/BSc (Ed) Year 4	**Semester 1** TW : 08 Aug 2022 – 02 Dec 2022 R : 24 Sep 2022 – 02 Oct 2022 V : 03 Dec 2022 – 08 Jan 2023 **Semester 2** TW : 09 Jan 2023 – 05 May 2023 R : 11 Mar 2023 – 19 Mar 2023	12 Nov 2022 – 02 Dec 2022 15 Apr 2023 – 05 May 2023 08 May 2023 – 19 May 2023 (Beginning Teachers' Orientation Programme – Attendance is Compulsory)	NIL 20 Feb 2023 – 05 May 2023* (10 weeks of Teaching Practice 2)

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

** Practicum starts during vacation period

@ Student Teachers taking CS English Language will attend CELS sessions from 08 to 19 May 2023

Applications

Application through the Nanyang Technological University

Applications for admission must be submitted online through the Nanyang Technological University (NTU) website at 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 www.ntu.edu.sg and https://www.moe.gov.sg/careers/become-teachers.

1 Minimum Entry Requirements for the BA/BSc (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 Subject Pre-Requisites

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 academic group) as well as the availability of vacancies.

Special Academic Subject Requirements

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 Language and Chinese Literature

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

Drama

No academic pre-requisites.

Students will be required to pass a group workshop-interview.
The interview will explore interest in and past experience of Drama.
Students are required to be adventurous, imaginative and spontaneous.

English Language

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

English Literature

No pre-requisites

Geography

No pre-requisites

History

No pre-requisites

Malay Language and Malay Literature

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

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: Candidates 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.

Physical Education & Sports Science

A pass in the Physical Proficiency Test conducted by NIE.

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

Physics

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 Language and Tamil Literature

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(c) 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. Student teachers are to refer to the Course Registration schedule posted on the NIE portal for registration of courses offered in Semesters I and II.

Student teachers can register for or drop a course offered in the semester within the first week of that semester. A course that is dropped within the first week of a semester will not appear in the student teacher's official transcript.

A student teacher who drops a course after the deadline, that is the end of the first week of a semester, 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 Jun/Jul period (e.g. Teaching Assistantship) at the end of an academic year before the start of a new academic year, student teachers must register for the practicum course in Semester 1 of the new academic year (July rather than December's registration exercise). Therefore, registration for that practicum posting is done after it has been completed.

Enrolment

Although student teachers usually get to read the subject/courses of their own choice, the final choice of subjects/courses sometimes has to be determined by the Dean, Teacher Education/Heads/Co-ordinators of subjects concerned. Student teachers 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 prepared before the registration exercise.

Examinations, Assessment of Coursework, Research & Practicum

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

Student teachers 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 BA/BSc (Education). Student teachers are responsible for ensuring that they register for all the courses and examinations necessary to fulfil the requirements of their programme of study.

Student teachers 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 teachers in all attempts are reflected on the official transcript. The degree classification will be based on the CGPA student teachers 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 (Education) BSc (Education)	4	3½	6
BA (Education) BSc (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 non-letter 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
S	-	Satisfactory
U	-	Unsatisfactory

3 The Cumulative Grade Point Average (CGPA) represents the grade average of all courses (including failed courses) attempted by a student teacher.

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 Student teachers are not allowed to repeat any courses taken except those with 'F' grade.

7 The requirements for graduation are as follows:

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

Programme	**Minimum Years of Study At NTU**	**Minimum AU Of Graded Courses Obtained from NTU/NIE**
4-year programmes - For student teachers admitted in Year 1 - For student teachers admitted directly into Year 2	3½ academic years 2½ academic years	69 AUs 69 AUs

The balance AU may consist of AUs earned from courses with Pass(P), Exempted(EX) and Satisfactory(S) notations

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

8 The criteria for satisfactory academic standing in any given semester are:

a) Maintaining a minimum CGPA of 2.00

b) Completing at least 75% of the normal AU workload

9 Student teachers 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 teachers' exchange programmes will be excluded from the CGPA computation. But they will be counted toward the academic unit requirement for graduation, and reflected on the transcript.

12 The cut-off for BA (Ed)/BSc (Ed) classification 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.

Satisfactory/Unsatisfactory Option

1 The S/U option allows a student teacher to take a course on an 'ungraded' basis i.e. no letter grade such as A, B, etc will be awarded. A course will be indicated as 'S' (Satisfactory) if the final letter grade obtained is a 'D' or better. Conversely, it will be indicated as 'U' (Unsatisfactory) if the grade obtained is 'F'. The descriptor 'Satisfactory' or 'Unsatisfactory' will appear in the result slip and the transcript issued by the University.

2 A student teacher will receive AU towards his degree only if he attains an 'S' (Satisfactory) grade. He earns no AU for courses with a 'U' grade.

3 The 'S' or 'U' notations carry no grade point and hence have no effect on the CGPA and the classification of degrees.

4 Student teachers may exercise the option for up to 12 AUs for the 4-year programme. For student teachers who are admitted directly to the second year of a 4-year programme, the quota is 9 AU.

5 The S/U option is only applicable to Prescribed Electives above stipulated requirements (student teachers must fulfil all requirements of Prescribed Electives first) and to General Electives. Pass/Fail courses including courses taken at the host universities during exchange programme are excluded from the S/U option.

6 The S/U option that student teachers have exercised for a course is irrevocable. Hence, student teachers who have invoked S/U cannot appeal for the course(s) to be reversed to letter grade(s) after the exercise for S/U option is over. The S/U option cannot be applied retrospectively after the declaration period or to courses that student teachers have already completed for letter grades.

7 A student teacher who obtains a 'U' can repeat the course. However, the 'U' grade that he gets for his first attempt will remain

in his academic record and will be printed in the transcript issued by the University. Once a course has been placed under the S/U option, the repeat attempt(s) of the same course will also fall under the S/U option.

Freshmen Year GPA Exemption

1 Effective from AY2014-2015, up to six letter-graded courses that do not make the pass grade on the first attempt in the Freshmen Year will be excluded from GPA computation. This applies to examinable and non-examinable courses taken in the student teacher's first two semesters of study in NIE. This exemption is only applicable to student teachers who are admitted into Year 1 of study.

2 GPA exemption is not applicable for courses with fail grade taken on second or subsequent attempts on the Freshmen Year.

3 The unused quota of six courses will lapse after the Freshmen Year.

4 The grades for all attempts, including those exempted from GPA computation, will remain on the transcript.

Certificate in English Language Studies (CELS)

BA/BSc (Ed) (Primary) student teachers doing English Language as a Curriculum Studies (CS) but not studying English as an Academic Studies (AS) subject are required by the Ministry of Education to do language enhancement courses leading to the Certificate in English Language Studies (CELS). Spread over the first, second and third years of the degree programme, CELS courses are designed to benefit student teachers in two ways: to equip them with the content knowledge for teaching English confidently, and to enhance their language and communication skills so that they can serve as good models of spoken and written English.

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.

Talks, Seminars, Workshops and Other Activities

During the period of training, student teachers are expected not only to study diligently but also to participate actively in talks, seminars, workshops and other activities organised for them. These activities form an integral part of the programme. We also strongly encourage student teachers to be fully involved in student life activities organised by NTU and NIE student clubs.

Academic Integrity

The Institute advises all student teachers 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. Student teachers 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 NIE Portal for more details.

Ethics and Moral Reasoning Course

NTU undergraduates have moral/ethical duties as participants in an institution of higher learning, as citizens of a diverse nation, and as human beings in co-existence with others. HY0002 is a 1 AU GER online learning course designed to provide NTU undergraduates with an opportunity to analyze and appreciate basic moral/ethical values such benevolence, impartiality, and integrity. These basic values will be explored from the perspective of several leading ethical theories in contemporary moral philosophy. The ethical theories will serve as benchmarks to facilitate critical thinking on issues that raise difficult moral questions. Students will be challenged to articulate reasoned answers to these moral questions. Also, exercises in moral reasoning will be carried out through a comprehensive study of academic integrity and research ethics. The course will conclude

with a discussion of the importance of ethics in thinking about efforts to sustain the natural environment.

Research

Student teachers acquire an understanding of the purposes, processes and outcomes of academic and educational research; with a strong focus on methods of designing, collecting, analysing and interpreting data.

The purpose of academic research is to deepen student teachers' understanding of their content specialisation topics and enrich their learning experiences.

Educational Research is a core 3 AU course in NIE's Enhanced BA/BSc (Education) Programme that was launched in AY15/16. This introductory research course is offered to student teachers in their third year. It 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. Upon successful completion of URECA, undergraduates will receive Academic Credits to fulfil unrestricted electives course, which is part of the NTU General Education Requirement curriculum. In addition, undergraduates with high

achievement will be awarded the URECA Undergraduate Research Excellence URECA Awards with coveted title of NTU President Research Scholar.

General Electives

Teaching scholars will also complete another 12 AUs of elective courses to supplement the core curriculum and general education in our BA (Ed) and BSC (Ed) programmes that are rigorous and internationally recognized.

Total AUs of General Electives for Teaching Scholars

<table>
<tr><th>Programme</th><th>Primary</th><th>Secondary</th><th>Primary (TSP)</th><th>Secondary (TSP)</th></tr>
<tr><td>Tamil Language</td><td rowspan="3">3 AUs</td><td>3 AUs</td><td rowspan="3">3AUs + 12 AUs*</td><td>3AUs + 12 AUs*</td></tr>
<tr><td>Chinese Language</td><td rowspan="3">6 AUs</td><td rowspan="3">6 AUs + 12 AUs*</td></tr>
<tr><td>Malay Language</td></tr>
<tr><td>Physical Education and Sports Science</td><td rowspan="2">6 AUs</td><td rowspan="2">6 AUs + 12 AUs*</td></tr>
<tr><td>Other AS</td></tr>
</table>

* The 12 AUs of elective courses consist of another 9 AUs of General Elective and 3 AUs of compulsory General Electives (AED28S).

GEM Explorer

The GEM Explorer Programme 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. However, student teachers 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 all undergraduates. Those interested should speak to Associate Dean, Practicum & Partnerships and/or Assistant Dean, Degree Programmes at the Office of Teacher Education.

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

Student teachers interested to apply for the GEM Explorer Programme are expected to submit an online application form via NTU Terra Dotta. If you have any queries, email to stdexchange@nie.edu.sg.

International Practicum

The 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.

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

NIE student teachers attached to schools for Teaching Assistantship will not need to pay fees to foreign universities if these foreign universities have current memoranda of agreement (MOA) with NIE. This means that the NIE student teacher is only required to pay for travel, accommodation, insurance, books and living expenses while on overseas Teaching Assistantship.

NIE student teachers interested to apply for the International Practicum Programme are expected to submit an online application form via NTU Terra Dotta. 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. 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 all NIE Year 3 student teachers. Those interested should speak to Associate Dean, Practicum & Partnerships and/or Assistant Dean, Degree Programmes at the Office of Teacher Education.

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

NIE student teachers interested to apply for the NIE-administered Semester Exchange are expected to submit an online application form via NTU Terra Dotta. If you have any queries, email to stdexchange@nie.edu.sg.

Academic Structure of Programmes

Structure of Degree Programmes

Core Courses, Prescribed Electives & General Electives

There are three categories of subject courses in the degree programmes:

Core Courses : Compulsory courses that must be passed to fulfil degree programme requirements (inclusive of the ONE Essential Course);

Prescribed Electives : Electives that form a certain field of specialisation in a particular subject. They add to the depth and/or breadth of knowledge and skills to be acquired by student teachers;

General Electives : Electives which may be chosen from a broad list of courses offered by the University, whether within or outside the Institute, on the approval of the Dean meant only for those in the Secondary track.

Each course is assigned academic units. Note that in addition to the core courses and the required number of prescribed electives, student teachers in the Secondary track and Primary (Two Curriculum Studies) Track must also offer 6 AUs in General Electives. Primary (Three Curriculum Studies), BA Chinese Primary Track, BA Malay Primary Track and BA Tamil Primary/Secondary track must offer 3 AUs in General Electives which can be chosen from subjects offered.

BA (Ed) / BSc (Ed) Programmes

STRUCTURE OF PROGRAMMES

The BA (Education) / BSc (Education) programmes comprise eight areas of study.

a) Education Studies

Student teachers will learn the key concepts and principles of education that are necessary for effective teaching and reflective practice in schools. They will also have the opportunity for in-depth study of some significant aspects of education.

b) Curriculum Studies

BA (Ed)/BSc (Ed) student teachers will specialise in the methodology for teaching at either the primary or secondary school level. These are designed to give student teachers the pedagogical skills in teaching specific subjects in Singapore schools. The choice of Curriculum Studies (CS) subjects depends on the track and strand to which the student teacher belongs.

Primary Track

General (Three CS Track) *(Only applicable to intakes before July 2016)*	Any three CS subjects from o Art o English o Mathematics o Music o Science o Social Studies
General (Two CS Track)	Any two CS subjects from o Art o English o Mathematics o Music o Science o Social Studies
Chinese specialisation	CS1: Chinese Language CS2: Character and Citizenship Education (Chinese)
Malay specialisation	CS1: Malay Language CS2: Character and Citizenship Education (Malay)
Tamil specialisation*	CS1: Tamil Language CS2: Character and Citizenship Education and Tamil Literature
Physical Education and Sports Science (PESS) specialisation (Three CS Track) *(Only applicable to intakes before July 2016)*	CS1: PE CS2: English Language or Mathematics CS3: any one below (if not selected for CS2) o Art o English o Mathematics o Music o Science o Social Studies
Physical Education and Sports Science (PESS) specialisation (Two CS Track)	CS1: PE CS2: Any one below o English o Math o Music o Science o Social Studies

* Student teachers taking Tamil Language & Literature will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

Secondary Track

General	Student teachers will offer two CS subjects which are aligned with the choice of Academic Subjects (AS) chosen. CS1 will align with AS1 and CS2 will be aligned with AS2. For a full list of AS subjects, see section on Academic Subjects.
Chinese specialisation	CS1: Chinese Language CS2: Chinese Literature
Malay specialisation	CS1: Malay Language CS2: Malay Literature
Tamil specialisation*	CS1: Tamil Language CS2: Character and Citizenship Education and Tamil Literature
Physical Education and Sports Science (PESS) specialisation	CS1: PE CS2: aligned with AS2

* Student teachers taking Tamil Language & Literature will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

c) Subject Knowledge

This group of courses helps to reinforce subject content mastery for primary school teaching. Student teachers in the primary track must offer Subject Knowledge subjects aligned with their choice of CS subjects.

For PESS specialisation in the primary track, student teachers will offer SK subjects aligned with the CS2 and CS3 subjects.

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

d) Essential Course

There will only be one essential course that introduces student teachers to the implications of living in a diverse

society entitled 'Multicultural Studies: Appreciating & Valuing Differences'.

e) Practicum

The 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.

The Practicum is developmental in nature. It comprises four school attachment periods of varying durations:

(iv) School Experience (SE): Student teachers will spend one week in a primary school and another in a secondary school to observe lessons at both primary and secondary levels. A set of weekly observation and reflection tasks will be given to foster theory-practice links.

(v) Teaching Assistantship (TA): This is five weeks long and is assigned in accordance with the student teachers' primary/secondary specialisation track. Besides lesson observations, they will help plan lessons, prepare resources, manage pupils and do some assisted teaching. A set of weekly TA tasks will be given to foster theory-practice links.

(vi) Teaching Practice 1 (TP1): In this 5-week stint, the student teachers begin to learn how to teach independently. After the first 2 weeks of lesson observations, they start to plan their own lessons to teach, prepare the relevant resources and manage pupils independently, in consultation with their school cooperating teachers and university lecturers.

(vii) Teaching Practice 2 (TP2): In this 10-week stint, the student teachers continue to work towards independent teaching. They will be given a more holistic experience, which may include exploring other aspects of a teacher's life such as the management of co-curricular activities.

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 and Curriculum Studies courses to integrate theory with practice.

f) Language Enhancement and Academic Discourse Skills (LEADS)

The courses in this component equip student teachers with the basic language and voice skills that they require for teaching, as well as for successfully engaging in academic writing of assignments and theses. BA/BSc (Ed) student teachers will have to offer two compulsory courses, Communication Skills for Teachers (CST) and Academic Discourse Skills (ADS).

g) Academic Subjects

This area of study covers knowledge of the content and fundamental concepts and principles of either one or two subjects depending on the programme enrolled for.

In the case of a BA (Ed) (Primary) student teacher, the choice of the first Academic Subject must be an Arts subject while in the case of a BSc (Ed) (Primary) student teacher, the Academic Subject must be a Science Subject.

All BA (Ed) (Secondary) student teachers must read an arts subject as Academic Subject 1 but can choose an Arts or Science subject as Academic Subject 2. Similarly, all BSc (Ed) (Secondary) student teachers must choose a Science subject as Academic Subject 1 but can choose an Arts or Science subject as Academic Subject 2. The lists of subjects for the different programmes are shown below. However, due to the nature of workload for some subjects, the subject combinations allowed will have to be necessarily limited and may vary for different intakes.

BA (Ed) (Primary/Secondary): Academic Subjects

ACADEMIC SUBJECT	BA (Ed) (Primary)	BA (Ed) (Secondary)	
	AS	AS1	AS2
Art	√	√	√
Biology	X	X	√
Chemistry	X	X	√
Chinese Language*	√	√	X
Chinese Literature*	X	X	√
Drama	√	√	√
English Language	√	√	√
English Literature	√	√	√
Geography	√	√	√
History	√	√	√
Malay Language**	√	√	X
Malay Literature**	X	X	√
Mathematics	X	X	√
Music	√	√	√
Physics	X	X	√
Social Studies	X	X	√
Tamil Language***	√	√	X
Tamil Literature***	X	X	√

* Chinese Language and Chinese Literature must be offered as AS1 and AS2 together and not with another Academic Subject in both the primary and secondary specialisations.

** Malay Language and Malay Literature must be offered as AS1 and AS2 together and not with another Academic Subject in the primary specialisation. In the secondary specialisation, Malay Language must be offered as AS1 and Malay Literature as AS2. However, student teachers can opt to offer Malay Language as AS1 and any other Arts subject as AS2 but they will then not be considered as specialising in Malay Language.

*** Tamil Language and Tamil Literature must be offered as AS1 and AS2 together and not with another Academic Subject in both the primary and secondary specialisations. Student teachers taking Tamil Language & Literature will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

BSc (Ed) (Primary/Secondary): Academic Subjects

ACADEMIC SUBJECT	BSc (Ed) (Primary)	BSc (Ed) (Secondary)	
	AS	AS1	AS2
Art	X	X	√
Biology	√	√	√
Chemistry	√	√	√
Drama	X	X	X
English Language	X	X	√
English Literature	X	X	√
Food & Consumer Sciences	X	X	X
Geography	X	X	√
History	X	X	√
Mathematics	√	√	√
Music	X	X	√
PE and Sports Science	√	√	X
Physics	√	√	√
Social Studies	X	X	√

h) General Electives

BA(Ed) / BSc(Ed) student teachers in the Primary (Two CS) and Secondary track have to take 6 AUs of General Electives, while student teachers in the Primary (Three CS) track, BA Chinese Primary track, BA Malay Primary track and BA Tamil Primary/Secondary track will have to take 3 AUs.

Curriculum Structure for BA (Ed) (Primary) (General) (Three Curriculum Studies) Programme *(Only applicable to intakes before July 2016)*

Student teachers enrolled in the BA (Ed) (Primary) (General) (Three Curriculum Studies) programme will follow the curriculum structure shown in Table 1 below:

Table 1: Curriculum Structure for BA (Ed) (Primary) (General) (Three Curriculum Studies) Programme *(Only applicable to intakes before July 2016)*

Year 1

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED00C	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10B	Group Endeavours in Service Learning	1
	AED10E#	The Social Context of Education in Singapore	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
ACADEMIC SUBJECT (Select 1 subject area) *			
AS1		Arts Subject *	12
CURRICULUM STUDIES (Select any 3 Curriculum Studies areas)			
Music (SK courses are integrated with CS courses: 15 AUs)	ACI10B	Musicianship for the Classroom 1	3
SUBJECT KNOWLEDGE (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

Applicable for student teachers before July 2020 intake.

* AS1 : Select 1 from the following list of Arts Subjects:
Art, Drama, English Language, Geography, History, Music.

Cont'd

Category/ Subject	Course Code	Title	No. of AUs
SUBJECT KNOWLEDGE (Aligned with Curriculum Studies Subjects)			
Science (For student teachers offering AS Biology & student teachers offering other AS)	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
LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS			
	ALS10A	Academic Discourse Skills	3
	ALK10B	Communication Skills for Teachers	2
PRACTICUM			
	APR10A	School Experience	0

Note: In addition to the core courses and the required number of prescribed electives, student teachers are required to undertake a compulsory online Ethics and Moral Reasoning course – HY0002.

Note: In addition to the core courses and the required number of prescribed electives, student teachers 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
EDUCATION STUDIES			
	AED20A	Teaching and Managing Learners at the Primary Level	2
	AED20C	Technologies for Meaningful Learning	2
	AED20D	Assessing Learning and Performance	1
Select 1 digital literacy prescribed elective +	AED23 L/M/K	Digital and Media Literacy / Computer Literacy through Coding and Applications / Digital Literacy for Net Generation	3
ACADEMIC SUBJECT (Select 1 subject area) *			
AS 1		Arts Subject *	18
CURRICULUM STUDIES (Select any 3 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	ACI20B	Musicianship for the Classroom II	3
Science	ACS20A	Curriculum and Practices for Primary Science	3
Social Studies	ACL20A	Teaching Social Studies in the Primary Classroom	3
SUBJECT KNOWLEDGE (Aligned with Curriculum Studies Subjects)			
English Language	ASE20A	Exploring Language in Texts	2
ESSENTIAL COURSE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
PRACTICUM			
	APR20A	Teaching Assistantship	3

* AS1 : Select 1 from the following list of Arts Subjects:
Art, Drama, English Language, Geography, History, Music.

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

Year 3

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED30D	Supporting Diversity at the Primary Level	1
	AED30E~	Pedagogical Practices	1
	AED40A (Exclude TSP)	Educational Research#^	3
	AED430 (For TSP)	Research Project#^	3
ACADEMIC SUBJECT *			
AS 1		Arts Subject *	6
CURRICULUM STUDIES (Further studies in selected Curriculum Studies subjects in Year 2)			
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 I	3
Music	ACI30B	Theory and Practice of Music Education I	3
Science	ACS30A	Pedagogies for Primary Science	3
Social Studies	ACL30A	Inquiry in Primary Social Studies	3
GENERAL ELECTIVES @			
			3
PRACTICUM			
	APR30A	Teaching Practice 1	5

* AS1 : Select 1 from the following list of Arts Subjects:
Art, Drama, English Language, Geography, History, Music.

@ Student teachers are required to select 1 General Elective worth 3 AUs.

Student teachers are required to read AED40A, except those in the NTU-NIE Teaching Scholars Programme (TSP) who will read AED430 instead.

^ AED40A and AED430 span two semesters.

~ This course will commence in Jan 2023.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
ACADEMIC SUBJECT *			
AS 1		Arts Subject *	6
CURRICULUM STUDIES (Further studies in selected Curriculum Studies subjects in Year 2)			
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
Mathematics	ACM40A	The Teaching and Learning of Primary Mathematics III	3
Music	ACI40D	Musicianship for the Classroom III	3
	ACI40E+	Theory and Practice of Music Education III	3
	ACI40G	Theory and Practice of Music Education II	3
Science	ACS40A	Innovations in Design and Practices for Primary Science	3
Social Studies	ACL40A	Managing Diversity in the Social Studies Classroom	3
SUBJECT KNOWLEDGE (Further studies in selected Subject Knowledge areas aligned to 3 selected Curriculum Studies subjects)			
English Language	ASE40B	Current Trends in English Language Education in the Primary School	2
Mathematics (For non-AS Math student teachers)	ASM40A	Further Mathematics Topics	2
Science (For student teachers offering AS Physics & student teachers offering other AS)	ASK40B	Topics in Biological Science for Primary Science Teaching	3
PRACTICUM			
	APR40A	Teaching Practice 2	10

* AS1 : Select 1 from the following list of Arts Subjects:
Art, Drama, English Language, 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 BA (General) (Primary) (3CS)

Group of Courses	**No. of AUs**
Education Studies (Inclusive of Digital Literacy, Professional Practice & Inquiry and Education Research (Regulars and Upgraders) / Research Project (TSPs))	19
Curriculum Studies • CS1 • CS2 • CS3	 29 9 9
Subject Knowledge • SK1 • SK2 • SK3	 0 6 6
Essential Course (Inclusive of Ethics and Moral Reasoning course)	4
Practicum	18
Language Enhancement and Academic Discourse Skills (LEADS)	5
Academic Subjects	32
General Electives • Regulars and Upgraders • TSP	 3 15

Curriculum Structure for BA (Ed) (Primary) (General) (Two Curriculum Studies) Programme

Student teachers enrolled in the BA (Ed) (Primary) (General) (Two Curriculum Studies) programme will follow the curriculum structure shown in Table 2 below:

Table 2: Curriculum Structure for BA (Ed) (Primary) (General) (Two Curriculum Studies) Programme

Year 1

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED00C	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10B	Group Endeavours in Service Learning	1
	AED10E#	The Social Context of Education in Singapore	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
ACADEMIC SUBJECT (Select 1 subject area) *			
AS1		Arts Subject *	12
CURRICULUM STUDIES (Select any 2 Curriculum Studies areas)			
Music	ACI10B	Musicianship for the Classroom I	3
SUBJECT KNOWLEDGE (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
Social Studies	ASL10A	Disciplinary Foundations in Primary Social Studies: Geography	3
	ASL10B	Disciplinary Foundations in Primary Social Studies: History	3
LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS			
	ALS10A	Academic Discourse Skills	3
	ALK10B	Communication Skills for Teachers	2
PRACTICUM			
	APR10A	School Experience	0

* AS1 : Select 1 from the following list of Arts Subjects:
Art, Drama, English Language, English Literature, Geography, History, Music.

\# Applicable for student teachers before July 2020 intake.

Year 2

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED20A	Teaching and Managing Learners at the Primary Level	2
	AED20C	Technologies for Meaningful Learning	2
	AED20D	Assessing Learning and Performance	1
Select 1 digital literacy prescribed elective +	AED23 L/M/K	Digital and Media Literacy / Computer Literacy through Coding and Applications / Digital Literacy for Net Generation	3
ACADEMIC SUBJECT (Select 1 subject area) *			
AS 1		Arts Subject *	18
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	ACI20B	Musicianship for the Classroom II	3
Science	ACS20A	Curriculum and Practices for Primary Science	3
Social Studies	ACL20A	Teaching Social Studies in the Primary Classroom	3
SUBJECT KNOWLEDGE (Aligned with Curriculum Studies Subjects)			
English Language	ASE20A	Exploring Language in Texts	2
ESSENTIAL COURSE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
PRACTICUM			
	APR20A	Teaching Assistantship	3

* AS1 : Select 1 from the following list of Arts Subjects:
Art, Drama, English Language, English Literature, Geography, History, Music.

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

Note: In addition to the core courses and the required number of prescribed electives, student teachers are required to undertake a compulsory online Ethics and Moral Reasoning course – HY0002.

Note: In addition to the core courses and the required number of prescribed electives, student teachers 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
EDUCATION STUDIES			
	AED30D	Supporting Diversity at the Primary Level	1
	AED30E~	Pedagogical Practices	1
	AED40A (Exclude TSP)	Educational Research #^	3
	AED430 (For TSP)	Research Project #^	3
ACADEMIC SUBJECT *			
AS 1		Arts Subject *	9
CURRICULUM STUDIES (Further studies in selected Curriculum Studies subjects in Year 2)			
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 I	3
Music	ACI30B	Theory and Practice of Music Education I	3
Science	ACS30A	Pedagogies for Primary Science	3
Social Studies	ACL30A	Inquiry in Primary Social Studies	3
SUBJECT KNOWLEDGE (Aligned with Curriculum Studies Subjects)			
Art	ASA30B	Pedagogical Practices in Art Classroom	3
GENERAL ELECTIVES @			
			6
PRACTICUM			
	APR30A	Teaching Practice 1	5

* AS1 : Select 1 from the following list of Arts Subjects:
Art, Drama, English Language, English Literature, Geography, History, Music.

@ Student teachers are required to select 2 General Electives worth 6 AUs.

Student teachers are required to read AED40A, except those in the NTU-NIE Teaching Scholars Programme (TSP) who will read AED430 instead.

^ AED40A and AED430 span two semesters.

~ This course will commence in Jan 2023.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
ACADEMIC SUBJECT *			
AS1		Arts Subject *	15
CURRICULUM STUDIES (Further studies in selected Curriculum Studies subjects in Year 2)			
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	ACI40D	Musicianship for the Classroom III	3
	ACI40E+	Theory and Practice of Music III	3
	ACI40G	Theory and Practice of Music Education II	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
SUBJECT KNOWLEDGE (Further studies in selected Subject Knowledge areas aligned to 2 selected Curriculum Studies subjects			
English Language	ASE40B	Current Trends in English Language Education in the Primary School	2
Mathematics (For non-AS Math student teachers)	ASM40A	Further Mathematics Topics	2
Science (For student teachers offering AS Physics & student teachers offering other AS)	ASK40B	Topics in Biological Science for Primary Science Teaching	3
PRACTICUM			
	APR40A	Teaching Practice 2	10

* AS1 : Select 1 from the following list of Arts Subjects:
Art, Drama, English Language, 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 BA (General) (Primary) (2CS)

Group of Courses	**No. of AUs**
Education Studies (Inclusive of Digital Literacy, Professional Practice & Inquiry and Education Research (Regulars and Upgraders) / Research Project (TSPs))	19
Curriculum Studies • CS1 • CS2 Music – Subject Knowledge courses are integrated with CS courses • CS1 • CS2	 12 9 18 15
Subject Knowledge • SK1 • SK2	 6 6
Essential Course (Inclusive of Ethics and Moral Reasoning course)	4
Practicum	18
Language Enhancement and Academic Discourse Skills (LEADS)	5
Academic Subjects	54
General Electives • Regulars and Upgraders • TSP	 6 18

Curriculum Structure for BA (Ed) (Primary) (Chinese/Malay/Tamil Language Specialisation) Programme

Student teachers enrolled in the BA (Ed) (Primary) (Chinese/Malay/Tamil Language Specialisation) programme will follow the curriculum structure shown in Table 3 below:

Table 3: Curriculum Structure for BA (Ed) (Primary) (Chinese/Malay/Tamil Language Specialisation) Programme

Year 1

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED00C	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10B	Group Endeavours in Service Learning	1
	AED10E[#]	The Social Context of Education in Singapore	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
ACADEMIC SUBJECT 1 (Chinese Language, Malay Language or Tamil Language)			
AS 1		Chinese Language	18
AS 1		Malay Language	15
AS 1		Tamil Language	15
ACADEMIC SUBJECT 2 (Chinese Literature, Malay Literature or Tamil Literature)			
AS 2		Chinese Literature	6
AS 2		Malay Literature	12
AS 2		Tamil Literature	6
CURRICULUM STUDIES 1 (Tamil Language)			
CS 1	ACT10A	Assessment in Tamil Language Teaching	3
CURRICULUM STUDIES 2 (Character and Citizenship Education and Tamil Literature)			
CS 2	ACK10A	Introduction to CCE: Content, Curriculum, Pedagogy and Assessment	3
LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS			
	ALS10A	Academic Discourse Skills	3
	ALK10B	Communication Skills for Teachers	2
PRACTICUM			
	APR10A	School Experience	0

[#] Applicable for student teachers before July 2020 intake.

Note: In addition to the core courses and the required number of prescribed electives, student teachers are required to undertake a compulsory online Ethics and Moral Reasoning Course – HY0002.

Year 2

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED20A	Teaching and Managing Learners at the Primary Level	2
	AED20C	Technologies for Meaningful Learning	2
	AED20D	Assessing Learning and Performance	1
Select 1 digital literacy prescribed elective [+]	AED23 L/M/K	Digital and Media Literacy / Computer Literacy through Coding and Applications / Digital Literacy for Net Generation	3
ACADEMIC SUBJECT 1 (Chinese Language, Malay Language or Tamil Language)			
AS 1		Chinese Language	9
AS 1		Malay Language	18
AS 1		Tamil Language	15
ACADEMIC SUBJECT 2 (Chinese or Tamil Literature)			
AS 2		Chinese Literature	9
AS 2		Tamil Literature	6
CURRICULUM STUDIES 1 (Chinese Language, Malay Language or Tamil Language)			
CS 1	ACC20A	Teaching of Chinese: Form and Meaning	3
	ACC20B	Curriculum Design and Development of Instructional Materials	3
CS 1	ACD20A	Foundations to Malay Language Teaching at the Primary Level	3
	ACD20B	Teaching Oral Communication in Malay at the Primary Level	2
CS 1	ACT20A	Language Education and Pedagogy in teaching of Tamil Language	3
	ACT20B	Teaching Reading and Writing in Tamil Language	3
CURRICULUM STUDIES 2 (Chinese or Malay Character and Citizenship Education)			
CS 2 (Chinese CCE)	ACZ20A	Introduction to CCE: Content, Curriculum, Pedagogy & Assessment	3
CS 2 (Malay CCE)	ACV20A	Teaching of Character and Citizenship Education (Malay) (Lower Primary)	3
	ACV20B	Teaching of Character and Citizenship Education (Malay) (Upper Primary)	3
ESSENTIAL COURSE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
PRACTICUM			
	APR20A	Teaching Assistantship	3

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

Year 3

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED30D	Supporting Diversity at the Primary Level	1
	AED30E~	Pedagogical Practices	1
	AED40A	Educational Research #^	3
	AED430	Research Project #^	3
ACADEMIC SUBJECT 1 (Chinese Language or Malay Language)			
AS 1		Chinese Language	9
AS 1		Malay Language	9
ACADEMIC SUBJECT 2 (Tamil Literature)			
AS 2		Tamil Literature	9
CURRICULUM STUDIES 1 (Chinese Language or Malay Language)			
CS 1	ACC30A	Teaching of Listening & Speaking	2
	ACC30B	Teaching of Reading & Writing	2
	ACC30C	Planning and Developing Language Lessons	2
	ACD30A	Teaching Reading and Writing in Malay (Lower Primary)	3
CURRICULUM STUDIES 2 (Chinese Character and Citizenship Education)			
CS 2 (Chinese CCE)	ACZ30A	Children's Literature & the Teaching of CCE	3
GENERAL ELECTIVES @			
			3
PRACTICUM			
	APR30A	Teaching Practice 1	5

@ Student teachers are required to select 1 General Elective worth 3 AUs.

Student teachers are required to read AED40A, except those in the NTU-NIE Teaching Scholars (TSP) Programme who will read AED430 instead.

^ AED40A and AED430 span two semesters.

~ This course will commence in Jan 2023.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
ACADEMIC SUBJECT 1 (Chinese Language, Malay Language or Tamil Language)			
AS 1		Chinese Language	9
AS 1		Malay Language	12
AS 1		Tamil Language	12
ACADEMIC SUBJECT 2 (Chinese Literature or Tamil Literature)			
AS 2		Chinese Literature	3
AS 2		Tamil Literature	3
CURRICULUM STUDIES 1 (Chinese Language, Malay Language or Tamil Language)			
CS 1	ACC40A	Student-centered Language Learning Strategies & Activities	3
	ACC40B	Language Testing	3
CS 1	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
CS 1	ACT40B	Use of Information Communication Technology in Teaching Tamil Language	3
	ACT40C	Teaching of Tamil Poetry	3
CURRICULUM STUDIES 2 (Chinese or Malay Character and Citizenship Education)			
CS 2 (Chinese CCE)	ACZ40A	Teaching of CCE: From Classroom to School to Community	3
CS 2 (Malay CCE)	ACV40A	Assessment in Character and Citizenship Education (Malay)	2
CURRICULUM STUDIES 2 (Character and Citizenship Education and Tamil Literature)			
CS 2 (Tamil CCE)	ACK40A	Character and Citizenship Education and Moral Literature	3
	ACK40B	Character and Citizenship Education and Children Literature	3
PRACTICUM			
	APR40A	Teaching Practice 2	10

AUs overview for BA (Chinese / Malay / Tamil Specialisation) (Primary)

Group of Courses	No. of AUs
Education Studies (Inclusive of Digital Literacy, Professional Practice & Inquiry and Education Research (Regulars and Upgraders) / Research Project (TSPs))	19

Curriculum Studies
• Chinese Language
  ○ CS1
  ○ CS2
• Malay Language
  ○ CS1
  ○ CS2
• Tamil Language
  ○ CS1
  ○ CS2
	
	18
	9
	
	16
	8
	
	15
	9

Essential Course (Inclusive of Ethics and Moral Reasoning course)	4
Practicum	18
Language Enhancement and Academic Discourse Skills (LEADS)	5

Academic Subjects
• Chinese Language
  ○ AS1
  ○ AS2
• Malay Language
  ○ AS1
  ○ AS2
• Tamil Language*
  ○ AS1
  ○ AS2
	
	45
	18
	
	54
	12
	
	39
	21

General Electives • Regulars and Upgraders • TSP	 3 15

* Student teachers taking Tamil Language & Literature will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

Curriculum Structure for BA (Ed) (Secondary) (General) Programme

Student teachers enrolled in the BA (Ed) (Secondary) (General) programme will follow the curriculum structure shown in Table 4 below:

Table 4: Curriculum Structure for BA (Ed) (Secondary) (General) Programme

Year 1

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED02C	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10B	Group Endeavours in Service Learning	1
	AED10E[@]	The Social Context of Education in Singapore	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
ACADEMIC SUBJECTS			
AS1		Arts Subject *	12
AS2		Arts or Science Subject [#]	12
LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS			
	ALS10A	Academic Discourse Skills	3
	ALK10B	Communication Skills for Teachers	2
PRACTICUM			
	APR10A	School Experience	0

* AS1: Select 1 from the following list of Arts Subjects:
Art, Drama, English Language, English Literature, Geography, History, Malay Language, Music.

[#] AS2: Select 1 from the following list:
Art, Biology, Chemistry, Drama, English Language, English Literature, Geography, History, Mathematics, Music, Physics, Social Studies.

[@] Applicable for student teachers before July 2020 intake.

Note: In addition to the core courses and the required number of prescribed electives, student teachers are required to undertake a compulsory online Ethics and Moral Reasoning course – HY0002.

Year 2

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED22A	Teaching and Managing Learners at the Secondary Level (Part 1)	2
	AED20C	Technologies for Meaningful Learning	2
	AED20D	Assessing Learning and Performance	1
Select 1 digital literacy prescribed elective +	AED23 L/M/K	Digital and Media Literacy / Computer Literacy through Coding and Applications / Digital Literacy for Net Generation	3
ACADEMIC SUBJECTS			
AS1		Arts Subject *	18
CURRICULUM STUDIES (CS1 align with AS1, CS2 align with AS2) ^			
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	ACI22B	Classroom Practices in Music I	3
Physics	ACP22A	Understanding the Physics Curriculum	3
Social Studies	ACL22B	Social Studies Education in the Secondary School Classroom	3
ESSENTIAL COURSE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
GENERAL ELECTIVES @			
			6
PRACTICUM			
	APR20A	Teaching Assistantship	3

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

* AS1: Select 1 from the following list of Arts Subjects:
Art, Drama, English Language, English Literature, Geography, History, Malay Language, Music.

^ For CS Malay, see section under Malay Specialisation (Secondary track).

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

@ Student teachers are required to select 2 General Electives worth 6 AUs.

Year 3

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED32B	Teaching and Managing Learners at Secondary Level (Part 2)	1
	AED30E~	Pedagogical Practices	1
	AED40A (Exclude TSP)	Educational Research #^	3
	AED430 (For TSP)	Research Project #^	3
ACADEMIC SUBJECT *			
AS1		Arts Subject *	9
CURRICULUM STUDIES (CS1 align with AS1, CS2 align with AS2) +			
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	ACI32B	Classroom Practices in Music II	3
Physics	ACP32A	Physics Instruction & Microteaching	3
Social Studies	ACL32B	Inquiry-Based Learning Approach Towards the Teaching of Social Studies	3
GENERAL ELECTIVES @			
			6
PRACTICUM			
	APR30A	Teaching Practice 1	5

* AS1: Select 1 from the following list of Arts Subjects:
Art, Drama, English Language, English Literature, Geography, History, Malay Language, Music.

\+ For CS: Malay, see section under Malay Specialisation (Secondary track).

@ Student teachers are required to select 2 General Electives worth 6 AUs.

Cont'd

Student teachers are required to read AED40A, except those in the NTU-NIE Teaching Scholars (TSP) Programme who will read AED430.

^ AED40A and AED430 span two semesters.

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

~ This course will commence in Jan 2023.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
ACADEMIC SUBJECT *			
AS1		Arts Subject *	15
CURRICULUM STUDIES (CS1 align with AS1, CS2 align with AS2) #			
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	ACI42C+	Classroom Practices in Music III	3
	ACI42D	Teaching Music as an Examination Subject at O- and N(T)-level	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
PRACTICUM			
	APR40A	Teaching Practice 2	10

Cont'd

* AS1: Select 1 from the following list of Arts Subjects:
Art, Drama, English Language, English Literature, Geography, History, Malay Language, Music.

\# For CS: Malay, see section under Malay 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 BA (General) (Secondary)

Group of Courses	**No. of AUs**
Education Studies (Inclusive of Digital Literacy, Professional Practice & Inquiry and Education Research (Regulars and Upgraders) / Research Project (TSPs))	19
Curriculum Studies • CS1 • CS2	 12 9
Essential Course (Inclusive of Ethics and Moral Reasoning course)	4
Practicum	18
Language Enhancement and Academic Discourse Skills (LEADS)	5
Academic Subjects • AS1 • AS2	 54 12
General Electives • Regulars and Upgraders • TSP	 6 18

Curriculum Structure for BA (Ed) (Secondary) (Chinese/Malay/Tamil Language Specialisation) Programme

Student teachers enrolled in the BA (Ed) (Secondary) (Chinese/Malay Language Specialisation) programme will follow the curriculum structure shown in Table 5 below:

Table 5: Curriculum Structure for the BA (Ed) (Secondary) (Chinese / Malay / Tamil Language Specialisation) Programme *

Year 1

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED02C	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10B	Group Endeavours in Service Learning	1
	AED10E#	The Social Context of Education in Singapore	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
ACADEMIC SUBJECT 1 (Chinese Language, Malay Language or Tamil Language)*			
AS 1		Chinese Language	18
AS 1		Malay Language	15
AS 1		Tamil Language	15
ACADEMIC SUBJECT 2 (Chinese Literature, Malay Literature or Tamil Literature)			
AS 2		Chinese Literature	6
AS 2		Malay Literature	12
AS 2		Tamil Literature	6
CURRICULUM STUDIES 1 (Tamil Language)			
CS 1	ACT10A	Assessment in Tamil Language Teaching	3
CURRICULUM STUDIES 2 (Character and Citizenship Education and Tamil Literature)			
CS 2	ACK10A	Introduction to CCE: Content, Curriculum, Pedagogy and Assessment	3
LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS			
	ALS10A	Academic Discourse Skills	3
	ALK10B	Communication Skills for Teachers	2
PRACTICUM			
	APR10A	School Experience	0

Cont'd

* In the secondary specialisation for Malay Language, Malay Language must be offered as AS1 and Malay Literature as AS2. However, student teachers can opt to offer Malay Language as AS1 and any other Arts subject as AS2 but they will then not be considered as specialising in Malay Language.

Applicable only for student teachers before July 2020 intake.

Note: In addition to the core courses and the required number of prescribed electives, student teachers are required to undertake a compulsory online Ethics and Moral Reasoning course – HY0002.

Year 2

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED22A	Teaching and Managing Learners at the Primary Level (Part 1)	2
	AED20C	Technologies for Meaningful Learning	2
	AED20D	Assessing Learning and Performance	1
Select 1 digital literacy prescribed elective +	AED23 L/M/K	Digital and Media Literacy / Computer Literacy through Coding and Applications / Digital Literacy for the Net Generation	3
ACADEMIC SUBJECT 1 (Chinese Language, Malay Language or Tamil Language)			
AS 1		Chinese Language	9
AS 1		Malay Language	18
AS 1		Tamil Language	15
ACADEMIC SUBJECT 2 (Chinese Literature or Tamil Literature)			
AS 2		Chinese Literature	9
AS 2		Tamil Literature	6
CURRICULUM STUDIES 1 (Chinese Language, Malay Language or Tamil Language)			
CS 1	ACC22A	Basic Elements of a Lesson	1
CS 1	ACC22B	Teaching of Chinese: Form and Meaning	2
CS 1	ACD22A	Foundations to Malay Language Teaching at the Secondary Level	3
CS 1	ACT20A	Language Education and Pedagogy in teaching of Tamil Language	3
CS 1	ACT20B	Teaching Reading and Writing in Tamil Language	3
CURRICULUM STUDIES 2 (Chinese Literature or Malay Literature)			
CS 2	ACJ22A	Introduction to the Teaching of Chinese Literature & China Studies: Content, Pedagogy, & Assessment	3
CS 2	ACF22A	Teaching of Modern Malay Literature	3
CS 2	ACF22B	Teaching of Traditional Malay Literature	3
ESSENTIAL COURSE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
GENERAL ELECTIVES @			
			6
PRACTICUM			
	APR20A	Teaching Assistantship	3

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

@ Student teachers are required to select 2 General Electives worth 6 AUs.

Year 3

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED32B	Teaching and Managing Learners at Secondary Level (Part 2)	1
	AED30E~	Pedagogical Practices	1
	AED40A (Exclude TSP)	Educational Research #^	3
	AED430 (For TSP)	Research Project #^	3
ACADEMIC SUBJECT 1 (Chinese Language or Malay Language)			
AS 1		Chinese Language	9
AS 1		Malay Language	9
ACADEMIC SUBJECT 2 (Tamil Literature)			
AS 2		Tamil Literature	9
CURRICULUM STUDIES 1 (Chinese Language or Malay Language)			
CS 1	ACC32A	Teaching of Listening & Speaking	2
CS 1	ACC32B	Teaching of Reading & Writing	2
CS 1	ACD32A	Teaching and Assessing Reading in Malay	3
CURRICULUM STUDIES 2 (Chinese Literature)			
CS 2	ACJ32A	Teaching of Prose & Poetry: Pedagogy, Design & Facilitation of Learning Activities	3
GENERAL ELECTIVES @			
GE – For Chinese/Malay student teachers			6
GE – For Tamil student teachers			3
PRACTICUM			
	APR30A	Teaching Practice 1	5

@ Student teachers are required to select 2 General Electives worth 6 AUs.

Student teachers are required to read AED40A, except those in the NTU-NIE Teaching Scholars Programme (TSP) who will read AED430 instead.

^ AED40A and AED430 span two semesters.

~ This course will commence in Jan 2023.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
ACADEMIC SUBJECT 1 (Chinese Language, Malay Language or Tamil Language)			
AS 1		Chinese Language	12
AS 1		Malay Language	12
AS 1		Tamil Language	12
ACADEMIC SUBJECT 2 (Chinese Literature or Tamil Literature)			
AS 2		Chinese Literature	3
AS 2		Tamil Literature	3
CURRICULUM STUDIES 1 (Chinese Language, Malay Language or Tamil Language)			
CS 1	ACC42A	Language Testing	3
CS 1	ACC42B	Planning and Developing Student-centered Language Lessons	2
CS 1	ACD42A	Teaching and Assessing Writing in Malay	3
CS 1	ACD42B	Teaching and Assessing Malay Grammar	3
CS 1	ACT40B	Use of Information Communication Technology in Teaching Tamil Language	3
CS 1	ACT40C	Teaching of Tamil Poetry	3
CURRICULUM STUDIES 2 (Chinese Literature or Malay Literature)			
CS 2	ACJ42A	Teaching of Novels & Drama: Pedagogy, Design & Facilitation of Learning Activities	3
CS 2	ACF42A	Designing Programmes and Assessment in the Teaching of Malay Literature	3
CURRICULUM STUDIES 2 (Character and Citizenship Education and Tamil Literature)			
CS 2	ACK40A	Character and Citizenship Education and Moral Literature	3
CS 2	ACK40B	Character and Citizenship Education and Children Literature	3
PRACTICUM			
	APR40A	Teaching Practice 2	10

AUs overview for BA (Chinese / Malay / Tamil Language Specialisation) (Secondary)

Group of Courses	No. of AUs
Education Studies (Inclusive of Digital Literacy, Professional Practice & Inquiry and Education Research (Regulars and Upgraders) / Research Project (TSPs))	19
Curriculum Studies • Chinese Language o AS1 o AS2 • Malay Language o AS1 o AS2 • Tamil Language* o AS1 o AS2	 12 9 12 9 15 9
Essential Course (Inclusive of Ethics and Moral Reasoning course)	4
Practicum	18
Language Enhancement and Academic Discourse Skills (LEADS)	5
Academic Subjects • Chinese Language o AS1 o AS2 • Malay Language o AS1 o AS2 • Tamil Language* o AS1 o AS2	 48 18 54 12 42 24
General Electives • Chinese and Malay Language o Regulars and Upgraders o TSP • Tamil Language* o Regulars and Upgraders o TSP	 6 18 3 15

* Student teachers taking Tamil Language & Literature will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

Curriculum Structure for BSc (Ed) (Primary) (General) (Three Curriculum Studies) Programme *(Only applicable to intakes before July 2016)*

Student teachers enrolled in the BSc (Ed) (Primary) (General) (Three Curriculum Studies) programme will follow the curriculum structure shown in Table 6 below.

Table 6: Curriculum Structure for BSc (Ed) (Primary) (General) (Three Curriculum Studies) Programme *(Only applicable to intakes before July 2016)*

Year 1

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED00C	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10B	Group Endeavours in Service Learning	1
	AED10E@	The Social Context of Education in Singapore	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
ACADEMIC SUBJECT (Select 1 subject area) *			
AS 1		Science Subject *	12
SUBJECT KNOWLEDGE (Aligned with Curriculum Studies Subjects)			
English Language	ASE10A	Grammar	2
Mathematics	ASM10C	Number Topics	2
	ASM10D	Geometry Topics	2
Science (For student teachers offering AS Biology & student teachers offering other AS)	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
LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS			
	ALS10A	Academic Discourse Skills	3
	ALK10B	Communication Skills for Teachers	2
PRACTICUM			
	APR10A	School Experience	0

Cont'd

@ Applicable only for student teachers before July 2020 intake.

* AS1: Select 1 from the following list of Science Subjects:
Biology, Chemistry, Mathematics, Physics

Note: In addition to the core courses and the required number of prescribed electives, student teachers are required to undertake a compulsory online Ethics and Moral Reasoning course – HY0002.

Note: In addition to the core courses and the required number of prescribed electives, student teachers 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
EDUCATION STUDIES			
	AED20A	Teaching and Managing Learners at the Primary Level	2
	AED20C	Technologies for Meaningful Learning	2
	AED20D	Assessing Learning and Performance	1
Select 1 digital literacy prescribed elective +	AED23 L/M/K	Digital and Media Literacy / Computer Literacy through Coding and Applications / Digital Literacy for Net Generation	3
ACADEMIC SUBJECT (Select 1 subject area) *			
AS1		Science Subject *	18
CURRICULUM STUDIES (Select any 3 Curriculum Studies areas)			
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
SUBJECT KNOWLEDGE (Aligned with Curriculum Studies subjects)			
English Language	ASE20A	Exploring Language in Texts	2
ESSENTIAL COURSE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
PRACTICUM			
	APR20A	Teaching Assistantship	3

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

* AS1: Select 1 from the following list of Science Subjects:
Biology, Chemistry, Mathematics, Physics.

Year 3

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED30D	Supporting Diversity at the Primary Level	1
	AED30E~	Pedagogical Practices	1
	AED40A (Exclude TSP)	Educational Research #^	3
	AED430 (For TSP)	Research Project #^	3
ACADEMIC SUBJECT *			
AS1		Science Subject *	6
CURRICULUM STUDIES (Further studies in selected Curriculum Studies subjects in Year 2)			
English Language	ACE30B	Teaching Reading and Writing in a Multilingual Context (Upper Primary)	3
Mathematics	ACM30A	The Teaching and Learning of Primary Mathematics I	3
Science	ACS30A	Pedagogies for Primary Science	3
Social Studies	ACL30A	Inquiry in Primary Social Studies	3
GENERAL ELECTIVES @			
			3
PRACTICUM			
	APR30A	Teaching Practice 1	5

~ This course will commence in Jan 2023.

Student teachers are required to read AED40A, except those in the NTU-NIE Teaching Scholars Programme (TSP) who will read AED430 instead.

^ AED40A and AED430 span two semesters.

* AS1: Select 1 from the following list of Science Subjects:
Biology, Chemistry, Mathematics, Physics.

@ Student teachers are required to select 1 General Elective worth 3 AUs.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
ACADEMIC SUBJECT *			
AS1		Science Subject *	6
CURRICULUM STUDIES (Further studies in selected Curriculum Studies subjects in Year 2)			
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
SUBJECT KNOWLEDGE (Further studies in selected Subject Knowledge areas aligned to 3 selected Curriculum Studies subjects)			
English Language	ASE40B	Current Trends in English Language Education in the Primary School	2
Mathematics (For non-AS Math student teachers)	ASM40A	Further Mathematics Topics	2
Science (For student teachers offering AS Physics & student teachers offering other AS)	ASK40B	Topics in Biological Science for Primary Science Teaching	3
PRACTICUM			
	APR40A	Teaching Practice 2	10

* AS1: Select 1 from the following list of Science Subjects:
Biology, Chemistry, Mathematics, Physics.

AUs overview for BSc (General) (Primary) (3CS)

Group of Courses	**No. of AUs**
Education Studies (Inclusive of Digital Literacy, Professional Practice & Inquiry and Education Research (Regulars and Upgraders) / Research Project (TSPs))	19
Curriculum Studies • CS1 • CS2 • CS3	 29 9 9
Subject Knowledge • SK1 • SK2 • SK3	 0 6 6
Essential Course (Inclusive of Ethics and Moral Reasoning course)	4
Practicum	18
Language Enhancement and Academic Discourse Skills (LEADS)	5
Academic Subjects	32
General Electives • Regulars and Upgraders • TSP	 3 15

Curriculum Structure for BSc (Ed) (Primary) (General) (Two Curriculum) Programme

Student teachers enrolled in the BSc (Ed) (Primary) (General) (Two Curriculum Studies) programme will follow the curriculum structure shown in Table 7 below:

Table 7: Curriculum Structure for BSc (Ed) (Primary) (General) (Two Curriculum Studies) Programme

Year 1

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED00C	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10B	Group Endeavours in Service Learning	1
	AED10E@	The Social Context of Education in Singapore	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
ACADEMIC SUBJECT (Select 1 subject area) *			
AS1		Science Subject *	12
SUBJECT KNOWLEDGE (Aligned with Curriculum Studies Subjects)			
English Language	ASE10A	Grammar	2
Mathematics	ASM10C	Number Topics	2
	ASM10D	Geometry Topics	2
Science (For student teachers offering AS Biology & student teachers offering other AS)	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
LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS			
	ALS10A	Academic Discourse Skills	3
	ALK10B	Communication Skills for Teachers	2
PRACTICUM			
	APR10A	School Experience	0

Cont'd

@ Applicable only for student teachers before July 2020 intake.

* AS1: Select 1 from the following list of Science Subjects:
Biology, Chemistry, Mathematics, Physics.

Note: In addition to the core courses and the required number of prescribed electives, student teachers are required to undertake a compulsory online Ethics and Moral Reasoning course – HY0002.

Note: In addition to the core courses and the required number of prescribed electives, student teachers 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
EDUCATION STUDIES			
	AED20A	Teaching and Managing Learners at the Primary Level	2
	AED20C	Technologies for Meaningful Learning	2
	AED20D	Assessing Learning and Performance	1
Select 1 digital literacy prescribed elective +	AED23 L/M/K	Digital and Media Literacy / Computer Literacy through Coding and Applications / Digital Literacy for Net Generation	3
ACADEMIC SUBJECT (Select 1 subject area) *			
AS 1		Science Subject *	18
CURRICULUM STUDIES (Select any 2 Curriculum Studies areas)			
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
SUBJECT KNOWLEDGE (Aligned with Curriculum Studies Subjects)			
English Language	ASE20A	Exploring Language in Texts	2
ESSENTIAL COURSE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
GENERAL ELECTIVES @			
			6
PRACTICUM			
	APR20A	Teaching Assistantship	3

* AS1: Select 1 from the following list of Science Subjects:
Biology, Chemistry, Mathematics, Physics.

@ Student teachers are required to select a total of 2 General Electives worth 6 AUs.

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

Year 3

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED30D	Supporting Diversity at the Primary Level	1
	AED30E~	Pedagogical Practices	1
	AED40A (Exclude TSP)	Educational Research #^	3
	AED430 (For TSP)	Research Project #^	3
ACADEMIC SUBJECT *			
AS 1		Science Subject *	6
CURRICULUM STUDIES (Further studies in selected Curriculum Studies subjects in Year 2)			
English Language	ACE30B	Teaching Reading and Writing in a Multilingual Context (Upper Primary)	3
Mathematics	ACM30A	The Teaching and Learning of Primary Mathematics I	3
Science	ACS30A	Pedagogies for Primary Science	3
Social Studies	ACL30A	Inquiry in Primary Social Studies	3
GENERAL ELECTIVES @			
			6
PRACTICUM			
	APR30A	Teaching Practice 1	5

~ This course will commence in Jan 2023.

Student teachers are required to read AED40A, except those in the NTU-NIE Teaching Scholars Programme (TSP) who will read AED430 instead.

^ AED40A and AED430 span two semesters.

* AS1: Select 1 from the following list of Science Subjects:
Biology, Chemistry, Mathematics, Physics.

@ Student teachers are required to select 2 General Electives worth 6 AUs.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
ACADEMIC SUBJECT *			
AS 1		Science Subject *	12
CURRICULUM STUDIES (Further studies in selected Curriculum Studies subjects in Year 2)			
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
SUBJECT KNOWLEDGE (Further studies in selected Subject Knowledge areas aligned to 2 selected Curriculum Studies subjects)			
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
PRACTICUM			
	APR40A	Teaching Practice 2	10

* AS1: Select 1 from the following list of Science Subjects:
Biology, Chemistry, Mathematics, Physics.

\+ 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 BSc (General) (Primary) (2CS)

Group of Courses	**No. of AUs**
Education Studies (Inclusive of Digital Literacy, Professional Practice & Inquiry and Education Research (Regulars and Upgraders) / Research Project (TSPs))	19
Curriculum Studies • CS1 • CS2 Music – Subject Knowledge courses are integrated with CS courses • CS1 • CS2	 12 9 18 15
Subject Knowledge • SK1 • SK2	 6 6
Essential Course (Inclusive of Ethics and Moral Reasoning course)	4
Practicum	18
Language Enhancement and Academic Discourse Skills (LEADS)	5
Academic Subjects	54
General Electives • Regulars and Upgraders • TSP	 6 18

Curriculum Structure for BSc (Ed) (Primary) (Physical Education and Sports Science) Programme

Student teachers enrolled in the BSc (Ed) (Primary) (Physical Education and Sports Science) programme will follow the curriculum structure shown in Table 8 below:

Table 8: Curriculum Structure for the BSc (Ed) (Primary) (Physical Education & Sports Science) Programme

Year 1

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED00A	Professional Practice and Inquiry	0
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10B	Group Endeavours in Service Learning	1
	AED10E[@]	The Social Context of Education in Singapore	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
ACADEMIC SUBJECT			
AS 1		PE & Sports Science	7
CURRICULUM STUDIES			
PE	APC10A	Principles of Games	2
	APC10B	Basketball	2
	APC10J	Fundamental Movement Skills	3
	APC10D	Curriculum Gymnastics	2
	APC10E	Soccer	2
	APC10H	Theory and Practice in Outdoor Education (Primary)	2

[@] Applicable only for student teachers before July 2020 intake.

Cont'd

Year 1

Category/ Subject	Course Code	Title	No. of AUs
SUBJECT KNOWLEDGE (1 or 2 Subject Knowledge areas aligned to CS2) *			
English Language	ASE10A	Grammar	2
Mathematics (For non-AS Math student teachers)	ASM10C	Number Topics	2
	ASM10D	Geometry Topics	2
Science (For student teachers offering AS Biology & student teachers offering other AS)	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
LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS			
	ALS10A	Academic Discourse Skills	3
	ALK10B	Communication Skills for Teachers	2
PRACTICUM			
	APR10A	School Experience	0

* Student teachers have to take up one (1) or two (2) Subject Knowledge (SK) areas which correspond to their choice of Curriculum Studies (CS) subjects.

For student teachers of BSc (Ed) (Physical Education 2 CS Specialisation), CS1 is Physical Education, CS2 can be chosen from the listed courses below.

For student teachers of BSc (Ed) (Physical Education 3 CS Specialisation) *(Only applicable to intakes before July 2016)*, CS1 is Physical Education, CS2 can be chosen from either English Language or Mathematics, CS3 can be chosen from any of the CS subjects other than those of CS1 or CS2.

Note: In addition to the core courses and the required number of prescribed electives, student teachers are required to undertake a compulsory online Ethics and Moral Reasoning course – HY0002.

Year 2

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED20A	Teaching and Managing Learners at the Primary Level	2
	AED20C	Technologies for Meaningful Learning	2
	AED20D	Assessing Learning and Performance	1
Select 1 digital literacy prescribed elective +	AED23 L/M/K	Digital and Media Literacy / Computer Literacy through Coding and Applications / Digital Literacy for Net Generation	3
ACADEMIC SUBJECT			
AS 1		PE & Sports Science	5
CURRICULUM STUDIES			
PE	APC20A	Dance	2
	APC20B	Softball	2
	APC20C	Track & Field	2
	APC20D	Fitness & Health	2
	APC20E	Floorball	2
	APC20G	Volleyball	2
	APC20H	Sports Injury Prevention and Management in PE and Youth Sport	1
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
SUBJECT KNOWLEDGE (1 or 2 Subject Knowledge areas aligned to CS2) *			
English Language	ASE20A	Exploring Language in Texts	2
ESSENTIAL COURSE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
PRACTICUM			
	APR20A	Teaching Assistantship	3

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

* Student teachers have to take up one (1) or two (2) Subject Knowledge (SK) areas which correspond to their choice of Curriculum Studies (CS) subjects.

For student teachers of BSc (Ed) (Physical Education 2 CS Specialisation), CS1 is Physical Education, CS2 can be chosen from the listed courses above.

For student teachers of BSc (Ed) (Physical Education 3 CS Specialisation), CS1 is Physical Education, CS2 can be chosen from either English Language or Mathematics, CS3 can be chosen from any of the CS subjects other than those of CS1 or CS2.

Cont'd

Note: In addition to the core courses and the required number of prescribed electives, student teachers 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
EDUCATION STUDIES			
	AED30D	Supporting Diversity at the Primary Level	1
	AED30E~	Pedagogical Practices	1
	AED40A (Exclude TSP)	Educational Research #^	3
	AED430 (For TSP)	Research Project #^	3
ACADEMIC SUBJECT			
AS 1		PE & Sports Science	18
CURRICULUM STUDIES 1			
PE	APC30A	Badminton	2
	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 I	3
Science	ACS30A	Pedagogies for Primary Science	3
Social Studies	ACL30A	Inquiry in Primary Social Studies	3
SUBJECT KNOWLEDGE (1 Subject Knowledge areas aligned to CS2)			
Art	ASA30B	Pedagogical Practices in Art Classroom	3
GENERAL ELECTIVES @			
			3
PRACTICUM			
	APR30A	Teaching Practice 1	5

~ This course will commence in Jan 2023.

Student teachers are required to read AED40A, except those in the NTU-NIE Teaching Scholars Programme (TSP) who will read AED430 instead.

^ AED40A and AED430 span two semesters.

@ Student teachers are required to select 1 General Elective worth 3 AUs.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
ACADEMIC SUBJECT *			
AS 1		PE & Sports Science	11
CURRICULUM STUDIES 1			
PE	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
SUBJECT KNOWLEDGE (1 Subject Knowledge areas aligned to CS2)			
English Language	ASE40B	Current Trends in English Language Education in the Primary School	2
Mathematics (For non-AS Math student teachers)	ASM40A	Further Mathematics Topics	2
Science (For student teachers offering AS Physics & student teachers offering other AS)	ASK40B	Topics in Biological Science for Primary Science Teaching	3
PRACTICUM			
	APR40A	Teaching Practice 2	10

AUs overview for BSc (Physical Education & Sports Science) (Primary) (2CS)

Group of Courses	No. of AUs
Education Studies (Inclusive of Digital Literacy, Professional Practice & Inquiry and Education Research (Regulars and Upgraders) / Research Project (TSPs))	19
Curriculum Studies • CS1 • CS2	 34 9
Subject Knowledge • SK2	 6
Essential Course (Inclusive of Ethics and Moral Reasoning course)	4
Practicum	18
Language Enhancement and Academic Discourse Skills (LEADS)	5
Academic Subjects	41
General Electives • Regulars and Upgraders • TSP	 6 18

Curriculum Structure for BSc (Ed) (Secondary) (General) Programme

Student teachers enrolled in the BSc (Ed) (Secondary) (General) programme will follow the curriculum structure shown in Table 9 below:

Table 9: Curriculum Structure for BSc (Ed) (Secondary) (General) Programme

Year 1

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED02C	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10B	Group Endeavours in Service Learning	1
	AED10E@	The Social Context of Education in Singapore	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
ACADEMIC SUBJECTS			
AS1		Science Subject *	12
AS2		Arts or Science Subject #	12
LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS			
	ALS10A	Academic Discourse Skills	3
	ALK10B	Communication Skills for Teachers	2
PRACTICUM			
	APR10A	School Experience	0

* AS1: Select one from the following list of Science Subjects:
Biology, Chemistry, Food and Consumer Sciences, Mathematics, Physics.

AS2: Select one from the following list:
Art, Biology, Chemistry, Drama, English Language, English Literature, Geography, History, Mathematics, Music, Physics.

@ Applicable only for student teachers before July 2020 intake.

Note: In addition to the core courses and the required number of prescribed electives, student teachers are required to undertake a compulsory online Ethics and Moral Reasoning Course – HY0002.

Year 2

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED22A	Teaching and Managing Learners at Secondary Level (Part 1)	2
	AED20C	Technologies for Meaningful Learning	2
	AED20D	Assessing Learning and Performance	1
Select 1 digital literacy prescribed elective +	AED23 L/M/K	Digital and Media Literacy / Computer Literacy through Coding and Applications / Digital Literacy for Net Generation	3
ACADEMIC SUBJECTS			
AS1		Science Subject *	18
CURRICULUM STUDIES (CS1 align with AS1, CS2 align with AS2)			
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
Food & Consumer Sciences	ACQ22A	Family and Consumer Sciences Curriculum	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	ACI22B	Classroom Practices in Music I	3
Physics	ACP22A	Understanding the Physics Curriculum	3
Social Studies	ACL22B	Social Studies Education in the Secondary School Classroom	3
ESSENTIAL COURSE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
GENERAL ELECTIVES @			
			6
PRACTICUM			
	APR20A	Teaching Assistantship	3

* AS1: Select one from the following list of Science Subjects:
Biology, Chemistry, Food and Consumer Sciences, Mathematics, Physics.

@ Student teachers are required to select 2 General Electives worth 6 AUs.

Cont'd

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

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

Year 3

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED32B	Teaching and Managing Learners at Secondary Level (Part 2)	1
	AED30E~	Pedagogical Practices	1
	AED40A	Educational Research #^	3
	AED430	Research Project #^	3
ACADEMIC SUBJECT *			
AS1		Science Subject *	9
CURRICULUM STUDIES (CS1 align with AS1, CS2 align with AS2)			
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
Food & Consumer Sciences	ACQ32A	Introduction to Family and Consumer Sciences Teaching	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	ACI32B	Classroom Practices in Music II	3
Physics	ACP32A	Physics Instruction & Microteaching	3
Social Studies	ACL32B	Inquiry-Based Learning Approach Towards the Teaching of Social Studies	3
GENERAL ELECTIVES @			
			6
PRACTICUM			
	APR30A	Teaching Practice 1	5

* AS1: Select one from the following list of Science Subjects:
Biology, Chemistry, Food and Consumer Sciences, Mathematics, Physics.

@ Student teachers are required to select 2 General Electives worth 6 AUs.

Student teachers are required to read AED40A, except those in the NTU-NIE Teaching Scholars (TSP) Programme who will read AED430 instead.

^ AED40A and AED430 span two semesters.

Cont'd

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

˜ This course will commence in Jan 2023.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
ACADEMIC SUBJECT *			
AS1		Science Subject *	12
CURRICULUM STUDIES (CS1 align with AS1, CS2 align with AS2)			
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
Food & Consumer Sciences	ACQ42A	Evaluation in Family and Consumer Sciences Teaching	3
	ACQ42B	Trends in Family and Consumer Sciences Education	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	ACI42C+	Classroom Practices in Music III	3
	ACI42D	Teaching Music as an Examination Subject at O- and N(T)-level	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
PRACTICUM			
	APR40A	Teaching Practice 2	10

* AS1: Select one from the following list of Science Subjects:
Biology, Chemistry, Food and Consumer Sciences, Mathematics, Physics.

+ 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 BSc (General) (Secondary)

Group of Courses	**No. of AUs**
Education Studies (Inclusive of Digital Literacy, Professional Practice & Inquiry and Education Research (Regulars and Upgraders) / Research Project (TSPs))	19
Curriculum Studies • CS1 • CS2	 12 9
Essential Course (Inclusive of Ethics and Moral Reasoning course)	4
Practicum	18
Language Enhancement and Academic Discourse Skills (LEADS)	5
Academic Subjects • AS1 • AS2	 54 12
General Electives • Regulars and Upgraders • TSP	 6 18

Curriculum Structure for BSc (Ed) (Secondary) (Physical Education and Sports Science) Programme

Student teachers enrolled in the BSc (Ed) (PE and Sports Science) (General) programme will follow the curriculum structure shown in Table 10 below:

Table 10: Curriculum Structure for BSc (Ed) (Secondary) (PE and Sports Science) Programme

Year 1

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED02C	Professional Practice and Inquiry	1
	AED10A	Educational Psychology: Theories and Applications for Learning and Teaching	2
	AED10B	Group Endeavours in Service Learning	1
	AED10E[@]	The Social Context of Education in Singapore	2
	AED10G	Character and Citizenship Education in the Singapore Context	2
ACADEMIC SUBJECTS			
AS1		PE & Sports Science	7
AS2		Arts or Science Subject [#]	12
CURRICULUM STUDIES 1			
PE	APC12A	Principles of Games	2
	APC12B	Basketball	2
	APC12J	Fundamental Movement Skills	3
	APC12D	Curriculum Gymnastics	2
	APC12E	Soccer	2
	APC12H	Theory and Practice in Outdoor Education (Secondary)	2
LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS			
	ALS10A	Academic Discourse Skills	3
	ALK10B	Communication Skills for Teachers	2
PRACTICUM			
	APR10A	School Experience	0

[@] Applicable only for student teachers before July 2020 intake.

[#] AS2: Select 1 from the following list:
Art, Biology, Chemistry, Drama, English Language, English Literature, Geography, History, Mathematics, Music, Physics, Social Studies.

Cont'd

Note: In addition to the core courses and the required number of prescribed electives, student teachers are required to undertake a compulsory online Ethics and Moral Reasoning course – HY0002.

Year 2

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED22A	Teaching and Managing Learners at Secondary Level (Part 1)	2
	AED20C	Technologies for Meaningful Learning	2
	AED20F	Assessing Learning and Performance	1
Select 1 digital literacy prescribed elective +	AED23 L/M/K	Digital and Media Literacy / Computer Literacy through Coding and Applications / Digital Literacy for the Net Generation	3
ACADEMIC SUBJECT 1			
AS1		PE & Sports Science	5
CURRICULUM STUDIES 1			
PE	APC22A	Dance	2
	APC22B	Softball	2
	APC22C	Track & Field	2
	APC22D	Fitness & Health	2
	APC22E	Floorball	2
	APC22G	Volleyball	2
	APC22H	Sports Injury Prevention and Management in PE and Youth Sport	1
CURRICULUM STUDIES 2 (Align with Academic Subject 2)			
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	ACI22B	Classroom Practices in Music I	3
Physics	ACP22A	Understanding the Physics Curriculum	3
Social Studies	ACL22B	Social Studies Education in the Secondary School Classroom	3
ESSENTIAL COURSE			
	AMX20A	Multicultural Studies: Appreciating & Valuing Differences	3
GENERAL ELECTIVES @			
			6
PRACTICUM			
	APR20A	Teaching Assistantship	3

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

Cont'd

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

@ Student teachers are required to select 2 General Electives worth 6 AUs.

Year 3

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
	AED32B	Teaching and Managing Learners at Secondary Level (Part 2)	1
	AED30E~	Pedagogical Practices	1
	AED40A	Educational Research #^	3
	AED430	Research Project #^	3
ACADEMIC SUBJECT 1			
AS1		PE & Sports Science	15
CURRICULUM STUDIES 1			
PE	APC32A	Badminton	2
	APC32C	Instructional Methods in Physical Education	3
CURRICULUM STUDIES 2 (Align with Academic Subject 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	ACI32B	Classroom Practices in Music II	3
Physics	ACP32A	Physics Instruction & Microteaching	3
Social Studies	ACL32B	Inquiry-Based Learning Approach Towards the Teaching of Social Studies	3
GENERAL ELECTIVES @			
			6
PRACTICUM			
	APR30A	Teaching Practice 1	5

~ This course will commence in Jan 2023.

Student teachers are required to read AED40A, except those in the NTU-NIE Teaching Scholars (TSP) Programme who will read AED430 instead.

^ AED40A and AED430 span two semesters.

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

@ Student teachers are required to select 2 General Electives worth 6 AUs.

Year 4

Category/ Subject	Course Code	Title	No. of AUs
EDUCATION STUDIES			
ACADEMIC SUBJECT 1			
AS1		PE & Sports Science	8
CURRICULUM STUDIES 1			
PE	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	ACI42C+	Classroom Practices in Music III	3
	ACI42D	Teaching Music as an Examination Subject at O- and N(T)-level	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
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 BSc (PE and Sports Science) (Secondary)

Group of Courses	**No. of AUs**
Education Studies (Inclusive of Digital Literacy, Professional Practice & Inquiry and Education Research (Regulars and Upgraders) / Research Project (TSPs))	19
Curriculum Studies • CS1 • CS2	 34 9
Essential Course (Inclusive of Ethics and Moral Reasoning course)	4
Practicum	18
Language Enhancement and Academic Discourse Skills (LEADS)	5
Academic Subjects • AS1 • AS2	 35 12
General Electives • Regulars and Upgraders • TSP	 6 18

Education Studies

This area of study will acquaint student teachers with the key concepts and principles in education that are necessary for effective instruction and reflective practice in primary and secondary schools. Nine core courses for Education Studies are compulsory and deal with basic educational concepts such as pupil development, the learning and thinking process, the social context within which schooling operates, the application of psychology in teaching and learning, and the use of instructional technologies.

Education Studies

Primary Track

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AED00C	Professional Practice and Inquiry	Core	1	-
	AED10A	Educational Psychology I: Theories and Applications for Learning and Teaching	Core	2	-
	AED10B	Group Endeavours in Service Learning	Core	1	-
	AED10E@	The Social Context of Education in Singapore	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	-
	AED20C	Technologies for Meaningful Learning	Core	2	-
	AED20D	Assessing Learning and Performance	Core	1	-
	Select any 1 elective				
	AED23K	Digital Literacy for the Net Generation	Pres	3	-
	AED23L	Digital and Media Literacy	Pres	3	-
	AED23M	Computer Literacy through Coding and Applications	Pres	3	-
3	AED30D	Supporting Diversity at the Primary Level	Core	1	-
	AED30E~	Pedagogical Practices	Core	1	-
	Either AED40A or AED430 #^				
	AED40A	Educational Research	Core	3	-
	AED430	Research Project	Core	3	-

@ Applicable only for student teachers before July 2020 intake.

~ This course will commence in Jan 2023.

Student teachers are required to read AED40A, except those in the NTU-NIE Teaching Scholars (TSP) Programme who will read AED430 instead.

^ AED40A and AED430 span two semesters.

Secondary Track

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AED02C	Professional Practice and Inquiry	Core	1	-
	AED10A	Educational Psychology I: Theories and Applications for Learning and Teaching	Core	2	-
	AED10B	Group Endeavours in Service Learning	Core	1	-
	AED10E@	The Social Context of Education in Singapore	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	-
	AED20C	Technologies for Meaningful Learning	Core	2	-
	AED20D	Assessing Learning and Performance	Core	1	-
	Select any 1 elective				
	AED23K	Digital Literacy for the Net Generation	Pres	3	-
	AED23L	Digital and Media Literacy	Pres	3	-
	AED23M	Computer Literacy through Coding and Applications	Pres	3	-
3	AED30E~	Pedagogical Practices	Core	1	-
	AED32B	Teaching and Managing Learners at Secondary Level (Part 2)	Core	1	-
	Either AED40A or AED430 #^				
	AED40A	Educational Research	Core	3	-
	AED430	Research Project	Core	3	-

@ Applicable only for student teachers before July 2020 intake.

~ This course will commence in Jan 2023.

Student teachers are required to read AED40A, except those in the NTU-NIE Teaching Scholars (TSP) Programme who will read AED430 instead.

^ AED40A and AED430 span two semesters.

Note: The courses listed below are only meant for Dip Ed crossovers and returning teachers entering the BA/BSc (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/ 02C Professional Practice and Inquiry

This course provides the foundation for students to understand the process of integrating and aggregating their learning, be reflective and establish the theory-practice connection to 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.

Embedded within the PPI course is the use of a Digital Portfolio to facilitate students' 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 in NIE to prepare them for their practice. During professional practice, 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 Competencies.

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 analyze 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.

AED10B Group Endeavours in Service Learning

Group Endeavours in Service Learning (GESL) is a service-learning community engagement project which is mandatory for all student teachers. Student teachers work in groups of about 20 on a service-learning project that they craft together in partnership with an/several organization(s). 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 meet identified community needs and their learning objectives. Service and learning objectives are determined before the group commence on their project. Each group has a staff mentor who mentors, guides, and eventually assesses the group on their project. It is hoped that through the experience of conducting a service-learning project, each student teacher would develop social-emotional learning competencies, project

management skills, teamwork, needs analysis, decision-making, and empathy towards the communities they serve.

AED10E The Social Context of Education in Singapore

This course prepares beginning primary, secondary and junior college school teachers to have a clear understanding of the social context within which they will undertake their work. They will understand the key functions of education within Singapore, namely, supporting economic development, fostering social cohesion, and socializing young people into their citizenship roles. In addition, they will understand the major policy directions driving education reform and the attempts to ameliorate educational inequalities. Furthermore, they will consider the social context of character and citizenship education and discuss how to forge meaningful partnerships with other stakeholders in education. Finally, they will discuss the relevance of the wider context of education in Singapore for their personal growth and professional development as teachers.

AED10G Character and Citizenship Education in the Singapore Context

The purpose of education in Singapore is clearly tied to the goals of Character and Citizenship Education (CCE) and teachers' involvement in CCE is integral to our mission to nurture every student holistically. This course seeks to give you an appreciation of why CCE is central to education, what CCE means and includes, and how CCE can be promoted. Specifically, the course will challenge you to understand the importance of CCE and your role in supporting CCE. It

does these by attending to the social context of education in Singapore. Importantly, you will also acquire and apply strategies to support your students' learning in CCE. Upon completion of this course, you should have the relevant teacher competencies to enact CCE in the schools.

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.

AED20C Technologies for Meaningful Learning

This course prepares student teachers to engage learners in the use of technology for 21st century meaningful/quality learning. Student teachers will use a framework for 21st century quality learning (authentic, active, reflective and collaborative learning) to examine critical issues related to the design of technology-enhanced lessons. Besides focusing on the characteristics of 21st century quality learning, cyber wellness and considerations to promote responsible use of technology and digital literacy will also be discussed. Student teachers will be required to demonstrate their ability to integrate content, pedagogical and technological knowledge in designing meaningful technology-enhanced teaching and learning activities.

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 school teachers 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 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.

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 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 hopes to develop analytical and imaginative thinking skills for real-life problem solving by linking theories to practice in the educational and psychological domains.

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

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 student teachers 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.

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.

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)

This course aims equip student teachers with relevant classroom management skills and pedagogical approaches to effectively accommodate their students' differentiated learning needs; appealing to learners of various needs and abilities across their different stages of development. By the end of the course, student teachers will be aware of the knowledge, skills and attitudes required of student teachers to manage their diverse learners in the classroom. The main focus of this course is to consolidate student teachers' understanding of their role as a student teacher, the learning environment and approaches to managing

learners which focuses mainly on diverse learners classroom management skills together, and the application of relevant strategies to support the pupils in their learning and development. To emphasise on the theory-practice link to strengthen competencies of student teachers with respect to classroom management challenges, the course includes a component which requires student teachers to experience and heighten their awareness of authentic classroom situation from their practicum attachment.

AED40A Educational Research

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.

AED430 Research Project

This is an introductory course into research. This course aims to provide an unparalleled opportunity for student teachers and faculty members to explore a topic of mutual interest together, following a spontaneous flow of dialogue and intellectual exchange in the spirit of learning.

Curriculum Studies

BA (Ed)/BSc (Ed) student teachers will specialise in the methodology for teaching at either the primary or secondary school level. These are designed to give student teachers the pedagogical skills in teaching specific subjects in Singapore schools. The choice of Curriculum Studies (CS) subjects depends on the track and options to which the student teacher has selected.

Primary Track

General : (Three Curriculum Studies Track) *(Only applicable to intakes before July 2016)*	Any 3 CS subjects from o Art o English Language o Mathematics o Music o Science o Social Studies
(Two Curriculum Studies Track)	Any 2 CS subjects from o Art o English Language o Mathematics o Music o Science o Social Studies
Chinese specialisation	CS1: Chinese Language CS2: Character and Citizenship Education (Chinese)
Malay specialisation	CS1: Malay Language CS2: Character and Citizenship Education (Malay)
Tamil specialisation	CS1: Tamil Language CS2: Character and Citizenship Education and Tamil Literature
Physical Education and Sports Science (PESS) 2 CS specialisation	CS1: PESS CS2: Any CS subject (if not selected as CS1): o English Language o Mathematics o Music o Science o Social Studies
Physical Education and Sports Science (PESS) 3 CS specialisation *(Only applicable to intakes before July 2016)*	CS1: PESS CS2: English Language or Mathematics CS3: Any CS subject (if not selected as CS2): o Art o English Language o Mathematics o Music o Science o Social Studies

Secondary Track

General	Student teachers will offer 2 CS subjects which are aligned with the choice of Academic Subjects (AS) chosen. CS1 will align with AS1 and CS2 will be aligned with AS2. For a full list of AS subjects, see section on Academic Subjects.
Chinese specialisation	CS1: Chinese Language CS2: Chinese Literature
Malay specialisation	CS1: Malay Language CS2: Malay Literature
Tamil specialisation	CS1: Tamil Language CS2: Character and Citizenship Education and Tamil Literature
Physical Education and Sports Science (PESS) specialisation	CS1: PESS CS2: aligned with AS2

The Teaching of Art (Primary)

Table 1: CS1 Art Structure for BA (Ed) (Primary 2 CS Track)

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: CS1 Art Structure for BA (Ed) (Primary 3 CS Track)
CS2 Art Structure for BA/BSc (Ed) (Primary 2 CS Track)

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

This course is important for student teachers who are going to be art teachers in primary schools. This course aims to prepare student teachers with the competencies to design art curriculum for primary schools.

The Teaching of Chinese Language (Primary)

Table 1: CS1 Chinese Language Structure for BA (Ed) (Primary 2 CS Track)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACC20A	Teaching of Chinese: Form and Meaning	Core	3	-
	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	-

ACC20A Teaching of Chinese: Form and Meaning

This course equips student teachers with the pedagogical theory and knowledge to deal with the teaching of the form and meaning of the Chinese language in the local classroom context. Making close reference to the current mainstream CL curriculum and instructional materials, topics to be covered include: the relationship between behaviourist and cognitivist theories and the teaching of Chinese language, the teaching of *Hanyu Pinyin* (phonetic transcription system), the teaching of Chinese characters, the teaching of vocabulary, the teaching of sentence construction and the teaching of genre and text analysis.

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. Student teachers will then be guided systematically, through the use of case studies and sample lesson plans, to analyze 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 student teachers 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; analyzing and interpreting test statistics.

The Teaching of Chinese Character and Citizenship Education (Primary)

Table 1: CS2 Chinese Character and Citizenship Education Structure for BA/BSc (Ed) (CL)

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 student teachers' knowledge and understanding of Children's Literature. They will be exposed to various genres including poem, fairy tales, fables and legend and picture books. Student teachers 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 BA (Ed) (Primary 2 CS Track)

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: CS1 English Language Structure for BA (Ed) (Primary 3 CS Track)
CS2 English Language Structure for BA/BSc (Ed) (Primary 2 CS Track)

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 Studies (CELS)

BA/BSc (Ed) (Primary) student teachers doing English Language as a Curriculum Studies (CS) but not studying English Language as an Academic Studies (AS) subject 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)

On 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 BA (Ed) (ML)

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 Malay Character and Citizenship Education (Primary)

Table 1: CS2 Malay Character and Citizenship 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 BA/BSc (Ed) (Primary 2 CS Track)

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 BA/BSc (Ed) (Primary 2 CS Track)

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 student teachers to (i) the teaching of topics such as Measurement, Geometry, and Statistics (ii) microteaching involving student teachers showcasing their 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 BA (Ed) (Primary 2 CS Track)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	ACI10B	Musicianship for the Classroom I	Core	3	-
2	ACI20B	Musicianship for the Classroom II	Core	3	ACI10B
3	ACI30B	Theory and Practice of Music Education I	Core	3	-
4	ACI40D	Musicianship for the Classroom III	Core	3	ACI10B ACI20B
	ACI40G	Theory and Practice of Music Education II	Core	3	ACI30B
	ACI40E	Theory and Practice of Music Education III	Core	3	ACI30B ACI40G

Table 2: CS1 Music Structure for BA (Ed) (Primary 3 CS Track)
CS2 Music Structure for BA/BSc (Ed) (Primary 2 CS Track)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	ACI10B	Musicianship for the Classroom I	Core	3	-
2	ACI20B	Musicianship for the Classroom II	Core	3	ACI10B
3	ACI30B	Theory and Practice of Music Education I	Core	3	-
4	ACI40D	Musicianship for the Classroom III	Core	3	ACI10B ACI20B
	ACI40G	Theory and Practice of Music Education II	Core	3	ACI30B

ACI10B Musicianship for the Classroom I

This is a practical course that develops basic musicianship skills useful to the primary classroom music teacher. Student teachers will be given an introduction to guitar/ukulele and classroom

percussion and drums. Integration of music with other art forms will also be discussed.

ACI20B Musicianship for the Classroom II

This practical course develops student teachers in aural and composition/improvisation skills. Ensemble skills within Orff instruments, recorder and classroom instruments are encouraged as well as basic movement skills and accompanying vocabulary.

Included within the course is an examination of the Singapore General Music Programme syllabus through practical engagement in singing, instrumental playing and groupwork in world musics, classical and popular music cultures. Student teachers will develop their basic musicianship with the three central music pedagogies; namely, Kodaly, Dalcroze and Orff.

ACI30B Theory and Practice of Music Education I

This course begins with an exploration of the key principles of music education. These include understanding the key stages of children's musical learning and the multiple function of music in children's lives. Also, the course will explore the roles of music teachers in the classroom. The course then examines the theory and practice of key pedagogical approaches used in the lower primary music classroom. These include pedagogies related to music and movement, singing and musical literacy. Student–centric approaches that encourage the development of critical and inventive thinking, collaboration, global awareness and cross-cultural skills will also be infused within the discussion and applications of the pedagogies.

ACI40D Musicianship for the Classroom III

This practical course develops student teachers in aural and composition/improvisation skills. Ensemble skills within a pop band setup (guitar, bass guitar, drums, vocals, Keyboard skills, amplifier and mixer) is encouraged as well as ICT-based musicianship.

Included within the course is an examination of the P5 and P6 Singapore General Music Programme syllabus through practical engagement in singing, instrumental playing and informal learning in world musics and popular music cultures. Student teachers will develop their basic musicianship with informal music learning practices.

ACI40G Theory and Practice of Music Education II

The course examines the theory and practice of key pedagogical approaches used in the upper primary music classroom. These include pedagogies related to instrumental playing, composing and improvising, creative music making, world musics in education and informal music making processes (including popular music). Student–centric approaches that encourage the development of critical and inventive thinking, collaboration, global awareness and cross-cultural skills, will also be infused within the discussion and application of the pedagogies. Foundations to music education such as those espoused by Estelle Jorgensen, David Elliot, Lucy Green, Keith Swanwick and others will also be used to generate critical dialogue.

ACI40E Theory and Practice of Music Education III

This course follows on from ACI30B and ACI40G by further examining the theory and practice of pedagogical strategies used in curriculum planning and delivery for the primary music classroom. In particular, it looks at how assessment and music improvisation may be effectively incorporated into curriculum planning and delivery to drive learning outcomes. Upon course completion, you will be able to formulate and implement music lessons more effectively by deploying an increased repertoire of assessment and improvisational strategies to address diverse student learning needs.

The Teaching of Physical Education (Primary)

Table 1: CS Physical Education Structure for BA/BSc (Ed) (Primary) (PESS)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	APC10A	Principles of Games	Core	2	-
	APC10B	Basketball	Core	2	-
	APC10J	Fundamental Movement Skills	Core	3	-
	APC10D	Curriculum Gymnastics	Core	2	-
	APC10E	Soccer	Core	2	-
	APC10H	Theory and Practice in Outdoor Education (Primary)	Core	2	-
2	APC20A	Dance	Core	2	-
	APC20B	Softball	Core	2	-
	APC20C	Track & Field	Core	2	-
	APC20D	Fitness & Health	Core	2	-
	APC20E	Floorball	Core	2	-
	APC20G	Volleyball	Core	2	-
	APC20H	Sports Injury Prevention and Management in PE and Youth Sport	Core	1	-
3	APC30A	Badminton	Core	2	-
	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 BA/BSc (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
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	-
APC24L	DanceSport	Pres	3	-
APC24M	Introduction to Hip-Hop & its Dances	Pres	3	-
APC24N	Introduction to Modern Jazz Dance	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.

APC10B Basketball

This course is designed to provide student teachers with the opportunity to develop their techniques, skills and game performance in Basketball and acquire lesson ideas, content development/progressions and

teaching strategies for the teaching of Basketball in primary schools.

They will be introduced to developmentally appropriate teaching styles / strategies / approaches / models that develop their pupils into confident and active participants of the game. These approaches include Teaching Games for Understanding (TGFU), Play Practice, Games Concept Approach (GCA) and 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 (IT) will also be introduced.

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.

APC10D Curriculum Gymnastics

This course will introduce curriculum gymnastics through a developmental approach that allows the participants to explore movement themes largely on floor activities, gradually progressing from simple to complex apparatus designs. More advanced floor and apparatus skills will 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 of teaching suitable for primary schools. It is anticipated that participants will complete the course with a heightened level of confidence and personal conviction for teaching gymnastics in a progressive, creative and safe manner.

APC10E Soccer

This course is designed to provide student teachers with the opportunity to develop their techniques, skills and game performance in soccer and acquire lesson ideas, content development/progressions and teaching strategies for the teaching of soccer in primary schools.

They will be introduced to developmentally appropriate teaching styles / strategies / approaches / models that develop their pupils into confident and active participants of the game. These approaches include Teaching Games for Understanding (TGFU), Play Practice, Games Concept Approach (GCA) and 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 (IT) will also be introduced.

APC10H Theory and Practice in Outdoor Education (Primary)

This course examines the key philosophical underpinnings related to outdoor education. Student teachers will gain an understanding of the outdoor education learning outcomes in the Primary and Secondary PE curriculum. Student teachers will also be equipped with basic outdoor skills through practical sessions. The course will culminate in outdoor camp and learning journey experiences where student teachers will be able to apply their newly acquired knowledge and skills.

APC20A Dance

This course is designed to provide student teachers with the opportunity to develop their techniques, skills and performance in dance and acquire lesson ideas, content development / progressions and teaching strategies for the teaching of dance in primary schools.

They will be introduced to developmentally appropriate teaching styles / strategies / approaches that develop their pupils into confident and active participants of dance. These approaches include teaching methods (problem-solving, facilitation, command style, reciprocal) and resource for the planning and instruction of folk dances and creative dance. It also aims to give student teachers a chance to discover the creative juice in them and draw on the elements of dance to create their own dances.

Relevant Sports Science knowledge behind effective techniques, skills, and their development in dance, various dance-specific assessments as well as the use of information technology (IT) will also be introduced.

APC20B Softball

This course is designed to provide student teachers with the opportunity to develop their techniques, skills and game performance in Softball and acquire lesson ideas, content development/progressions and teaching strategies for the teaching of Softball in primary schools.

They will be introduced to developmentally appropriate teaching styles / strategies / approaches / models that develop their pupils into confident and active participants of the game. These approaches include Teaching Games for Understanding (TGFU), Play Practice, Games Concept Approach (GCA) and 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 (IT) will also be introduced.

APC20C Track & Field

This course is designed to impart the necessary skills and knowledge to student teachers to teach Athletics (track and field events) to youths in a primary school setting.

They will be introduced to developmentally appropriate teaching approaches such as Teaching Games for Understanding (TGFU), Games Concept Approach (GCA), and Sport Education Model (SEP). Relevant sport science knowledge, assessment tools, and the use of information technology will be incorporated.

APC20D Fitness & Health

This course is designed to help student teachers acquire knowledge and skills in health, wellness and fitness so as to promote and develop a lifelong physically active and healthy lifestyle in their pupils.

They will be introduced to developmentally appropriate activities to develop various components of fitness and design safe and effective exercise programmes for their pupils.

APC20E Floorball

This course is designed to provide student teachers with the opportunity to develop their techniques, skills and game performance in floorball and acquire lesson ideas, content development / progressions and

teaching strategies for the teaching of floorball 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 game. These approaches include Teaching Games for Understanding (TGFU), Play Practice, Games Concept Approach (GCA) and 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 (IT) will also be introduced.

APC20G Volleyball

This course is designed to provide student teachers with the opportunity to develop their techniques, skills and game performance in Volleyball and acquire lesson ideas, content development/progressions and teaching strategies for the teaching of Volleyball in primary schools.

They will be introduced to developmentally appropriate teaching styles / strategies / approaches / models that develop their pupils into confident and active participants of the game. These approaches include Teaching Games for Understanding (TGFU), Play Practice, Games Concept Approach (GCA) and 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 (IT) will also be introduced.

APC20H Sports Injury Prevention and Management in PE and Youth Sport

This course is designed to provide the primary-track physical education student teachers with the fundamental knowledge and skills to understand the growth-related biological aspects, risk factors, causes and mechanisms of youth sports injuries with specific emphasis on physical education settings in schools. The course will also include the principles and strategies of prevention and management of injuries in PE and youth sport.

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.

APC24L Dance Sport

The course is designed as an exposure course to introduce you to six out of 10 dances in dancesport.

The course aims to teach you the intricacies and rhythmic differences of each dance, technique, and the different personification of characters that are unique to every dance.

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.

APC24N Introduction to Modern Jazz Dance

The course is designed as an exposure course to introduce you to Modern Jazz and its various forms. The course aims to teach you various basic jazz techniques, theory and safety principles, as well as to develop grace, strength, coordination and creativity throughout the weeks.

APC30A Badminton

This course is designed to provide student teachers with the opportunity to develop their techniques, skills and game performance in badminton and acquire lesson ideas, content development / progressions and teaching strategies for the teaching of badminton 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 game.

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 (IT) will also be introduced.

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 BA/BSc (Ed) (Primary 2 CS Track)

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: CS1 Science Structure for BA/BSc (Ed) (Primary 3 CS Track)
CS2 Science Structure for BA/BSc (Ed) (Primary 2 CS Track)

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 BA/BSc (Ed) (Primary 2 CS Track)

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 Primary Social Studies Classroom	Core	3	-
	ACL40B	Curriculum Leadership in Primary Social Studies	Core	3	-

Table 2: CS2 Social Studies Structure for BA/BSc (Ed) (Primary 2 CS Track)

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 Primary Social Studies Classroom	Core	3	-

ACL20A Teaching Social Studies in the Primary Classroom

This course aims to provide student teachers with an understanding of the nature, scope and goals of Social Studies in the context of the Singapore primary curriculum. It seeks to equip them with the knowledge and skills necessary to engage primary school children in meaningful learning of Social Studies. Student teachers will be given opportunities during tutorial sessions to design 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 and

geographical 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 designers, 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 Primary 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 student teachers 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 them 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 BA/BSc (Ed) (TL)

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 taking Tamil Language & Literature will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

ACT10A Assessment in Tamil Language Teaching

This course focuses on the importance of assessments in second language and mother tongue language teaching in Singapore. It also aims to provide a greater understanding of the rationale behind the formal and informal assessments and evaluation in bringing the best potential of students in Tamil language classes. You will be given formative and summative assessments related theories, models and practices to equip you as effective assessors of your students. You will 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 student teachers to understand the importance of writing and reading research articles to create an impact in Language Education. In particular Tamil Language Education and Pedagogy implemented in a second language environment in Singapore. By analysing research papers on various topics produced by Tamil Academics, student teachers will be able to learn and use various kinds of pedagogical approaches to facilitate reading and writing in classrooms to sustain student teachers' needs, interests and desires in language education.

ACT20B Teaching of Reading and Writing in Tamil Language

This course aims to help you develop the knowledge of processes and strategies to teach reading and writing at the primary level. It will equip you with an understanding of the five essential components of effective reading: phonemic awareness, phonics, fluency, vocabulary and comprehension of text. You 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. Importance of process writing and the various strategies to tackle writing will also be addressed.

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 Tamil Character and Citizenship Education (Primary)

Table 1: CS2 Tamil CCE Structure for BA/BSc (Ed) (TL)

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 taking Tamil Language & Literature 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 have a deeper understanding of the MOE guidelines and expectations of a 21st Century learner. You will be equipped to adopt new pedagogical methods to apply in your classroom teaching to enhance learning as well as use the different CCE assessment methods to ensure effective learning.

ACK40A Character and Citizenship Education and Moral Literature

The course aims to enlighten student teachers on the use of knowledge gained from moral literature in moral education through texts such as “Kondrai Venthan”, “Moothurai”, etc. They 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, student teachers will be able to mould useful citizens in classrooms.

ACK40B Character and Citizenship Education and Children Literature

This course equips you with the pedagogical theory and cultural knowledge to work with the teaching of Character and Citizenship Education. It infuses content knowledge from ancient and current Children Literature in inculcating values to local context. You will explain the content, form and values based knowledge to your students to become values and character based good citizens and children in their school life.

Renowned Indian and Singapore children literary authors, literary poems, stories, dramas and essays, etc., will be explained through various pedagogical approaches to your school students to develop their character and knowledge on citizenship.

The Teaching of Art (Secondary)

Table 1: CS1 Art Structure for BA (Ed) (Secondary Track)

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 BA (Ed) (Secondary Track)

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 BA/BSc (Ed)

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 BA/BSc (Ed)

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 BA/BSc (Ed)

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 BA/BSc (Ed)

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 BA (Ed)

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; analyzing 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 BA (Ed)

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 BA/BSc (Ed)

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 BA/BSc (Ed)

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 BA/BSC (Ed)

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 BA/BSc (Ed)

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 BA (Ed)

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 BA/BSc (Ed)

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 Food and Consumer Sciences (Secondary)

Table 1: CS1 Food and Consumer Sciences Structure for BA/BSc (Ed)

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 Geography (Secondary)

Table 1: CS1 Geography Structure for BA (Ed)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACG22A	Planning for Geography Teaching	Core	3	AAG10A and AAG10B
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 BA/BSc (Ed)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACG22A	Planning for Geography Teaching	Core	3	AAG10A and AAG10B
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 student teachers 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 student teachers acquire a deep understanding of geography as a discipline, make meaning of the geography curriculum and appreciate the purpose of geography education so that they can plan for meaningful learning of geography for their learners.

ACG32A Classroom-based Teaching Strategies

This course aims to provide student teachers 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 student teachers in the classroom and enable them to develop key geographical understandings.

ACG42A Advanced Teaching Strategies in Geography

This course aims to deepen student teachers' 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 student teachers 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 student teachers in the field. The second component of the course seeks to guide student teachers inquiry into the fundamentals of summative assessment in geography. It focuses on providing student teachers with opportunities to craft summative assessment items with accompanying mark schemes.

The Teaching of History (Secondary)

Table 1: CS1 History Structure for BA (Ed)

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 BA/BSc (Ed)

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 student teachers to the teaching and learning of history in secondary schools. It examines the nature and purpose of history education in the curriculum, and provides student teachers 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 student teachers 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. Student teachers 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 student teachers to develop expertise and competency to carry out assessment in history at the secondary level. It is designed to allow them 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 student teachers 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 student teachers with practical experience in setting source-based and structured-essay questions, guides them through the process of devising marking schemes, and examines ways they can conduct formative assessment in the history classroom.

The Teaching of Malay Language (Secondary)

Table 1: CS1 Malay Language Structure for BA(Ed)

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 BA (Ed)

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 BA/BSc (Ed)

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 BA/BSc (Ed)

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 BA/BSc (Ed)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACI22B	Classroom Practices in Music I	Core	3	-
3	ACI32B	Classroom Practices in Music II	Core	3	ACI22B
4	ACI42C	Classroom Practices in Music III	Core	3	ACI32B
	ACI42D	Teaching Music as an Examination Subject at O- and N(T)-level	Core	3	-

Table 2: CS2 Music Structure for BA/BSc (Ed)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	ACI22B	Classroom Practices in Music I	Core	3	-
3	ACI32B	Classroom Practices in Music II	Core	3	ACI22B
4	ACI42D	Teaching Music as an Examination Subject at O- and N(T)-level	Core	3	-

ACI22B Classroom Practices in Music I

This course aims to equip you with the skills to formulate instructional goals and organize teaching strategies, and to utilize a variety of techniques, materials, and musicianship skills in the secondary music classroom. Upon course completion, you will be able to plan and implement lessons in the lower secondary music classroom through an understanding of practical curriculum planning strategies and various pedagogical approaches in music education.

ACI32B Classroom Practices in Music II

This course aims to equip you with the skills to formulate instructional goals and organize teaching strategies, and to utilize a variety of techniques, materials, and musicianship skills in the secondary music classroom. A continuation from Classroom

Practices in Music I, you will be able to plan and implement lessons in the lower secondary music classroom through an understanding of practical curriculum planning strategies and various pedagogical approaches in music education upon course completion.

ACI42C Classroom Practices in Music III

This course aims to equip you with the skills to formulate instructional goals and organize teaching strategies, and to utilize a variety of techniques, materials, and musicianship skills in the secondary music classroom. Upon course completion, you will be able to plan and implement lessons in the lower secondary music classroom by acquiring an understanding of music improvisation and assessment for learning in music education.

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.

The Teaching of Physics (Secondary)

Table 1: CS1 Physics Structure for BSc (Ed)

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 BA/BSc (Ed)

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., pure physics, combined science (physics)) and for different streams (express and normal academic) 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 BSc (Ed) (PESS)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	APC12A	Principles of Games	Core	2	-
	APC12B	Basketball	Core	2	-
	APC12J	Fundamental Movement Skills	Core	3	-
	APC12D	Curriculum Gymnastics	Core	2	-
	APC12E	Soccer	Core	2	-
	APC12H	Theory and Practice in Outdoor Education (Secondary)	Core	2	-
2	APC22A	Dance	Core	2	-
	APC22B	Softball	Core	2	-
	APC22C	Track & Field	Core	2	-
	APC22D	Fitness & Health	Core	2	-
	APC22E	Floorball	Core	2	-
	APC22G	Volleyball	Core	2	-
	APC22H	Sports Injury Prevention and Management in PE and Youth Sport	Core	1	-
3	APC32A	Badminton	Core	2	-
	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.

APC12B Basketball

This course is designed to provide student teachers with the opportunity to develop their skills and game performance in Basketball and acquire lesson ideas, content development / progressions and teaching strategies for the teaching of Basketball in secondary schools.

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 in a variety of sports and physical activities.

APC12D Curriculum Gymnastics

As Curriculum Gymnastics is not part of the Secondary school curriculum, the student teachers taking this

elective will follow the primary course outline as a preparatory gymnastics programme. This course will introduce curriculum gymnastics through a developmental approach that allows the participants to explore movement themes largely on floor activities, gradually progressing from simple to complex apparatus designs. More advanced floor and apparatus skills will be taught with a focus on progression as well as safety.

APC12E Soccer

This course is designed to provide student teachers with the opportunity to develop their skills and game performance in soccer and acquire lesson ideas, content development / progressions and teaching strategies for the teaching of soccer in secondary schools. Student teachers will be introduced to developmentally appropriate teaching styles / strategies / approaches / models that develop their pupils into enthusiastic and competent participants of the game. These approaches include Teaching Games for Understanding (TGFU), Play Practice, Games Concept Approach (GCA) and Sport Education Model (SEP).

APC12H Theory and Practice in Outdoor Education (Secondary)

This course examines the key philosophical underpinnings related to outdoor education. Student teachers will gain an understanding of the outdoor education learning outcomes in the Primary and Secondary PE curriculum. Student teachers will also be equipped with basic outdoor skills through practical sessions. The course will culminate in outdoor camp

and learning journey experiences where student teachers will be able to apply their newly acquired knowledge and skills.

APC22A Dance

This course is designed to provide student teachers with the opportunity to develop their techniques, skills and performance in dance and acquire lesson ideas, content development / progressions and teaching strategies for the teaching of dance in secondary schools.

APC22B Softball

This course is designed to provide student teachers with the opportunity to develop their techniques, skills and game performance in Softball and acquire lesson ideas, content development / progressions and teaching strategies for the teaching of Softball in secondary schools.

APC22C Track & Field

This course is designed to impart the necessary skills and knowledge to student teachers to teach selected Track & Field events to youths in a secondary school setting.

APC22D Fitness & Health

This course is designed to help student teachers acquire knowledge and skills in health, wellness and

fitness so as to promote and develop a lifelong physically active and healthy lifestyle in their pupils.

APC22E Floorball

This course is designed to provide student teachers with the opportunity to develop their skills and game performance in floorball and acquire lesson ideas, content development / progressions and teaching strategies for the teaching of floorball in secondary schools.

APC22G Volleyball

This course is designed to provide student teachers with the opportunity to develop their skills and game performance in Volleyball and acquire lesson ideas, content development / progressions and teaching strategies for the teaching of Volleyball in secondary schools.

Student teachers will be introduced to developmentally appropriate teaching styles / strategies / approaches / models that develop their pupils into enthusiastic and competent participants of the game. These approaches include Teaching Games for Understanding (TGFU), Play Practice, Games Concept Approach (GCA) and 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 (IT) will also be introduced.

APC22H Sports Injury Prevention and Management in PE and Youth Sport

This course is designed to provide the secondary-track pre-service physical education student teachers with the fundamental knowledge and skills to understand the growth-related biological aspects, risk factors, causes and mechanisms of youth sports injuries with specific emphasis on physical education settings in schools. The course will also include the principles and strategies of prevention and management of injuries in PE and youth sport.

APC32A Badminton

This course is designed to provide student teachers with the opportunity to develop their techniques, skills and game performance in badminton and acquire lesson ideas, content development / progressions and teaching strategies for the teaching of badminton in secondary 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 game.

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 (IT) will also be introduced.

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 knowledge 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 BA/BSc (Ed) (Secondary 2 CS Track)

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 BA/BSc (Ed) (TL)

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 taking Tamil Language & Literature 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 student teachers to understand the rationale behind the formal and informal assessments and evaluation in bringing the best potential in Teaching and Learning of Tamil Language at Primary Level. Student teachers 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 student teachers to understand the importance of writing and reading research articles to create an impact in Language Education. In particular Tamil Language Education and Pedagogy implemented in a second language

environment in Singapore. By analysing research papers on various topics produced by Tamil Academics, student teachers will be able to learn and use various kinds of pedagogical approaches to facilitate reading and writing in classrooms to sustain student teachers' 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 primary schools. Reading and writing have their inter-related connection in developing a child's knowledge and language skills. These two main skills are sustainable skills in a student teacher'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. Student teachers 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, student teachers 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 Tamil Character and Citizenship Education (Secondary)

Table 1: CS2 Tamil CCE Structure for BA/BSc (Ed) (TL)

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 taking Tamil Language & Literature 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 student teachers on the use of knowledge gained from moral literature in moral education through texts such as “Kondrai Venthan”, “Moothurai”, etc. They 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, student teachers will be able to mould useful citizens in classrooms.

ACK40B Character and Citizenship Education and Children Literature

The course aims to broaden student teachers' understanding on infusing the content knowledge from Children Literature in Character and Citizenship Education lessons. They will be exposed to various Children Literature texts such as children stories, poem songs, lullabies and nursery rhymes. Student teachers will be taught to infuse this knowledge purposefully in CCE lessons to enhance students' learning process. They will be studying literary texts written by Azha Valliyappa and stories from Thenali Raman stories and Peerbaal Stories series for this course.

Subject Knowledge

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

For Physical Education and Sports Science specialisation in the primary track, student teachers will offer SK subjects aligned with the CS2 and/or CS3 subjects and will read two to three SK courses per subject.

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

Music

For Music, Subject Knowledge is integrated with Curriculum Studies.

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 NIE Portal for the list of courses offered by semesters.
ASA10B is cross-listed with AAU28C and offered as a General Elective.

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, analyze 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 analyze 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.

Science

Table 1: For student teachers offering AS: Biology

Course Code	Title	Course Category	No of AUs	Pre-requisites
ASK40B	Topics in Biological Science for Primary Science Teaching	Core	3	-

Table 2: For student teachers offering AS: Physics

Course Code	Title	Course Category	No of AUs	Pre-requisites
ASK10B	Topics in Physical Science for Primary Science Teaching	Core	3	-

Table 3: For student teachers offering other AS

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 student teachers a geographical perspective towards citizenship education in the primary social studies curriculum. They will acquire conceptual knowledge of selected topics on the geography of Singapore and Southeast Asia that are linked to the primary social studies syllabus. Their learning will be supported with the use of maps, photographs and other geographical resources. Relevant field experience will be provided and they will have an opportunity to do a geographical inquiry project based on a current issue that Singapore faces.

ASL10B Disciplinary Foundations in Primary Social Studies: History

This course aims to provide student teachers with the skills and knowledge of the discipline of History that underpin the primary Social Studies curriculum. In this course, student teachers 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. Student teachers 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 Subjects

This area of study covers knowledge of the content and fundamental concepts and principles of either one or two subjects depending on the programme enrolled for.

In the case of a BA (Ed) (Primary) student teacher, the choice of the first Academic Subject must be an Arts subject while in the case of a BSc (Ed) Primary student teacher, the Academic Subject must be a Science Subject.

All BA (Ed) Secondary student teachers must read an Arts subject as Academic Subject 1 but can choose an Arts or Science subject as Academic Subject 2. Similarly, all BSc (Ed) Secondary student teachers must choose a Science subject as Academic Subject 1 but can choose an Arts or Science subject as Academic Subject 2. The lists of subjects for the different programmes are shown below. However, due to the nature of workload for some subjects, the subject combinations allowed will have to be necessarily limited.

BA (Ed) (Primary/Secondary): Academic Subjects

ACADEMIC SUBJECT	BA (Ed) (Primary)	BA (Ed) (Secondary)	
	AS	**AS1**	**AS2**
Art	√	√	√
Biology	X	X	√
Chemistry	X	X	√
Chinese Language*	√	√	X
Chinese Literature*	X	X	√
Drama	√	√	√
English Language	√	√	√
English Literature	√	√	√
Geography	√	√	√
History	√	√	√
Malay Language**	√	√	X
Malay Literature**	X	X	√
Mathematics	X	X	√
Music	√	√	√
Physics	X	X	√
Social Studies	X	X	√
Tamil Language***	√	√	X
Tamil Literature***	X	X	√

* Chinese Language and Chinese Literature must be offered as AS1 and AS2 together and not with another Academic Subject in both the primary and secondary specialisations.

** Malay Language and Malay Literature must be offered as AS1 and AS2 together and not with another Academic Subject in the primary specialisation. In the secondary specialisation, Malay Language must be offered as AS1 and Malay Literature as AS2. However, student teachers can opt to offer Malay Language as AS1 and any other Arts subject as AS2 but they will then not be considered as specialising in Malay Language.

*** Tamil Language and Tamil Literature must be offered as AS1 and AS2 together and not with another Academic Subject in both the primary and secondary specialisations. Student teachers taking Tamil Language & Literature will receive training in both Primary and Secondary tracks but will be certified only in the track assigned.

BSc (Ed) (Primary/Secondary): Academic Subjects

ACADEMIC SUBJECT	BSc (Ed) (Primary)	BSc (Ed) (Secondary)	
	AS	**AS1**	**AS2**
Art	X	X	√
Biology	√	√	√
Chemistry	√	√	√
Drama	X	X	X
English Language	X	X	√
English Literature	X	X	√
Food & Consumer Sciences	X	X	X
Geography	X	X	√
History	X	X	√
Mathematics	√	√	√
Music	X	X	√
PE and Sports Science	√	√	X
Physics	√	√	√
Social Studies	X	X	√

ACADEMIC SUBJECT: ART

Table 1: AS1 Art Structure for BA (Ed) (Primary 2 CS track) AS 1 Art Structure for BA (Ed) (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAA10A	Visual Literacy	Core	3	-
	AAA10B	Drawing (2D Studies 1)	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	-
	AAA40C	Academic Exercise: Art**	Core	6	-
	AAA40E	Major Studies (Exhibition)	Core	3	-
	AAA40G	Batik	Core	3	-

Please refer to the NIE Portal for the list of courses offered by semesters.
AAA30D and AAA40G is cross-listed with AAA28E and AAA18M respectively.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 2: AS 1 Art Structure for BA (Ed) (Primary 3 CS track)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAA10A	Visual Literacy	Core	3	-
	AAA10B	Drawing (2D Studies 1)	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	-
4	AAA40C	Academic Exercise: Art**	Core	6	-
	AAA40E	Major Studies (Exhibition)	Core	3	-

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 3: AS 2 Art Structure for BA/BSc (Ed) (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAA10A	Visual Literacy	Core	3	-
	AAA10B	Drawing (2D Studies 1)	Core	3	-
	AAA10C	Painting (2D Studies 2)	Core	3	-
	AAA10D	Sculpture (3D Studies 1)	Core	3	-

Please refer to the NIE Portal for the list of courses offered by semesters.

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 (2D Studies 1)

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 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 course 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. Student teachers will produce a body of work through which they will acquire working methods, research skills and knowledge necessary to successfully realize the full scope of their project. They will also continue to develop a critical awareness of contemporary and historical art issues and their 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.

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.

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 SUBJECT: BIOLOGY

Table 1: AS 1 Biology Structure for BSc (Ed) (Primary 2 CS Track) AS 1 Biology Structure for BSc (Ed) (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	-
	AAB40D	Academic Exercise – Biology**	Core	6	-

Please refer to the NIE Portal for the list of courses offered by semesters.

* AAB40B can be taken at Year 3 Semester 2.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 2: AS 2 Biology Structure for BA/BSc (Ed) (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	-

Please refer to the NIE Portal for the list of courses offered by semesters.

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 student teachers 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.

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 behaviour 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.

AAB40D Academic Exercise – Biology

This course exposes student teachers to all phases of the research process through inquiry-based learning strategies. These include the formulation of a research problem, setting of hypotheses, the design of experiments, data collection and analyses, and the discussion of results. This course provides opportunities for investigations in current research in the life sciences.

ACADEMIC SUBJECT: CHEMISTRY

Table 1: AS 1 Chemistry Structure for BSc (Ed) (Primary 2 CS Track)
AS 1 Chemistry Structure for BSc (Ed) (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	AAY20C, AAY20D
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
	AAY40B	Academic Exercise: Chemistry**	Core	6	-
	AAY40C	Materials Chemistry	Core	3	AAY10C, AAY20C
	AAY40D	Environmental Chemistry	Core	3	AAY10C, AAY20C, AAY30A

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 2: AS 1 Chemistry Structure for BSc (Ed) (Primary 3 CS Track)

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	AAY20C, AAY20D
3	AAY30A	Analytical Chemistry II	Core	3	AAY20B
	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	AAY40B	Academic Exercise: Chemistry**	Core	6	-
	AAY40D	Environmental Chemistry	Core	3	AAY10C, AAY20C, AAY30A

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 3: AS 2 Chemistry Structure for BA/BSc (Ed) (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	-

Please refer to the NIE Portal for the list of courses offered by semesters.

AAY10A Inorganic Chemistry I

This course aims to provide student teachers with a strong foundation in the fundamental concepts of general and inorganic chemistry that will enable them 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 student teachers 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 student teachers 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, ultra violet-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 student teachers to have a deeper understanding of inorganic chemistry taught in school. Laboratory experiments will be incorporated to develop technical skills related to contemporary organic 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, student teachers will acquire knowledge on the structure, bonding, reactions and reaction mechanisms of important classes of organometallic compounds. They 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.

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.

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 student teachers 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 student teachers.

ACADEMIC SUBJECT: CHINESE LANGUAGE

Table 1: AS 1 Chinese Language Structure for BA (Ed) (Primary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAC10H	Language Skills Enhancement: Writing	Core	3	-
	AAC10J	Language Skills Enhancement: Oral Communication	Core	3	-
	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	-
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	AAC40A	Academic Exercise - Chinese Language**	Core	6	-
	Select any 1 elective				
	AAC43A	Historical Linguistics	Pres	3	-
	AAC43B	Corpus Linguistics	Pres	3	-

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 2: AS 1 Chinese Language Structure for BA (Ed) (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAC10H	Language Skills Enhancement: Writing	Core	3	-
	AAC10J	Language Skills Enhancement: Oral Communication	Core	3	-
	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	-
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	AAC40A	Academic Exercise - Chinese Language**	Core	6	-
	Select any 2 electives				
	AAC43A	Historical Linguistics	Pres	3	-
	AAC43B	Corpus Linguistics	Pres	3	-
	AAC43D	Practical Writing in Chinese	Pres	3	-

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

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.

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 the 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.

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.

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 the 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.

AAC40A Academic Exercise - Chinese Language

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, setting of hypotheses, the design of experiments, data collection and analyses, 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.

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, you 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.

AAC43D Practical Writing in Chinese

This course equips student teachers with the written skills necessary for effective communication in Chinese in their professional interaction with colleagues, parents, general public as well as local and overseas counterparts. Student teachers will be engaged in the following practical writing tasks: writing of meeting minutes; writing of official letters such as letters to parents and letters of invitation; writing of

official emails; writing of project proposals and writing a speech.

ACADEMIC SUBJECT: CHINESE LITERATURE

Table 1: AS 2 Chinese Literature Structure for BA (Ed) (Primary) (Chinese)
AS 2 Chinese Literature Structure for BA (Ed) (Secondary) (Chinese)

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 NIE Portal for the list of courses offered by semesters.

AAJ10A Cultural China I: From Beginning to Tang

This course equips student teachers with a basic understanding of the development of Chinese literature from the beginning to Tang Dynasty. Taking a multidimensional perspective, they 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 their literature appreciation skills and their understanding of China within that historical period.

AAJ10B Cultural China II: From Song to Qing

This course equips student teachers with a basic understanding of the development of Chinese literature from Song to Qing Dynasty. Taking a

multidimensional perspective, they 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 their literature appreciation skills and their understanding of China within that historical period.

AAJ20A Cultural China III: Contemporary

This course equips student teachers with a basic understanding of contemporary Chinese literature with its socio-cultural environment. Taking a multidimensional perspective, student teachers 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 their literature appreciation skills and their understanding of contemporary China.

AAJ23A Selected Readings in Chinese Poetry

This course equips student teachers 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 student teachers with the ability to analyse and appreciate Chinese poetry independently.

AAJ23B Selected Readings in Chinese Prose

This course equips student teachers 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 student teachers with the ability to analyse and appreciate Chinese prose independently.

AAJ23C Selected Readings in Chinese Novel

This course equips student teachers 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 student teachers with the ability to analyse and appreciate Chinese novels independently.

AAJ23D Selected Readings in Chinese Drama

This course equips student teachers 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 student teachers 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.

ACADEMIC SUBJECT: DRAMA

Table 1: AS 1 Drama Structure for BA(Ed) (Primary 2 CS Track) AS 1 Drama Structure for BA(Ed) (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	-
	AAU40D	Academic Exercise: Drama**	Core	6	-

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 2: AS 1 Drama Structure for BA (Ed) (Primary 3 CS Track)

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	-
4	AAU40C	Research Frames in Theatre and Drama Education	Core	3	-
	AAU40D	Academic Exercise: Drama**	Core	6	-

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 3: AS 2 Drama Structure for BA/BSc (Ed) (Secondary Track)

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	-

Please refer to the NIE Portal 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.

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.

ACADEMIC SUBJECT: ENGLISH LANGUAGE

Table 1: AS 1 English Language Structure for BA (Ed) (Primary 2 CS Track)
AS 1 English Language Structure for BA (Ed) (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAE10A	Introduction to the Study of Language	Core	3	-
	AAE10B	Language in Context	Core	3	-
	AAE10C	Exploring the Grammar of English	Core	3	-
	AAE10D	Exploring the Words and Sounds of English	Core	3	-
2	**Select any 6 electives**				
	AAE23B	Perspectives on Pedagogical Grammar	Pres	3	-
	AAE23C	The Social Variation of Language	Pres	3	-
	AAE23E	Language Acquisition & Development	Pres	3	-
	AAE23G	Understanding Reading	Pres	3	-
	AAE23H	Understanding Writing	Pres	3	-
	AAE23K	The Role of Language in Education	Pres	3	-
	AAE23L	Analysing Text	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	-

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**				
	AAE43A	Systemic Functional Grammar	Pres	3	-
	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	-
4	AAE40A	Academic Exercise: English Language**	Core	6	-

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 2: AS 1 English Language Structure for BA (Ed) (Primary 3 CS Track)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAE10A	Introduction to the Study of Language	Core	3	-
	AAE10B	Language in Context	Core	3	-
	AAE10C	Exploring the Grammar of English	Core	3	-
	AAE10D	Exploring the Words and Sounds of English	Core	3	-
2	**Select any 6 electives**				
	AAE23B	Perspectives on Pedagogical Grammar	Pres	3	-
	AAE23C	The Social Variation of Language	Pres	3	-
	AAE23E	Language Acquisition & Development	Pres	3	-
	AAE23G	Understanding Reading	Pres	3	-
	AAE23H	Understanding Writing	Pres	3	-
	AAE23K	The Role of Language in Education	Pres	3	-
	AAE23L	Analysing Text	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	-
3	**Select any 2 electives**				
	AAE43A	Systemic Functional Grammar	Pres	3	-
	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	-

Cont'd

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
4	AAE30A	Research Methods	Core	3	-
	AAE40A	Academic Exercise: English Language**	Core	6	-

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 3: AS 2 English Language Structure for BA/BSc (Ed) (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAE10A	Introduction to the Study of Language	Core	3	-
	AAE10B	Language in Context	Core	3	-
	AAE10C	Exploring the Grammar of English	Core	3	-
	AAE10D	Exploring the Words and Sounds of English	Core	3	-

Please refer to the NIE Portal for the list of courses offered by semesters.

AAE10A Introduction to the Study of Language

This survey course offers an introduction to the study of language, of English, and of applied linguistics. It provides an overview of the major branches of language study, investigating the nature, history, and structure of English, and how language relates to the mind, society, and education. Connections between the various branches of language study are emphasised. The course provides the necessary disciplinary foundation and basis for further linguistic investigations in subsequent courses.

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.

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.

AAE23E Language Acquisition & Development

This course examines features, theories and issues of language acquisition and development. Student teachers 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 student teachers to make crucial decisions in future teaching.

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 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?

AAE23L Analysing Text

This course builds on student teachers' 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 equips student teachers with a set of analytical tools and metalanguage to help them critically examine various monomodal and multimodal types of texts, thereby providing them with a basis for interrogating how reality is represented in the world. In addition, student teachers will also be encouraged to think about how this perspective of texts can inform and influence their teaching in the classroom.

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.

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.

AAE40A Academic Exercise: English Language

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 AG, student teachers will select a topic and be matched with a research mentor.

AAE43A Systemic Functional Grammar

This course explores the structure of English in context. It introduces key concepts from Michael Halliday's systemic functional grammar and examines in detail the interpersonal, experiential, textual, and logical organization of texts. Through hands-on activities in the analysis of texts, this course will equip participants with an understanding of the structure, meaning and function of language in social context. It will also explore how a functional approach to language can be used to guide classroom language teaching.

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 analyze, 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.

ACADEMIC SUBJECT: ENGLISH LITERATURE

Table 1: AS 1 English Literature Structure for BA (Ed) (Primary)
AS 1 English Literature Structure for BA (Ed) (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	-
	AAR10C	Singapore and the Region in Literature	Core	3	-
	AAR10D	Reading Strategies	Core	3	-
2	**Select any 6 electives**				
	AAR23A	American Literacy 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	-
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	-

Cont'd

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
4	AAR40A	Academic Exercise: English Literature**	Core	6	-
	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 NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 2: AS 2 English Literature Structure for BA/BSc (Ed) (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	-
	AAR10C	Singapore and the Region in Literature	Core	3	-
	AAR10D	Reading Strategies	Core	3	-

Please refer to the NIE Portal for the list of courses offered by semesters.

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 student teachers to the traditional literary genres and some of the other modes of storytelling. Apart from the traditional genres—poetry, fiction and drama, other narrative modes include film, television, advertisements, and computer realizations of current events. This will help prepare student teachers to teach the various types of narrative structures they would have to deal with in the Literature classroom. The course will also focus on how to write an academic essay for Literature.

AAR10C Singapore and the Region in Literature

This course will explore cultural and historical connections and shared ethnic traditions in the literatures of post-independence South-east Asian nations and Singapore. Using translated works as well as writing in English, student teachers will look, for example, at the modern rewriting of Hindu and Malay myths in the region and examine the literary treatment

of immigrant identities. Other thematic concerns could include the modern woman's struggle against patriarchal cultures, poverty, war and the residual effects of colonialization, and constructs of modernity.

AAR10D Reading Strategies

Student teachers will be given a selected number of texts and taught how to subject them to multiple readings, using a variety of approaches. They 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. They may also learn how to disentangle the text's ideologies, its class and other affiliations, and read critically into its gaps and absences. Student teachers 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, student teachers 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 their education as teachers of Literature.

AAR23A American Literacy 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.

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.

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 AG, student teachers will select a topic and be matched with a research mentor.

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 analyzing 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 SUBJECT: FOOD AND CONSUMER SCIENCES

Table 1: AS 1 Food and Consumer Sciences Structure for BSc (Ed) (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
	AAQ40C	Academic Exercise: Family and Consumer Science**	Core	6	AAQ10, AAQ20 and AAQ30 Series
	AAQ40D	Clothing and the Consumer	Core	3	AAQ10C, AAQ20A, AAQ20D

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

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.

AAQ40C Academic Exercise: Family and Consumer Science

This course is designed to provide student teachers with the opportunity to complete a project or study that demonstrates their ability to analyze, 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.

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 SUBJECT: GEOGRAPHY

Table 1: AS1 Geography Structure for BA (Ed) (Primary 2 CS Track)
AS1 Geography Structure for BA (Ed) (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 Globalisation (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	-

Cont'd

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
4	AAG40A	Geographic Thought	Core	3	AAG10A AAG10B AAG10C
	AAG40B	Geographies of Sustainability	Core	3	-
	AAG40C	Academic Exercise: Geography**	Core	6	Student teachers must have done or be concurrently doing AAG40D
	AAG40D	Geographical Methods and Fieldwork	Core	3	Student teachers must have done at least one (1) Year 3 AAG course

Please refer to the NIE Portal 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. These courses will be cross-listed and offered as General Electives.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 2: AS1 Geography Structure for BA (Ed) (Primary 3 CS Track)

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 Globalisation (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 2 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	-
4	AAG40C	Academic Exercise: Geography**	Core	6	Student teachers must have done or be concurrently doing AAG40D
	AAG40D	Geographical Methods and Fieldwork	Core	3	Student teachers must have done at least one (1) Year 3 AAG course

Cont'd

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 3: AS 2 Geography Structure for BA/BSc (Ed) (Primary 3 CS Track) / (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	-

Please refer to the NIE Portal for the list of courses offered by semesters.

AAG10A Elements of Physical Geography

Global occurrences of natural phenomena and the physical environment associated with such events are the core topics in this course. 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 student teachers 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. Student teachers 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 globalised 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 student teachers to statistical and quantitative techniques commonly applied in geographical data analysis. Topics will progress from appropriate graphing methods to include basic summary statistics, probability theory, parametric and non-parametric hypothesis testing, correlation and regression. 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 student teachers 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 student teachers to how to think spatially by familiarizing them with the basic concepts and tools of Geographic Information Systems (GIS). It enables student teachers to display, analyze and manipulate spatially-reference information, and to better understand human-environment interactions.

AAG23J 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.

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 student teachers 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 the student teachers 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. Student teachers 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, student teachers 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 student teachers 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 actors 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 student teachers 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 student teachers to the practice, processes, and complexities in/of the urbanizing world and with specific focus on Asia.

Through the lens of everyday urban world, this course will seek to understand urban theories and concepts, various urban policies, their 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 teacher 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 student teachers deepen their understandings of geography through situating what they have learned so far in geography within the history of geographic thought. Student teachers will discuss why and how geography has evolved, with attention 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 student teachers 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.

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, student teachers will have a full understanding of how to undertake and successfully complete a field-based research project.

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 SUBJECT: HISTORY

Table 1: AS 1 History Structure for BA (Ed) (Primary 2 CS Track) AS 1 History Structure for BA (Ed) (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	-
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	AAH40A	Academic Exercise: History**	Core	6	-
	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 NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 2: AS 1 History Structure for BA (Ed) (Primary 3 CS Track)

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	-
3	**Select any 2 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	-
4	AAH40A	Academic Exercise: History**	Core	6	-
	AAH40B	Reading Sources: Evidence from the Past	Core	3	-

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 3: AS 2 History Structure for BA (Ed)/BSc (Ed) (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	-

Please refer to the NIE Portal 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, the course analyses the processes of 'doing' history and with that introduction and application of the critical skills necessary in nurturing and refining a historian's craft.

AAH10B Biography and History

The aim of this course is to teach student teachers 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 student teachers 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 student teachers with the critical stages in Singapore’s past, first as the port-city of Temasek, and then successively as an entrepôt port of the EIC, 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. The 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 student teachers 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 student teachers will be expected to make observations of the displayed artefacts in connection with the themes studied in the course. Student teachers 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.

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 will be explored 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, student teachers 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 student teachers 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 student teachers to interpret films in critical and analytical ways, as well as teaching student teachers how films are created. Thus, the course aims to make student teachers 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 student teachers 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, student teachers will examine case studies from China, Japan, Korea and Southeast Asia. Through these case studies, student teachers 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. Student teachers 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.

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, student teachers 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, student teachers 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 student teachers 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 student teachers 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 student teachers 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 student teachers 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. Student teachers 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, student teachers 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. Student teachers are expected to be able to appreciate and apply a diversity of evidence from text and fieldwork; as well as test his/her ideas in the presentation. Finally, student teachers 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 student teachers that while heritage is not history, it is another way of seeing the past. Student teachers are engaged in making practical assessments of historic landscapes and examining the heritage value of historical sites and landmarks. They do a major case study of a place that they consider to be of heritage value and how their own family history relates to that place. The significance and meaning of what constitutes heritage is covered. Student teachers 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 student teachers 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.

AAH40A Academic Exercise: History

This capstone course provides an opportunity for History student teachers 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. All student teachers will conduct their research under the direct supervision of a faculty member and they are expected to present their research findings in an in-class symposium and in a final thesis of not more than 10,000 words.

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 student teachers have acquired in previous courses through case studies of themes and topics to be decided in discussions between lecturer and student teachers. Student teachers 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 analyze 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. Student teachers 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, student teachers 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 student teachers 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 student teachers 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

This course will analyse the origins and evolution of the Vietnam (or the American) war as a national and international conflict of enduring interest. Ostensibly as a seminal tale of a smaller power defeating a superpower, the course will consider the major domestic and international factors that affected political and military decisions. Though the focus would be from the view of Washington, the perspectives of the Vietnamese (both North and South) would be considered at relevant points of the course. The Vietnam / American War course can complement earlier courses such as International History completed in previous semesters.

AAH43H Seminars on Historical Thought and Practice

This seminar course aims to provide student teachers with an understanding of selected issues in historical discourse and professional practice. In linking substantive historical knowledge with critical inquiries into the past, student teachers 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 analyze memories and representations of violent episodes in twentieth-century Asia. In particular, student teachers 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. Student teachers 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 SUBJECT: MALAY LANGUAGE

Table 1: AS 1 Malay Language Structure for BA(Ed) (Primary) (Malay)
AS 1 Malay Language Structure for BA(Ed) (Secondary) (Malay)

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	-
	AAD40D	Academic Exercise – Malay Language**	Core	6	-

Please refer to the NIE Portal for the list of courses offered by semesters.
AAD10B is cross-listed with AAD08A and offered as a General Elective.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

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 that includes the location of cultural hearths, the extent of cultural regions and the spatial diffusion of cultural groups. Student teachers 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 student teachers to the area of study concerned with the action and analysis relating to human intervention on language and language uses. Student teachers 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.

AAD40D Academic Exercise – Malay Language

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 AG, student teachers will choose a supervisor whose expertise matches with the topic he/she intends to research on.

ACADEMIC SUBJECT: MALAY LITERATURE

Table 1 AS 2 Malay Literature Structure for BA (Ed) (Primary) (Malay)
AS 2 Malay Literature Structure for BA (Ed) (Secondary) (Malay)

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 NIE Portal for the list of courses offered by semesters.

AAF10A Traditional Malay Literature

This course introduces student teachers 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 earliest to date. The role of Singapore as the regional publication, cultural and literary centre in the 19th century, major stages of literary movements before and after World Wars, and the emergence of new literature after Independence (1965) and its recent developments will also be discussed.

AAF10D Children's and Adolescents' Literature

This course explores the role and function of literature in children's and adolescents' psychological development. It exposes student teachers to the various styles, techniques and thematic conventions in children's literature. Student teachers will examine selected works and explore its application in school context.

ACADEMIC SUBJECT: MATHEMATICS

Table 1: AS 1 Math Structure for BSc (Ed) (Primary 2 CS Track) AS 1 Math Structure for BSc (Ed) (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAM10A	Linear Algebra I	Core	3	-
	AAM10B	Calculus I	Core	3	-
	AAM10C	Finite Mathematics	Core	3	-
	AAM10D	Number Theory	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	-
	AAM20G	Complex Analysis	Core	3	-
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	-
4	AAM40A	Academic Exercise: Mathematics**	Core	6	-
	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 NIE Portal for the list of courses offered by semesters

* Students reading AS Mathematics may replace one Year 4 course with one Year 3 course that they have not previously taken.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 2: AS 1 Math Structure for BSc (Ed) (Primary 3 CS Track)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAM10A	Linear Algebra I	Core	3	-
	AAM10B	Calculus I	Core	3	-
	AAM10C	Finite Mathematics	Core	3	-
	AAM10D	Number Theory	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	-
	AAM20G	Complex Analysis	Core	3	-
3	**Select any 2 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	-
4	AAM40A	Academic Exercise: Mathematics**	Core	6	-
	Select any 1 elective*				
	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 NIE Portal for the list of courses offered by semesters.

* Students reading AS Mathematics may replace one Year 4 course with one Year 3 course that they have not previously taken.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 3: AS2 Math Structure for BA/BSc (Ed) (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAM10A	Linear Algebra I	Core	3	-
	AAM10B	Calculus I	Core	3	-
	AAM10C	Finite Mathematics	Core	3	-
	AAM10D	Number Theory	Core	3	-

Please refer to the NIE Portal for the list of courses offered by semesters.

AAM10A Linear Algebra I

This first course in linear algebra aims to provide student teachers with the knowledge of basic set theory, linear systems, matrix algebra, determinant function, and vectors in 2-space, 3-space and general n-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, linear systems and solutions, Gauss-Jordan elimination, matrices and matrix operations, invertible matrices, methods of finding inverse of a matrix, determinant function and applications, vectors in 2-space and 3-space, dot product, cross product, equations of straight lines and planes, n-space, Cauchy-Schwarz inequality.

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 definitions. Topics covered include: Functions and graphs, limits of functions, ε-δ definition of limits, 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 (Rate of Change, Gradients of tangents and normal, Kinematics, Maxima and Minima, Analysis of Graphs of Functions), Riemann sums and Riemann integral, Antiderivative, Indefinite Integral Theorem and Fundamental Theorem of Calculus, Integration Techniques.

AAM10C Finite Mathematics

This core course aims to develop student teachers' mathematical problem solving skills by exposing them to a variety of counting problems and the principles and techniques used to solve them. It also aims to introduce student teachers to the fundamental concepts of discrete probability distributions. Topics covered include: Basic principles of counting, permutations and combinations, distributions, generalized permutations and combinations, Binomial Theorem and combinatorial identities, The Pigeonhole Principle, sample space and discrete probability distributions, conditional probability, independent events.

AAM10D Number Theory

The integers are the most fundamental objects in both school mathematics, as well as advanced

mathematics. This first course in number theory aims to introduce student teachers to fundamental properties of integers. A secondary objective is to introduce student teachers to mathematical reasoning and methods of proofs by using integers as a context. Applications of number theory, which relate to our everyday lives, will also be discussed. Topics covered include: Understanding mathematical statements, methods of proof including proof by contradiction and mathematical induction, divisibility, greatest common divisors, Euclidean algorithm, Diophantine equations, primes and the Fundamental Theorem of Arithmetic, congruences and the Chinese Remainder Theorem, applications of congruences to divisibility tests and check digits. Fermat's Little Theorem and Euler's generation.

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).

AAM20G 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.

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 applying 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.

AAM40A Academic Exercise: Mathematics

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.

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.

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.

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.

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.

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.

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 cover briefly 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.

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.

ACADEMIC SUBJECT: MUSIC

Table 1: AS 1 Music Structure for BA (Ed) (Primary 2 CS Track) AS 1 Music Structure for BA (Ed) (Secondary)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAI10G	World Musics in Education	Core	3	-
	AAI10E	Foundations in Music Education	Core	3	-
	AAI10H	Foundations in Music Studies I	Core	3	-
	AAI10J	Instrumental Studies 1	Core	1	-
	AAI10K*	Junior Recital	Core	2	AAI10J
	AAI10L	Baroque and Classical Musical Practices	Core	3	-
2	AAI20K	ICT and Music Education	Core	3	-
	AAI20B	Studies in Popular Musics	Core	3	-
	AAI20J	Composing and Arranging	Core	3	-
	AAI20G	World Music in Education II	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	-
3	AAI30B*	Senior Recital	Core	2	AAI10K*
	AAI30C	Foundations in Music Studies III	Core	3	AAI20H / AAI20L
	Select any 1 elective				
	AAI33A	Studies in Jazz (including Ensemble Studies)	Pres	3	-
	AAI33C	Musical Behaviours (including Ensemble Studies)	Pres	3	-
	AAI33G	Composing	Pres	3	-
	Select any 1 elective				
	AAI33B	Analysis in Music	Pres	3	-
	AAI33H	Ethnomusicology	Pres	3	-
	AAI33J	Conducting	Pres	3	-
4	AAI40B	Philosophy and Music Education (including instrumental studies)	Core	3	-
	AAI40C	New Media and Music Education (including ensemble studies)	Core	3	-
	AAI40D***	Philosophy and Music Education	Core	2	-
	AAI40E	Popular Music in Education	Core	3	-
	AAI43G**	Academic Exercise	Core	6	-

* This course spans two semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

*** This course will commence in Jul 2023 and is for Jul 2020 intake onwards.

Table 2: AS 1 Music Structure for BA (Ed) (Primary 3 CS Track)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAI10G	World Musics in Education	Core	3	-
	AAI10E	Foundations in Music Education	Core	3	-
	AAI10H	Foundations in Music Studies I	Core	3	-
	AAI10J	Instrumental Studies 1	Core	1	-
	AAI10K*	Junior Recital	Core	2	AAI10J
	AAI10L	Baroque and Classical Musical Practices	Core	3	-
2	AAI20K	ICT and Music Education	Core	3	-
	AAI20B	Studies in Popular Musics	Core	3	-
	AAI20J	Composing and Arranging	Core	3	-
	AAI20G	World Music in Education II	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	-
3	AAI30B*	Senior Recital	Core	2	AAI10K*
	AAI30C	Foundations in Music Studies III	Core	3	AAI20H / AAI20L
	Select any 1 elective				
	AAI33A	Studies in Jazz (including Ensemble Studies)	Pres	3	-
	AAI33C	Musical Behaviours (including Ensemble Studies)	Pres	3	-
	AAI33G	Composing	Pres	3	-
4	AAI40B	Philosophy and Music Education (including instrumental studies)	Core	3	-
	AAI40D***	Philosophy and Music Education	Core	2	-
	AAI43G**	Academic Exercise	Core	6	-

Please refer to the NIE Portal for the list of courses offered by semesters.

* This course spans two semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

*** This course will commence in Jul 2023 and is for Jul 2020 intake onwards.

Table 3: AS 2 Music Structure for BA/BSc (Ed) (Secondary Track)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAI10G	World Musics in Education	Core	3	-
	AAI10E	Foundations in Music Education	Core	3	-
	AAI10H	Foundations in Music Studies I	Core	3	-
	AAI10J	Instrumental Studies 1	Core	1	-
	AAI10K*	Junior Recital	Core	2	AAI10J
	AAI10L	Baroque and Classical Musical Practices	Core	3	-

* This course spans two semesters.

AAI10G World Musics in Education

The course aims to give a broad and general introduction to the subject of ethnomusicology with a strong emphasis on school-based music curriculum. This course will also focus on the music and culture of Singapore as a rapidly changing cosmopolitan society.

AAI10H Foundations in Music Studies I

This is the first of three foundational courses aimed at providing conceptual and skills grounding for the study of musics across different traditions and for music writing. You will be introduced to key concepts to help you develop an informed understanding and cross-cultural sensitivity for the study of musics across different traditions, styles and genres. You will also develop your foundations in harmony and counterpoint for music writing, not confined to Euro-American art music styles.

AAI10E Foundations 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.

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 using both MIDI and audio recording and pre-recorded loops. They will be taught how to edit,

mix and master the resulting tracks. The use of music applications for mobile devices, tablets and smart-phones will be introduced. Schemes of work to integrate these programmes into the music teaching and learning will be considered.

AAI20B Studies in Popular Musics

Through this course, student teachers will gain a clear understanding of what is meant by popular musics and their significance in music education. The course will focus mainly on the development of popular music since the 1950s from its European and Anglo-American roots. It will trace the development of popular music in the 20th century from its European and Afro-American roots by exploring these musical genres – Rhythm and Blues, Soul, Blues, Rock & Roll, Rock, Fusion Rock, Heavy metal and standard top 40's Popular Music. The course will also examine the term "jam session" which is an important musical concept in the social learning of popular music. Parallels will also be drawn to the development of the Singaporean popular music scene.

AAI20J Composing and Arranging

This course aims to develop your skills in melody writing, arrangement, and composition structuring. Upon course completion, you will be able to compose and explain your composition tangibly through logical thinking instead of simply relying on inspiration – by analysing factors contributing to effective composition. The course cumulates in a recording of each student teacher's composition for their classmates to perform live.

AAI20G World Music in Education II

This fourth and final course in the series of musical practices prepares student teachers for a more advanced approach to learning musical practices from a culturally situated and practice specific context. This course introduces concepts in cultural theory, ethnomusicology, sociology, politics and anthropology through musical learning. More advanced performing and listening experience with regional and world music will be explored. This course examines the deeper consideration for the teaching of world music within the school curriculum. The relationship between the East and the West and cultural stereo-typing will be examined. The course explores the cultural misconceptions from early historical sources of musical and cultural misrepresentation. Group field work techniques and methodology in ethnomusicology will be developed and taught. An examination of Great Traditions and Little Traditions and their similarities and differences will also be explored within selected musical traditions. Universal aspects of music are perceived, re-examined and studied. The study of organology will be crucial to this course. There is a strong emphasis on practical and ensemble studies. Participation in TWO ensembles (20%) is required of each student teacher which is added into this course.

AAI20L Foundations in Music Studies II

This is the second of three foundational courses aimed at providing conceptual and skills grounding for the study of musics across different traditions and for music writing. You will be introduced to more complex musical organisation across various musical traditions. Music writing will include chromatic harmonies; two-

part writing will now emphasize greater style awareness.

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 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.

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.

AAI30C Foundations in Music Studies III

This is the final of three foundational courses providing conceptual and skills grounding for the study of musics across different traditions and for music writing. You will engage in understanding additional non-western traditions and more contemporary music styles. Set theory for the analysis of 20th-century and contemporary classical music will be introduced. For music writing, you will focus on more sophisticated two- and four-part writing.

AAI33A Studies in Jazz (including Ensemble Studies)

The African American culture contributed significantly to the development of the American musical landscape of the 20th century. Beginning with the rural blues, the music evolved into a variety of musical styles from rhythm and blues to eventually jazz. This study explores the development of traditional jazz in the early 20th century from its Afro-American roots. This course is largely a performance based course. Basic understanding on performing on the main musical instruments such as the piano/keyboard, guitar, drums and the bass will be introduced in the course. A selection of four to six pieces from standard jazz repertoire will be studied as set pieces. The main

activities in this course involve “learning to perform” within a group setting but with an educational setting as context for such collaborative work.

AAI33B Analysis in Music

This course builds on the music-theoretic foundations laid earlier. Whilst more advanced topics in music theory and analysis will be introduced, student teachers will be guided to explore their chosen topic more extensively, deeply and critically. They will also develop their analytical discourse skills. Ultimately, this course prepares student teachers who are interested in focusing on music analysis for their final-year academic exercise.

AAI33C Musical Behaviours (including Ensemble Studies)

A study of musical practices around the world with special emphasis on interdisciplinary perspectives such as philosophy, music education, analysis, sociology and the teaching and learning of the various musical traditions. This course also requires student teachers to take up instrumental studies in the form of prescribed ensembles.

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.

AAI33G Composing

This course is designed to help student teachers who have an interest in composition to gain more depth and breadth in the subject matter. Building upon foundations laid in the Composing and Arranging course, this course begins with an examination of the development of compositional styles in the West from the past till the present. Common forms of cross-media composition are discussed, namely working with text and visual media. Lastly, the musical traditions of the different races in Singapore are dissected. Student teachers will try their hands on imitating different musical styles in composition. After experiencing various styles, student teachers will decide on a subject of personal interest and compose a piece for the semester.

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.

AAI40B Philosophy and Music Education (including instrumental studies)

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. A series of short synthesis papers provide feedback for student teachers to research and write in-depth about a philosophical topic of their choice.

AAI40C New Media and Music Education (including ensemble studies)

This course focuses on a knowledge and understanding of New Media appropriate for music education. The course is taught in a practical way with student teachers being given hands-on experience with opportunities to explore internet resources and applications for music teaching. Student teachers will be given the opportunity to explore Internet sites for music teaching and learning, together with the use of "streaming" video sites such as YouTube. The use of music applications for mobile devices, tablets and

smart-phones will be explored and considered. Ethical issues surrounding the use of contemporary music and media relevant to teachers will be explored. Schemes of work to integrate New Media into music teaching and learning will be considered.

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.

AAI40E Popular Music in Education

This course aims to examine and apply the fundamental concepts, ideas, and issues on popular music and culture towards classroom-based activities. Through this course, student teachers will be able to develop ways to deploy popular music in classroom teaching. "Learning to perform" popular music will be applied within the school context. Key musical features in popular culture will be studied, including

improvisation. The pedagogical value in popular music traditions will also be articulated and demonstrated in the course.

AAI43G Academic Exercise

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.

ACADEMIC SUBJECT: PHYSICAL EDUCATION & SPORTS SCIENCE

Table 1: AS 1 PE & Sports Science Structure for BSc (Ed) (Primary) (PESS)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	APA10A	Introduction to Physical Education & Sport	Core	2	-
	APA10B	Growth & Motor Development	Core	2	-
	APA10C	Anatomical & Biomechanical Foundations of Physical Activity	Core	3	-
2	APA20A	Foundations of Psychology & Motor Learning in Physical Activity	Core	3	APA10B
	APA20B	Physiology of Exercise	Core	2	-
3	**Select any 4 electives**				
	APA33A	Physiological Bases of Exercise	Pres	3	APA20B
	APA33B	Quantitative Methods in Biomechanics	Pres	3	APA10C
	APA33C	Psychology of Physical Education & Sport	Pres	3	
	APA33E	Sociology of Sport	Pres	3	-
	APA33G	Management of Sport Organisations	Pres	3	-
	APA33Q	Motor Control and Learning: Theory to Practice	Pres	3	APA20A
	Select any 3 electives				
	APA33D	Neuromuscular Control of Human Movement	Pres	3	APA20A
	APA33H	Applied Physiology of Exercise	Pres	3	-
	APA33J	Biomechanics in Sport	Pres	3	-
	APA33K	Applied Psychology of Physical Education & Sport	Pres	3	APA33C
	APA33L	Social History of Sport	Pres	3	APA33E
	APA33M	Event & Facilities Management in Sport	Pres	3	APA33G
4	APA40A	Assessment in Physical Education	Core	2	-
	APA40B	Academic Exercise: Physical Education**	Core	6	-

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 2: AS 1 PE & Sports Science Structure for BSc (Ed) (Secondary) (PESS)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	APA10A	Introduction to Physical Education & Sport	Core	2	-
	APA10B	Growth & Motor Development	Core	2	-
	APA10C	Anatomical & Biomechanical Foundations of Physical Activity	Core	3	-
2	APA20A	Foundations of Psychology & Motor Learning in Physical Activity	Core	3	APA10B
	APA20B	Physiology of Exercise	Core	2	-
3	**Select any 3 electives**				
	APA33A	Physiological Bases of Exercise	Pres	3	APA20B
	APA33B	Quantitative Methods in Biomechanics	Pres	3	APA10C
	APA33C	Psychology of Physical Education & Sport	Pres	3	
	APA33E	Sociology of Sport	Pres	3	-
	APA33G	Management of Sport Organisations	Pres	3	-
	APA33Q	Motor Control and Learning: Theory to Practice	Pres	3	APA20A
	Select any 2 electives				
	APA33D	Neuromuscular Control of Human Movement	Pres	3	APA20A
	APA33H	Applied Physiology of Exercise	Pres	3	-
	APA33J	Biomechanics in Sport	Pres	3	-
	APA33K	Applied Psychology of Physical Education & Sport	Pres	3	APA33C
	APA33L	Social History of Sport	Pres	3	APA33E
	APA33M	Event & Facilities Management in Sport	Pres	3	APA33G
4	APA40A	Assessment in Physical Education	Core	2	-
	APA40B	Academic Exercise: Physical Education**	Core	6	-

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

APA10A Introduction to Physical Education & Sport

This course emphasizes concepts related to the broad field of physical education and sport. It provides an overview of the disciplines that study the field's philosophical, historical, cultural, and sociological

foundations and their applications to professional practice.

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.

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.

APA33A Physiological Bases of Exercise

The aim of this lecture/laboratory course is to provide student teachers theoretical and applied knowledge and skills pertinent to understanding exercise physiology for health and performance. The laboratory techniques and field testing aim to assist student teachers in their understanding of the

demands of exercise on the body and provide them with knowledge to be able to prescribe appropriate exercise training for health and performance, with emphasis in school settings/paediatric populations as appropriate. The course will cover a variety of topics including energy systems, high intensity exercise, and recovery from exercise, thermoregulation and nutrition.

APA33B Quantitative Methods in Biomechanics

This course will introduce current quantitative methods in the biomechanical analysis of human movement. Student teachers will be provided with opportunities to gather experimental data and to examine kinematic and kinetic quantities of human movement through laboratory work.

Student teachers 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 use of such quantitative procedures will allow the student teacher to effectively analyse movement, explain causes of observed effects, and to remediate errors using a safe and scientific approach.

APA33C Psychology of Physical Education & Sport

This course is designed to provide student teachers with an understanding of conscious and non-conscious control, mental control (thought suppression and concentration) and how mental control is linked to motivation, and performance.

APA33D Neuromuscular Control of Human Movement

This course aims to provide student teachers with an understanding of the fundamental neurophysiological processes underlying the control of human movement and how these processes are studied. Specifically, the connections between brain functions and behaviour will be covered.

APA33E Sociology of Sport

The course focuses on cultural elements of the development of sport and physical activity in society today. The antecedents of today's sport and physical activity patterns are examined in relation to changes in value systems that have occurred with the passage of time. Ranging from the origins of the Olympic Movement in Ancient Greece to the spread of a colonial model by the British, this course provides a foundation for sport studies of systems in many countries.

APA33G Management of Sport Organisations

This course uses the essential topics and concepts of organizational theories and behaviors 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.

APA33H Applied Physiology of Exercise

The aim of this lecture/laboratory course is to provide student teachers theoretical and applied knowledge and skills pertinent to understanding exercise physiology and measuring of sports performance. The laboratory techniques and field testing aim will assist student teachers with understanding the demands of exercise on the body and provide them with knowledge to be able to assess sports performance in adults and in paediatric populations. The course will cover a variety of topics including measuring of high intensity and endurance exercise performance and examining and assessing the psychophysiological responses to muscular effort.

APA33J Biomechanics in Sport

The course consists of theoretical and experimental biomechanics, with a focus in sports. Student teachers are going to learn how to design a quantitative analysis, collect, analyse and interpret data obtained from the equipment associated with the measurement technique. From the analysis work of this course, student teachers are expected to examine the relationship between performance measure and human motor system.

Student teachers have the opportunity to explore the underlying processes that is involved in the production of movement in sports. The purpose of the course is to develop the student teacher’s ability to conduct biomechanical analysis independently and to apply the knowledge in teaching and coaching.

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.

APA33L Social History of Sport

The course focuses on cultural elements of the development of sport and physical activity in society today. The antecedents of today's sport and physical activity patterns are examined in relation to changes in value systems that have occurred with the passage of time. Ranging from the origins of the Olympic Movement in Ancient Greece to the spread of a colonial model by the British, this course provides a foundation for sport studies of systems in many countries.

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.

APA33Q Motor Control and Learning: Theory to Practice

The aim of this course is to provide student teachers 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.

APA40A Assessment in Physical Education

Assessment is an integral part of the teaching of Physical Education in Singapore. This course identifies the broad issues and strategies required for PE teachers to become effective assessors and recorders of students' learning in PE. This course is designed to provide student teachers with basic concepts of measurement and evaluation in physical education.

APA40B Academic Exercise: Physical Education

As part of NIE's curriculum, all PE student teachers are required to undertake a project supervised by academic staff. This project involves in-depth study, investigation and testing in any of the areas/courses offered on the programme. The student teacher is required to deliver a poster presentation at the end of the study and submit a formal report upon the completion of the project.

ACADEMIC SUBJECT: PHYSICS

Table 1: AS 1 Physics Structure for BSc (Ed) (Primary 2 CS Track)
AS 1 Physics Structure for BSc (Ed) (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
	AAP40C	Academic Exercise: Physics**	Core	6	AAP10A, AAP10B, AAP10C, AAP10D
	Select any 1 elective				
	AAP43D	Molecular Physics	Pres	3	AAP20C
	AAP43C	Nanoscience	Pres	3	AAP20G

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 2: AS 1 Physics Structure for BSc (Ed) (Primary 3 CS Track)

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	-
4	AAP40A	Nuclear Physics	Core	3	AAP20A, AAP20C
	AAP40C	Academic Exercise: Physics**	Core	6	AAP10A, AAP10B, AAP10C, AAP10D

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

Table 3: AS 2 Physics Structure for BA/BSc (Ed) (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	-

Please refer to the NIE Portal 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.

AAP40C Academic Exercise: Physics

Student teachers taking Physics as AS1 subject should be exposed to the various stages of research work to allow them to supervise and facilitate student projects in school and also 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.

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 tunneling microscopy and atomic force microscopy.

ACADEMIC SUBJECT: SOCIAL STUDIES

Table 1: AS 2 Social Studies Structure for BA/BSc (Ed) (Social Studies)

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 Identities in a Diverse World

This course provides student teachers 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 student teachers 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, student teachers 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 cosmopolitanism, class and gender.

AAL10C Singapore Studies

This course will introduce student teachers to a broad range of critical issues in the development of Singapore as a state and especially as a society. Our examination of the debates and controversies around these issues will lead to a deeper understanding of Singapore's past and present as we prepare for its

future. Considerable attention will be paid to the role of the dominant PAP government and its far-reaching policies, but the contributions of private citizens and groups will also be appreciated. The course will provide ample opportunities for student teachers to address our national conversations on democracy, citizenship, governance, nationhood and other key themes.

AAL10E Principles and Practices of Social Research

This course introduces student teachers 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. Student teachers are required to propose original social research questions and carry out empirical data collection to answer their questions. The course adopts a workshop approach such that at different stages of the research process, student teachers will share and learn from peers' research projects via presentations and discussions. The course aims to equip student teachers 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 student teachers 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.

ACADEMIC SUBJECT: TAMIL LANGUAGE

Table 1: AS 1 Tamil Language Structure for BA (Ed) (Primary) (Tamil)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	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	AAT20A	Tamil Language and Moral Literature	Core	3	-
	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	-
4	AAT40A	Tamil Diaspora Social Life and Language Use	Core	3	-
	AAT40C	Academic Exercise -Tamil Language**	Core	6	-
	AAT40D	Modern Tamil Literature (Prose)	Core	3	-

Please refer to the NIE Portal for the list of courses offered by semesters.

** This course spans two semesters. Student teachers should approach your respective academic groups for project details and the assignment of supervisors.

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 socio cultural 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.

AAT20A Tamil Language and Moral Literature

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 (பதிணென் கீழ்க்கணக்கு). You will be exposed to selected poems from Pathinenkilkanakku.

They will learn in depth about Thiruvalluvar, his school of thoughts and selected poems from Thirukkural (திருக்குறள்), a comprehensive manual of ethics. In addition, you will also learn about some of the literature written during this Period such as Naaladiyaa (நாலடியார்), Pazhamozhi 400 (பழமொழி நூனூறு) 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.

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. Student teachers 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. They will also deepen their 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. You will learn the concept of poetics and explain different types of poetry with illustrations. You will learn the main types of Anikal in Tamil through poetical and prose discourse. You will be introduced to all the six components of Anikal, namely Eluthu (letter), Acai, Ciir, Talai, Ati with appropriate structure and illustrations.

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. Student teachers 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 student teachers to the historical background of Tamils in different countries of migration. They will understand ways in which their language and culture were maintained. They will be introduced to concepts explaining the changes in Tamil language development. They will learn about the lifestyle of migrated Tamils in different areas and understand their culture, customs, habits, etc. Student teachers will also identify the changes found in the domains of their social life.

AAT40C Academic Exercise - Tamil Language

Tamil language teachers will be trained to use research procedure on undertaking Academic Exercise on Tamil language, literature and pedagogy. Student teachers will be taught on the various procedures of producing an Academic Article. The course will include various analysis methods such as qualitative analysis, quantitative analysis, research findings etc. Student teachers will also be taught on

the importance of writing Academic Article with components of Tamil Language, Education and Literature. Through these, student teachers will be able to conduct an academic exercise under the supervision of a faculty member.

AAT40D Modern Tamil Literature (Prose)

The new course aims to deepen the student teachers' 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.

ACADEMIC SUBJECT: TAMIL LITERATURE

Table 1: AS 2 Tamil Literature Structure for BA (Ed) (Primary) (Tamil)

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	AAK10A	History of Tamil Literature	Core	3	-
	AAK10B	Classical (Sangam) Literature	Core	3	-
2	AAK20A	Tamil Epic Literature 1	Core	3	-
	AAK20B	Tamil Epic Literature 2	Core	3	-
3	AAK30A	Devotional Literature and Minor Literary Genre	Core	3	-
	AAK30B	Modern Tamil Literature (Poetry)	Core	3	-
	AAK30C	Tamil Literary Criticism	Core	3	-
4	AAK40A	Singapore Tamil Literature	Core	3	-

Please refer to the NIE Portal for the list of courses offered by semesters.

AAK10A History of Tamil Literature

This course aims to provide deeper understanding of the history of Tamil Literature. You will also learn about the birth and 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, contribution of Jain and Buddhist and, modern Tamil language. While learning about India's Tamil literature, you will also learn about Singapore Tamil literature.

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

Student teachers will understand the history of Epic Literature of the medieval period. They will study the growth and development of Epic Literature, allowing them to know the sequences and the period in which these literatures were written.

Specifically, student teachers 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, student teachers 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 the student teachers' understanding of the two epics in the Tamil Literature - Kambaramaayanam & Periya Puraanam written by Kambar and Sekizhaar respectively. They will acquire the knowledge on the reasons for Kambaramaayanam to be a significant text in the Tamil Literature. In addition, student teachers will also study the selected songs in Periya Puraanam. Specifically, they will learn that despite being an adaptation of Vaalmigi Ramaayanam, Kambaramaayanam has established a place for itself. They will also learn that Kambaramaayanam is not only embraced in Tamil Nadu but has also spread to countries like Thailand and Indonesia. Student teachers will be able to identify that characterisation, dramatical structure and dialogues are the reasons for Kambaramaayanam's significance. Student teachers

will learn how Periya Puraanam depicts the devotion towards God. Student teachers will gain knowledge on the 63 devotees (Naayanmaargal) via the stories in the epic. They will also learn the lifestyle, usage of words and things used by these devotees. Through which, they will comprehend that devotion is based on good principles, sanity and sincerity.

AAK30A Devotional Literature and Minor Literary Genre

This course aims to provide student teachers with a broad understanding of Devotional Literature. The 2 genres are Tamil Devotional Literature and Minor Literary Genre (Sittrilakkiyam). Student teachers will be exposed to various texts in this genre. Through this, they 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. Student teachers will assess and analyse the texts, thus gaining an overview into the beliefs and importance of faiths in the past.

AAK30B Modern Literature (Poetry)

Student teachers will have a deeper understanding of Modern Literature, its brief history and the different genres of poems written by modern day poets. They will also learn selected poems from the works of notable poets such as Bharathiyaar, Bharathidhasan, Kannadhasan, Vaanidhaasan, and etc. Student teachers 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, they 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 student teachers to know about the struggles and the rise of the early Tamil settlers. Student teachers will read and analyse the poems written by writers such as Ulaganathan, Singai Mugilan, Paranan, and others. They will be studying short stories, novels and drama written by Ma. EllanKannan, Rama Kanabiran and P. Krishnan.

Essential Course

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
2	AMX20A	Multicultural Studies: Appreciating and Valuing Differences	Core	3	-

AMX20A Multicultural Studies: Appreciating and Valuing Differences

This course introduces you to the implications of living in a diverse society. Starting with identity formation for both the individual and for society, the course covers topics related to “race" and ethnicity, class, gender, and other social structures. In an increasingly complex world, understanding the dynamics suggested by multiracialism, multiculturalism and "cultural relativism" is an important step in gaining the necessary perspective of one's relationship to the Singaporean community, society and the larger world.

Language Enhancement and Academic Discourse Skills

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	ALS10A	Academic Discourse Skills	Core	3	-
	ALK10B	Communication Skills for Teachers	Core	2	-

ALS10A Academic Discourse Skills

In this course, we explore and study the practice and conventions of reading and writing in an academic setting. 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 look into how to produce the kinds of writing that are valued at the university. Specifically, our focus will be on critical reading and writing in an academic context as well as on conducting a mini-research project. 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; and
- 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.

ALK10B Communication Skills for Teachers

This is a practical course designed to provide student teachers with the oral and written skills necessary for effective communication as teachers in the classroom and in their professional interaction with colleagues, parents and the general public. Student teachers become more aware of the importance of considering the purpose, audience and context in communicating effectively to promote student learning. The course provides opportunities for hands-on practice of target skills in realistic school-based situations. As part of the learning process, student teachers have opportunities to practise good pronunciation, to understand effective voice production and to reflect and self-assess their application of the knowledge and skills that they acquire during the course.

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).

When the practicum is held in the Jun/Jul period (namely SE, TA and TP1) at the end of an academic year before the start of a new academic year, student teachers must register for the practicum course in Semester 1 of the new academic year (July rather than January's registration exercise). As such, registration for that practicum posting is done after it has been completed.

Practicum

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

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.

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.

General Electives

In addition to the core courses and the required number of prescribed electives, student teachers in the Secondary track must offer 6 AUs of general electives which can be chosen from subjects offered by the University, whether within or outside the Institute.

This section provides a list and description of the general electives offered in NIE.

Student teachers are responsible for ensuring that the courses they select do not clash on the class timetable and the examination timetable.

NIE also offers a suite of attractive Minors to equip students with multiple skills and broader knowledge, beyond what their major disciplines may provide.

List of Minors offered by NIE:

Minor Programme	Offered to Students of the Following Programmes
Drama and Performance	All except: NIE BA/BSc (Ed) & B Ed student teachers doing Drama as an Academic Subject.
Early Childhood Education	All students
Education Studies	All except: NIE BA/BSc (Ed) & B Ed student teachers

Minor Programme	Offered to Students of the Following Programmes
English Language	All except: NIE BA(Ed) and BSc(Ed) student teachers who are reading English Language as an Academic Subject (whether as AS1 or AS2) Linguistics & Multilingual Studies - LMS Psychology and Linguistics and Multilingual Studies - PSLM Minor in Linguistics and Multilingual Studies
Music	All students except NIE BA/BSc (Ed) & B Ed student teachers doing Music as an Academic Subject
Special Needs Education	All students
Youth Work and Guidance	All students
Science of Learning	All students

You may refer to the following website for more information on NTU/NIE minors: https://www.ntu.edu.sg/education/degree-programmes#Content_C109_Col03

General Elective: 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**	3	-
	AAA18E	Drawing	3	-
	AAA18G	Tabletop Game Design I	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	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	-
	AAA28L	Tabletop Game Design II	3	-
	AAA28M	Art and the Financial Markets	3	-
	AAA28Q	Interactive Art	3	-
	AAA28R	Ceramics I	3	-
	AAA28S	Ceramics II	3	-
	AAA28T	Performance Art	3	-

Please refer to the NIE Portal for the list of courses offered by semesters.

AAA08B, AAA08C, AAA08D, AAA18G, AAA18J, AAA18L, AAA28D, AAA28H, AAA28L, AAA28M, AAA28Q, AAA28S and AAA28T are cross-listed with AAA23B, AAA23C, AAA23D, AAA23G, AAA23H, AAA23J, AAA23L, AAA23M, AAA23N, 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 utilizes human nude models. Student's discretion is advised.

AAA08B Fashion and Design: Wearable Art as a Second Skin

Develop process skills in expression and visual articulation through the creation of wearable art works as a second skin. It is an initiation into fashion design and illustration world and will focus on the fundamentals of creating form, controlling volume and surface treatments for the body. Students of this hands-on class will experience illustrating their creations as well constructing their works to achieve a wearable art work.

AAA08C Expressive Drawing: Developing Personal Approach and Style

Students will learn a brief history of expressive style in drawing and will learn about current drawing practices in contemporary art. Through a self-guided library search they will find and explore and investigate the work of artists who use expressive drawing. This investigation will help students to develop and enhance their studio art-making experience and deepen their understanding of the role of drawing in human development and in art. Students will learn a variety of traditional and frequently used drawing techniques and materials used in past and current artworks. They will also decide upon and experiment with the use of alternative drawing materials. In consultation with the lecturer, students will decide to create either six small finished drawings or two larger finished drawings with accompanying preparation drawings, technique/material experiments and other evidence of their working process. The final artworks must utilize materials introduced at the beginning of the course and may incorporate alternative materials. Through the development and making process students will acquire working methods, research skills

and technical knowledge necessary to successfully realize their own uniquely expressive drawings. They will also develop an understanding of the importance of drawing in history and an awareness of its relevance in contemporary art issues.

AAA08D Abstract Painting: Why it's Here and How it's Made

Students will learn a brief history of abstraction in art and will learn about why abstraction continues as a form in contemporary art. Through a self-guided library search they will explore their own ideas and preferences as a means of developing and enhancing their studio art-making experience. Students will also learn basic painting techniques used in many abstract artworks and will learn about the use of alternative materials. In consultation with the lecturer, students will produce two major artworks with accompanying preparation drawings, paint technique experiments and other evidence of their working process. The final artworks must utilize paint, however, alternative materials will be allowed in conjunction with traditional painting techniques. Through the development and making process students will acquire working methods, research skills and technical knowledge necessary to successfully realize their own artworks. They 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

Introduction to drawing through an exploration of the figure in both traditional and contemporary frameworks.

AAA18E Drawing

Investigates the nature of drawing, from traditional art practice to the range of meanings drawing has in contemporary art.

AAA18G Tabletop Game Design I

This general elective introduces foundational mechanics in modern tabletop games and student teachers get an opportunity to apply them to create their own tabletop game, serving a variety of purposes from conceptual prototyping, entertainment, education, or simply as a form of personal expression and interactive art-making.

AAA18H Painting with Oil and Acrylic

This course introduces painting at a basic level.

1. Technical skills related to the pre-production, production and post-production of painting.
2. Understanding of the elements of art and principles of design.
3. Some historical references to the Fine Art Painting practice will be made.

AAA18J Painting with Watercolour

This course introduces painting at a basic level.

1. Technical skills related to the pre-production, production and post-production of silkscreen.
2. Understanding of the elements of art and principles of design.
3. Some historical references to Singapore water colour paintings will be made.

AAA18K Communication Design

This course introduces the study of communication design.

1. Technical skills related to the conceptualisation and visual articulation of signs, images, symbols and composition.
2. Understanding of the elements of art and principles of design.
3. Current and historical references to graphic design practice will be made.

AAA18L Silkscreen Printing

This course introduces silk screen printing at a basic level.

1. Technical skills related to the pre-production, production and post-production of silkscreen.
2. Understanding of the elements of art and principles of design.
3. Survey of graphic printing on paper and fabric.

AAA18M Batik

This course introduces Batik at a basic level.

1. Technical skills related to the pre-production, production and post-production of painting.
2. Understanding of the elements of art and principles of design.
3. To learn about the historical references of Batik in relation to regional culture.

AAA18Q Printmaking

This course is an introduction to artistic practices by exploring the processes of printmaking techniques through a self-thematic approach. The knowledge and skills acquired are largely generic within the contexts of printmaking to enable you to effectively apply techniques gained across a range of subject areas. You will be involved in the investigation and visualisation of images appropriate to mono- printing, relief printing, intaglio printing, and silkscreen printing.

AAA18R Sculpture

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

Introduction to contemporary art making with digital imaging tools. Participants will experience first-hand current art making methodologies through theme based works. The course will go through the processes of concept development, basic software tutorials, production and group critiques. Very basic knowledge of Adobe Photoshop and possession of any kind of Digital Still Camera is required.

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 (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

Introduction to the various art forms in Asia. Influences of historical background, philosophical beliefs and trade have on symbolism, forms and techniques of artistic practices.

AAA28H Traditional and Creative Chinese Painting

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 student teachers 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

Introduction to contemporary art making with digital video tools. Participants 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.

AAA28L Tabletop Game Design II

This general elective furthers the foundational game design mechanics from AAA18G TABLETOP GAME DESIGN I by allowing for additional mechanics, components and features that serve to increase the functionality, scope, re-playability and re-adaptability of an initial game design. Participants will broaden their knowledge and enrich their experience in table

top game design through the consideration of expansions to their base game.

AAA28M Art and the Financial Markets

The course will focus on the interface of art and finance, which includes financial instruments, such as art loans and art funds, designed to increase the fungibility of art. The involvement of large financial institutions as art sponsors and art collectors. The art and architecture of financial districts as material expressions of certain abstract ideals of the financial markets. Art that responses to the perceived power of the financial markets, including works created with visual technologies associated with financial trading, works intended to offer alternative ways of understanding financial data, and works designed to increase the observer's awareness of the importance of financial markets in society. Growing importance of the digital technologies in finance and art. The historical linkages between current practices of visualising financial data and art of the past.

AAA28Q Interactive Art

The course will encourage the exploration and making of Art and Interactivity through various technological tools.

Students 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 I

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 incorporated.

AAA28S Ceramics II

Intensive course which involves the development of skills and production of clay works through inquiry and the use of the potter’s wheel.

AAA28T Performance Art

This course introduces Performance Art at a basic level.

1. Awareness of and survey of performance art and its related disciplines of conceptual art, installation and sculpture.
2. Understanding of Audience participation and motivation.
3. Workshops on the use of the body as a medium for visual literacy.

General Elective: Chinese Language and Literature

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
Chinese Language and Literature	AAC18A	Chinese Calligraphy	3	#

Pre-requisites:
A1, A2, B3 or B4 in "AO" CL2 (or CL)
A1 or A2 in "O" Lvl CL1 (or HCL)
A, B, C, D or E in "A" Lvl CL2 or CL1 (or HCL)

(Student teachers specialising in Chinese are ***exempted*** from these pre-requisites)

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.

General Elective: 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	-

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.

General Elective: 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.

General Elective: 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	-
	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 NIE Portal for the list of courses offered by semesters.

AED28K, AED28L and AED28N are cross-listed with AED23B, AED23C and AED23G respectively see ES: Education Studies.

Cont'd

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 involves providing all students an opportunity to construct their understanding of people with special needs and their needs of support in education and in collaborating with their families and their schools. It is thus critical for all enrolled students to be present and to take part collaboratively to develop social-cultural understanding and insights on how best to support students with special needs in schools, home and society.

AED06A Special Needs Education and Inclusion

This course provides students a basic understanding of the main concepts of special needs education and inclusion. It is important that those working with individuals with disabilities or special needs gain foundational knowledge and understanding of special needs education and inclusion, particularly in the Singapore context. This course seeks to introduce students to the historical trends and contemporary issues concerning individuals with special needs/disabilities at the local as well as international contexts. Students will have the opportunity to learn how persons with different disabilities/special needs can be supported within school, home and community environments. Contemporary issues in special education and inclusive education that affect the knowledge, understanding and service provision for various disabilities/special needs in Singapore and elsewhere will be addressed. Students will also have the opportunity to clarify and affirm their values, beliefs, roles and responsibilities in serving the needs of persons with special needs.

AED06B Disabilities and Disorders

This course will examine the terms, difficulties, disabilities and disorders, used in describing diverse learning and behavioral challenges. The disabilities

and disorders covered in this course will be based on the 13 disability categories in the Individuals with Disabilities Education Act (IDEA) 2004 classification system. In this course, participants will learn the etiologies of the disabilities or disorders and their impact on the family and functioning of the individual in the various domains (e.g., language, physical, social interaction). The course will also suggest some of the necessary accommodations and the support in the classroom for the various disabilities. It will also include the services that are available in the community to support the individuals with various disabilities and disorders.

AED06C Inclusive Education: Teaching Strategies for Students with Special Educational Needs

This course examines issues related to the organization and practice of inclusive education for students with SEN/ disabilities. In this respect, it prepares student to work with students with special educational needs (SEN) whom they will have to support in their classrooms. In this course, the students will have the opportunity to explore the different models of inclusive education and the factors associated with its implementation. In particular, students will learn to plan and implement appropriate organizational and teaching approaches to enhance the educational and social inclusion of all students in their classrooms.

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.

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.

General Elective: English Language

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
English Language	AAE08A	The Language that Surrounds Us	3	-
	AAE08B	Born to Talk: Acquiring Language	3	-
	AAE18A	Introduction to the Study of Language	3	-
	AAE18B	Language in Context	3	-
	AAE18C	Exploring the Grammar of English	3	-
	AAE18D	Exploring the Words and Sounds of English	3	-
	AAE28A	Creative Writing	3	-
	AAE28B	Introduction to Children's Literature	3	-
	AAE28C	The Social Variation of Language	3	-
	AAE28D	Language Acquisition and Development	3	AAE18A
	AAE28E	The Role of Language in Education	3	-
	ACE48A	Teaching Grammar at the Secondary Level	3	-
	AGE08A	Digital and Media Literacy	3	-

Please refer to the NIE Portal for the list of courses offered by semesters.

AAE18A, AAE18B, AAE18C, AAE18D, AAE28C, AAE28D and AAE28E are cross-listed with AAE10A, AAE10B, AAE10C, AAE10D, AAE23C, AAE23E and AAE23K respectively.

AAE18A, AAE18B, AAE18C, AAE18D is offered to all student teachers, with the exception of BA(Ed) and BSc(Ed) student teachers reading English Language as an Academic Subject.

AAE28C, AAE28D, AAE28E is offered to all student teachers. BA(Ed) / BSc(Ed) student teachers reading English Language as an Academic Subject who have fulfilled their Prescribed Elective requirements for the programme are welcome to take AAE28C, AAE28D and AAE28E as Unrestricted 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.

AAE08B Born to Talk: Acquiring Language

Have you ever wondered how babies learn language?

This course examines the milestones for speech and language development. Students will look at the kinds of mistakes children make in their pronunciation, consider children's vocabulary development, and analyse morphological and syntactic features in child talk. The course will also be concerned with the different types of home literacy practices that can be employed to help a young child develop his/her listening, speaking, reading and writing skills.

AAE18A Introduction to the Study of Language

This survey course offers an introduction to the study of language, of English, and of applied linguistics. It provides an overview of the major branches of language study, investigating the nature, history, and structure of English, and how language relates to the mind, society, and education. Connections between the various branches of language study are emphasised. The course provides the necessary disciplinary foundation and basis for further linguistic investigations in subsequent courses.

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.

AAE28A Creative Writing

This course provides you with opportunities to write to develop their 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.

AAE28D Language Acquisition and Development

This course examines features, theories and issues of language acquisition and development. Students 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 students 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.

General Elective: English Literature

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
English Literature	ACR48A	Designing Literature Curriculum and Assessment	3	-

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.

General Elective: 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.

General Elective: 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 Globalisation	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 globalised 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 industries and has been considered as an economic development option by many developing countries. However, it is debatable 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

Conceptual and technical foundations of geographical information systems (GIS). Basic skills for collecting, storing, manipulating, analysing and presenting geo-spatial data and information. Urban and regional planning, natural resource management, environmental planning through the implementation of

modern GIS software. Hands-on practical exercises using GIS with real world data.

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 student teachers to the practice, processes, and complexities in/of the urbanizing world and with specific focus on Asia. Through the lens of everyday urban world, this course will seek to understand urban theories and concepts, various urban policies, their 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 teacher fieldwork will help in understanding classroom concepts and appreciate everyday Asian urbanism.

General Elective: History

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
History	AAH18A	Contemporary Singapore	3	Non-History Student Teachers
	AAH18C	Topics in Military History	3	-
	AAH18D	Film and Propaganda	3	-
	AAH28A	Introduction to International Relations	3	-
	AAH18E	Early Modern Asia	3	-
	AAH28C	Contemporary International History	3	-
	AAH28D	Women in History	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.

AAH18A Contemporary Singapore

Provides students unfamiliar with the history of Singapore with an overview of how our past is linked with our present. Topics covered include the founding of Singapore, growth of our port, origins of our plural society, the Japanese occupation, the conflicts of the tumultuous 1950s, merger and separation, and political and economic transformation after 1965.

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 student teachers 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 student teachers 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 student

teachers will be expected to make observations of the displayed artefacts in connection with the themes studied in the course. Student teachers 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.

AAH28A Introduction to International Relations

Basic introduction to international relations and key issues governing world politics. Emphasis is on three core international relations theories, namely: realism, liberalism, and Marxism. Key issues and theories are analysed in relation to past and current events, and in relation to the themes of conflict, change and cooperation.

AAH28C Contemporary International History

This course looks at some of the main controversies in twentieth century international history, right up to the present day. It will include aspects of international relations such as decision-making and the factors and processes that affect it, and clashes between ideologies and beliefs. Typical topics might include the origins of a war, the decision to drop the atomic bomb, the end of empire in a colony, an international or supranational organisation, the history of a current or recent conflict, terrorist groups, and recent American foreign policy. The unifying themes may vary according to recent events, so prospective students should refer to the HSSE website for current details.

AAH28D Women in History

Seeks to redress an imbalance in history by looking at "her-story." How women are viewed and written about will be examined through the use of secondary and primary sources such as newspapers, magazines, films, letters, memoirs and diaries. Themes and sample case-studies may be taken from a number of periods and places for comparisons of different traditions, cultures, and religions in order to examine how these affect the family, social, economic and political roles and contributions of women.

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.

General Elective: Malay Language and Literature

Category/ Subject	Course Code	Title	No. of AUs	Pre-Requisites
Malay Language and 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 BA(Ed)(Malay language) 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.

General Elective: 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 AS 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

This course aims to equip students 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.

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 new undergraduate students to learn university level mathematics courses. This course serves as a bridging course for Year 1 students taking mathematic as an academic subject to acquire enough foundational mathematics so that they 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.

General Elective: 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
	AAI16D	Studies in Popular Musics	3	-
	AAI16E	World Musics in Education	3	-
	AAI16G	Composing and Arranging	3	-
	AAI28C / AAI282	Percussion	3	-
	AAI28D / AAI283	Studies in Indonesian Gamelan I	3	-
	AAI28E	Studies in Free Improvisation	3	-
	AAI38A / AAI380	Studies in Indian Music	3	-
	AAI38B / AAI381	Studies in Japanese Music	3	-
	AAI38C	Classical Guitar I	3	-
	AAI38D / AAI383	Choir I	3	Audition
	AAI38E / AAI384	Choir II	3	Audition
	AAI38Q	Voice	3	-
	AAI38J	Band I	3	-
	AAI38K	Band II	3	-
	AAI38L / AAI389	Further Percussion	3	AAI282 or audition
	AAI38N / AAI391	Studies in Indonesian Gamelan II	3	-
	AAI38R	Conducting	3	-
	AAI387	Band I	3	-
	AAI388	Band II	3	-
	AAI48A / AAI480	Studies in Chinese Music	3	-
	AAI48B / AAI481	Studies in Malay Music	3	-
	AAI48C	Classical Guitar II	3	Audition
	AAI48D / AAI483	Choir III	3	Audition
	AAI48E / AAI484	Choir IV	3	Audition
	AAI48G	Studies in Pop and Jazz	3	-
	AAI48J	Band III	3	-
	AAI48K	Band IV	3	-
	AAI487	Band III	3	-
	AAI488	Band IV	3	-

Cont'd

Note: Students who wish to take up any Music General Elective 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 1950's, in collaboration with otolaryngologists at Syracuse University and the Massachusetts Eye and Ear Infirmary in Boston, he developed the 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 on 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 based course allows you the opportunities to explore recording and editing of 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.

AAI16D Studies in Popular Musics

Through this course, student teachers will gain a clear understanding of what is meant by popular musics and

their significance in music education. The module will focus mainly on the development of popular music since the 1950s from its European and Anglo-American roots. It will trace the development of popular music in the 20th century from its European and AfroAmerican roots by exploring these musical genres – Rhythm and Blues, Soul, Blues, Rock & Roll, Rock, Fusion Rock, Heavy metal and standard top 40's Popular Music. The module will also examine the term "jam session" which is an important musical concept in the social learning of popular music. Parallels will also be drawn to the development of the Singaporean popular music scene.

AAI16E World Musics in Education

The course aims to give a broad and general introduction to the subject of ethnomusicology with a strong emphasis on school-based music curriculum. This course will also focus on the music and culture of Singapore as a rapidly changing cosmopolitan society.

AAI16G Composing and Arranging

This course aims to develop your skills in melody writing, arrangement, and composition structuring. Upon course completion, you will be able to compose and explain your composition tangibly through logical thinking instead of simply relying on inspiration – by analysing factors contributing to effective composition. The course cumulates in a recording of each student's composition for their classmates to perform live.

AAI28C/ AAI282 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/ AAI283 Studies in Indonesian Gamelan I

This course enables you to come to an enjoyment of Indonesian gamelan music by listening to, playing and reflecting about 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/ AAI380 Studies in Indian Music

This is a practical-based course on South Indian classical and folk music. Through this course, you will acquire understanding of Indian musical practices and develop Indian vocal techniques and learn songs from the Indian classical and folk repertoire.

AAI38B/ AAI381 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/ AAI383 Choir I

This course requires you to participate in the NIE Choir. It consists of a study of choral repertoire from all periods, concentration on vocal and choral techniques as related to musical styles, preparation and presentation of concerts.

AAI38E/ AAI384 Choir II

This course requires you to participate in the NIE Choir. It consists of a study of choral repertoire from all periods, 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 their 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 to analyze 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 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 1950's, in collaboration with otolaryngologists at Syracuse University and the Massachusetts Eye and Ear Infirmary in Boston, he developed the 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 course. 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/ AAI389 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/ AAI391 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.

AAI387 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 module. 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.

AAI388 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.

AAI48A/ AAI480 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/ AAI481 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, custom, 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 develop more advanced techniques in guitar performance and develop a broad classical guitar repertoire through performance opportunities. Further playing techniques such as tremolo, tambora, and harmonics will be taught. The course will also cover diminished, augmented, and suspended chords, as well as fingerstyle and ensemble playing.

AAI48D/ AAI483 Choir III

This course gives you 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, concentration on vocal and choral techniques as related to musical styles, preparation and presentation of concerts.

AAI48E/ AAI484 Choir IV

This course gives you 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, concentration on vocal and choral techniques as related to musical styles, preparation and presentation of concerts.

AAI48G Studies in Pop & Jazz

Through this course, you will acquire pop and jazz musical skills in this largely practical-based course. In the process, you will understand the development of popular music in the late 20th century from 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.

AAI487 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 module. 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.

AAI488 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 module. 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.

General Elective: Natural Sciences

Category/ Subject	Course Code	Title	No. of AUs	Pre-requisites
Natural Sciences	AGE08H	Marine Environmental Studies	3	-
	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	-
	AGE18N	The Integrated Nature of STEM: Implications for STEM Curriculum Design, Implementation and Evaluation	3	Student Teacher majoring in STEM- related programmes
	AGE18Q	Gender Issues in Science, Technology, Engineering and Mathematics (STEM)	3	-

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 Learning Science at Early Childhood

The aim of this course is to acquaint students with various theories and practices in general education, early childhood education, and the STEAM2 disciplines. In recent years, interdisciplinary education has been advocated in Singapore and globally so that learners will be equipped with diverse knowledge and skills to solve different kinds of real world problems. For educators to be able to deliver interdisciplinary knowledge and impart skills, they need to be knowledgeable about the theories and practices of diverse, specific fields. In this course, the students will learn about the curriculum framework and curriculum materials used in the Singapore preschool education. They will learn about the theories and practices in diverse STEAM2 disciplines so as to gain broad knowledge and skills in each discipline. They will also learn from practitioners with personal practical (tacit) knowledge about teaching young children. Then they will integrate these different knowledge and skill sets to develop a science teaching package with interdisciplinary focus suitable for teaching preschool children aged 5-6. Undergraduates interested in early childhood STEAM2 education may register for this course.

General Elective: 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 introduce students to a broad range of critical issues in the development of Singapore as a state and especially as a society. Our examination of the debates and controversies around these issues will lead to a deeper understanding of Singapore's past and present as we prepare for its future. Considerable attention will be paid to the role of the dominant PAP government and its far-reaching policies, but the contributions of private citizens and groups will also be appreciated. The course will provide ample opportunities for students to address our national conversations on democracy, citizenship, governance, nationhood and other key themes.

AAL28E 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 cosmopolitanism, class and gender.

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.

General Elective: 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.

General Elective: 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 analyzing the structural and functional organization of the brain, students will be more informed about popular myths 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 classroom practices, this course will provide students a theoretical basis 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, educators will be able to evaluate existing classroom management strategies and also to develop strategies to manage students' emotions and behavior in class.

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. On top of that, 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 affective and cognitive processes as well as social 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 the 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 designing of learning environments as well as modes of learning and assessment. Students interested in the understanding how educational technologies intersect with neuroscience would benefit from taking this course.

General Elective: Tamil Language and Literature

Category/ Subject	Course Code	Title	No. of AUs	Pre-Requisites
Tamil Language and Literature	AGT08A	Tamil Culture and Lifestyles through Movies	3	-
	AGT08B	Tamil Culture through Food and Festivals	3	-

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.