

Postgraduate Diploma in Education (PGDE) Programme Handbook

December 2016 Intake

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Oct 2016

ENQUIRIES

For enquiries on admission to initial teacher preparation (ITP) programmes offered by NIE, please email to:

nieadmtp@nie.edu.sg

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

<http://www.nie.edu.sg>

Because of the large number of candidates seeking admission, we regret that no telephone or personal enquiries will be entertained.

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

<http://www.moe.gov.sg/careers/teach/>

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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 offers a postgraduate teacher preparation programme leading to the award of the Postgraduate Diploma in Education (PGDE) of the Nanyang Technological University. The programme provides for specialisation in primary, secondary and junior college teaching. The December intake programmes offer specialisations in all subjects except in Physical Education.

This PGDE programme is administered by the Office of Teacher Education which is committed to nurturing tomorrow's educators.

Aims of PGDE Programme

The PGDE programmes aim to develop university graduates into autonomous thinking teachers. The programme design is underpinned by NIE's philosophy of teacher education—as embodied in the V³SK (Values³, Skills and Knowledge) Model—and NIE's GTC (Graduand Teacher Competencies) Framework.

Specifically, the programmes are designed to help student teachers understand and respect the teaching profession in the Singaporean educational context as they acquire

- the professional knowledge and understanding of learners, as well as of the teaching and learning processes;
- a broad range of pedagogical and other relevant skills to be effective educators; and
- the theoretical grounding and critical capacities to make pedagogical judgements and decisions in both the more immediate and the more distant future.

Graduands are expected to be

- passionate in their teaching;
- committed to the education of the whole child;
- guided by their professional ethos;
- creative in their pedagogies;
- reflective in their practice;
- civic-minded;
- global in outlook;
- resilient; and
- adaptable.

Duration of Programme

The PGDE programmes described in this handbook are 16 months long, spanning three semesters. They lead to the award of the Postgraduate Diploma in Education, with specialisation in primary, secondary or junior college teaching. These are further subdivided into "General", "Mother Tongue Language Specialisation", and, in the case of PGDE (Primary) programmes, also "Art Specialisation" and "Music Specialisation" tracks.

Under normal circumstances, the maximum candidature for the 16-month programme is two and a half years.

The Academic Unit System

The Institute adopts the Academic Unit System. Academic Units (AUs) are used to measure academic workload per semester and per academic year. The academic year is currently divided into two semesters. Each programme consists of a number of courses, each carrying a certain number of AUs.

The Academic Unit provides a consistent measure of the student teacher's academic workload related to both class attendance and independent preparation. Used to weight courses taught for the duration of one semester, each AU typically represents a total of 13 hours of lesson activities.

Academic Calendar

The 16-month PGDE programmes span three semesters:

December 2016 Intake

| | Dates of Orientation (O+) Teaching Weeks (TW) / Recess (R) / Vacation (V) | Dates of Revision / Examination / Compulsory Events | Dates of Practicum |
|--|--|---|---|
| PGDE (Pri/Sec/JC) (Dec 2016 Intake) | January Semester O+ : 05 Dec 2016 – 09 Dec 2016 TW: 12 Dec 2016 – 02 Jun 2017 R : 24 Dec 2016 – 01 Jan 2017 V : 03 Jun 2017 – 06 Aug 2017 | 27 May 2017 – 02 June 2017 | 27 March – 21 April 2017 (4 weeks of Teaching Assistantship) |
| | July Semester TW: 07 Aug 2017 – 01 Dec 2017 R : 30 Sep 2017 – 08 Oct 2017 V : 02 Dec 2017 – 31 Dec 2017 | 11 Nov 2017 – 17 Nov 2017 | NIL |
| | January Semester TW: 01 Jan 2018 – 16 Mar 2018 | | 02 January – 09 March 2018 (10 weeks of Teaching Practice) |

+ Orientation

Applications

Application through the Ministry of Education

Candidates can apply for entry into the Postgraduate Diploma in Education programme through the Ministry of Education, Singapore. Successful applicants will be under the employment of the Ministry, and will be sponsored by the Ministry. Successful applicants are first deployed to schools for a teaching stint as untrained teachers. This stint allows schools to assess the candidates' suitability for teaching, whilst allowing candidates to affirm their interest in teaching. Admission into NIE is subject to the Ministry's evaluation, which is in part based on the school's recommendation, on the one hand, and to the specialisation availability and student vacancies at NIE. Successful applicants will have to abide by the Ministry's terms and conditions. Application for admission must be made online through the Ministry of Education website at <http://www.moe.gov.sg/careers/teach>. Application periods are indicated on the website.

Entry Requirements for the PGDE Programme

To be considered for admission, applicants should have at least a degree from a recognised university.

Other special requirements include the following:

- GCE 'O' Level passes in English, Mathematics and any Science Subject for teaching general subjects at primary school level.
- An interest and ability in Physical Education and sports as well as pass a Physical Proficiency Test to teach Physical Education.
- A five-minute audition for applicants shortlisted to teach Music. The audition will include one or two prepared pieces amounting to between 3 and 5 minutes from any genre/style, sight-singing

and aural tests, simple harmonisation and improvisation of a melody on a piano.

- An art-focused interview for applicants shortlisted to teach Art.

Applicants may be required to sit for the Entrance Proficiency Test and other tests.

NO STUDENT TEACHER MAY PURSUE CONCURRENTLY ANY PROGRAMME OF STUDY AT ANOTHER INSTITUTION OF LEARNING WHEN ENROLLED AS A FULL-TIME STUDENT TEACHER AT THIS INSTITUTE.

Examinations, Assessment of Coursework & Practicum

Different modes of assessment have been built into the coursework. These include (practical) tests, assignments, project work, and examinations. Examinations will be held at the end of each semester. There are no supplementary examinations. No special examination will be held for student teachers who are not able to take any paper because of illness or other special reason. They will be allowed to take the examination only 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 Postgraduate Diploma in Education. Student teachers are not allowed to retake 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 Postgraduate diploma classification will be based on the CGPA student teachers obtain throughout their programme of study as well as performance in Practicum.

Grade Point Average (GPA) System

The Grade Point Average (GPA) system is applicable to all student teachers admitted to Year 1 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 abbreviations are also used, these will not be counted in the computation of the CGPA:

- * - Courses with Pass/Fail grading only
- IP - In-Progress
- ABS - Absent (with valid reason)
- DIST/CR/P/F - Distinction/Credit/Pass/Fail
(Grading for Practicum only)

- 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:

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

- 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 both be reflected on the transcript. Both grades will be counted in the computation of CGPA. No AU is earned for courses with an 'F' grade.
- 6 Student teachers are not allowed to repeat any courses taken except those with an '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.
 - 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 CCPA 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 by the end of the first week of the semester following the termination
- normally 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 The cut-off for PGDE classification is as follows:

| Class of Award | CGPA Range | Minimum Final Practicum Grade |
|----------------|-------------|-------------------------------|
| Distinction | 4.50 – 5.00 | Credit * |
| Credit | 3.50 – 4.49 | Pass * |
| Pass | 2.00 – 3.49 | Pass |

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

English Language Content Enhancement (ELCE)

All PGDE student teachers whose Curriculum Studies (CS) is the Teaching of English Language and/or General Paper are required by the Ministry of Education to complete a series of three English Language Content Enhancement courses. Student teachers in the PGDE Junior College programme who read English Language and/or General Paper will be required to take the first two ELCE courses but will be exempted from the third.

The English Language Content Enhancement (ELCE) programme is the result of a recommendation by the MOE's English Language Curriculum and Pedagogy Review for English Language. It is designed to benefit student teachers in two ways: to equip them with the content knowledge for teaching English confidently, and to enable them to understand the processes involved in developing, as well as enacting, an English language curriculum. ELCE is compulsory for all those listed above.

The Meranti Project

The Meranti Project is a personal and professional development programme specially tailored for student teachers. Through experiential learning, student teachers appreciate the value of social emotional learning by sharing their personal life stories and aspirations with their peers and discussing their opinions about their chosen career in an open and supportive environment. Through informal dialogue with veteran teachers and school students, student teachers learn firsthand from school teachers' experiences and student learners' perspectives.

At the end of the programme, student teachers will develop better self-awareness, a clearer idea of what Character and Citizenship Education (CCE) entails, and their role in nurturing CCE. They will also develop better ideas of working with diversity in the classroom, strategies for coping with being a teacher, and be affirmed in their choice of teaching as a career.

The Meranti Project is named after a rainforest tree which is native to Singapore and the region. This magnificent tree serves as a metaphor for the resilience that the programme seeks to build in student teachers.

Talks, Seminars, Workshops and Other Activities

During the period of training, student teachers are expected to participate actively in talks, seminars, workshops and other activities organised for them. These activities form an integral part of their teacher education.

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 their 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 will result in disciplinary action in accordance with the university guidelines. 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.

Academic Structure of Programme

Structure of PGDE Programme

Core Courses : Compulsory courses that must be passed to fulfil programme requirements;

Contents of Programme

The Postgraduate Diploma in Education programme comprises four main components of study:

- (a) Education Studies
- (b) Curriculum Studies
- (c) Practicum
- (d) Language Enhancement and Academic Discourse Skills (LEADS)
- (e) Subject Knowledge – applicable only for PGDE (Primary)
- (f) Knowledge Skills – applicable only for PGDE (Junior College)

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.

Curriculum Studies

Student teachers will specialise in teaching at the primary, secondary school or junior college level. These are designed to give student teachers the pedagogical competencies in teaching specific subjects in Singapore schools.

PGDE (Primary)

Student teachers in the General Track will specialise in two Curriculum Studies areas while the student teachers in the Specialisation Track focus on only one.

The following are the PGDE (Primary) (General) Curriculum Studies options:

- The Teaching of English Language
- The Teaching of Mathematics
- The Teaching of Social Studies
- The Teaching of Science

The following Curriculum Studies areas are for those specialising in the **Teaching of Chinese, Malay or Tamil Language at the Primary level**:

- CS1: The Teaching of Chinese/Malay/Tamil Language
- CS2: The Teaching of Character & Citizenship Education (Chinese/Malay/Tamil)

Those specialising in the **Teaching of Art or Music at the Primary level** will focus on only the named Curriculum Studies area.

PGDE (Secondary)

PGDE (Secondary) student teachers will specialise in teaching two subjects at the secondary school level.

The following are the PGDE (Secondary) Curriculum Studies options:

- The Teaching of Accounting
- The Teaching of Art
- The Teaching of Biology
- The Teaching of Chemistry
- The Teaching of Computer Applications

The Teaching of Design and Technology
The Teaching of Elements of Business Skills
The Teaching of English Language
The Teaching of English Literature
The Teaching of Food and Consumer Sciences
The Teaching of Geography
The Teaching of History
The Teaching of Lower Secondary Mathematics
The Teaching of Mathematics
The Teaching of Music
The Teaching of Physics
The Teaching of Social Studies

The following Curriculum Studies areas are for those specialising in the **Teaching of Chinese, Malay or Tamil Language at the Secondary level**:

CS1: The Teaching of Chinese/Malay/Tamil Language

CS2: The Teaching of Chinese/Malay/Tamil Literature

PGDE (Junior College)

PGDE (Junior College) student teachers will specialise in the teaching one subject at the Junior College level and one at the secondary school level. The two subjects will be the same with the exception of Economics and General Paper.

Practicum

Teaching practicum enables student teachers to put theory into practice. It prepares student teachers for the realities of teaching in schools.

The 16-month PGDE programme includes two school-teaching stints:

- i. Teaching Assistantship
- ii. Final Practicum

Language Enhancement & Academic Discourse Skills (LEADS)

This component is aimed at helping student teachers improve their use of oral and written language in teaching.

Subject Knowledge

Student teachers in PGDE (Primary) (General) and PGDE (Primary) (Art/Music) are required to take subject knowledge courses according to their Curriculum Studies areas. These courses help to strengthen the respective subject-content knowledge for primary school teaching.

Knowledge Skills

Student teachers in the PGDE (Junior College) programme are required to take Knowledge Skills courses to meet the additional demands of teaching at the Junior College level.

**PGDE Programme
Teaching at Primary Level**

Curriculum Structure

The curriculum structures for various strands of the PGDE (Primary) programme are shown in Tables 1, 2 and 3 below:

Table 1: Curriculum Structure of the PGDE (Primary) (General) Programme

| Category/ Subject | Course Code | Title | No. of AUs |
|---|----------------|---|---------------|
| EDUCATION STUDIES | | | |
| | QED50A | Educational Psychology: Theories and Applications for Learning and Teaching | 2 |
| | QED50B | Pedagogical Practices | 4 |
| | QED50C | Teacher-Student Relationship | 1 |
| | QED50D | Effective Parent Engagement for Teachers | 1 |
| | QED50E | Singapore Kaleidoscope | 2 |
| | QED50G | Technologies for Meaningful Learning | 2 |
| | QED50H | Professional Practice and Inquiry I | 0 |
| | QED50J | Professional Practice and Inquiry II | 1 |
| | QED50K | Teaching and Managing Learners at the Primary Level | 2 |
| | QED50L | The Social Context of Teaching and Learning | 1 |
| | QED50M | Character and Citizenship Education | 1 |
| | QED50N | Assessing Learning and Performance | 1 |
| | QED50P | Group Endeavours in Service Learning | 1 |
| CURRICULUM STUDIES AND SUBJECT KNOWLEDGE (any two as assigned) | | | |
| English Language** | QCE50D | Teaching English at the Lower Primary Level | 5 |
| | QCE50E | Teaching English at the Upper Primary Level | 4 |
| | QSE50C | Grammar | 2 |
| | QSE50D | Children's Literature | 2 |
| Mathematics | QCM50C | Teaching and Learning of Primary Mathematics I | 3 |
| | QCM50D | Teaching and Learning of Primary Mathematics II | 2 |
| | QCM50E | Teaching and Learning of Primary Mathematics III | 2 |
| | QCM50G | Assessment in Primary Mathematics | 2 |
| | QSM50C | Number Topics | 2 |
| | QSM50D | Geometry Topics | 2 |

cont'd

| | | | |
|---|-------------------|---|----|
| Science | QCS50D | Curriculum and Inquiry in Primary Science | 3 |
| | QCS50E | Assessment in Primary Science | 2 |
| | QCS50G | Pedagogies for Primary Science | 2 |
| | QCS50H | Informal Science Learning Environments for Primary Science | 2 |
| | QSS50C | Topics in Physical Science for Primary Science Teaching | 2 |
| | QSS50D | Topics in Biological Sciences for Primary Science Teaching | 2 |
| Social Studies | QCL50D | Teaching Social Studies in the Primary Classroom I | 3 |
| | QCL50E | Teaching Social Studies in the Primary Classroom II | 2 |
| | QCL50G | Fieldwork in Primary Social Studies | 2 |
| | QCL50H | Managing Diversity in Primary Social Studies | 2 |
| | QSL50C | Disciplinary Foundations in Primary Social Studies: Geography | 2 |
| | QSL50D | Disciplinary Foundations in Primary Social Studies: History | 2 |
| LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS (LEADS) | | | |
| | QLK50A / QLK50B * | Practical Pronunciation for Teachers | 1 |
| | QLK50C | Communication Skills for Teachers | 2 |
| PRACTICUM | | | |
| | QPR50A | Teaching Assistantship | 3 |
| | QPR50B | Teaching Practice | 10 |

Note: * QLK50A is offered to student teachers who will be teaching English language, while QLK50B is offered to student teachers who will be teaching English- medium subjects.

** Student teachers whose Curriculum Studies is the teaching of English Language are required to take English Language Content Enhancement (ELCE) courses. Description of ELCE is available on page 12.

**Table 2: Curriculum Structure of the PGDE (Primary)
(Chinese/Malay/Tamil) Programme**

| Category/ Subject | Course Code | Title | No. of AUs |
|---|----------------|---|---------------|
| EDUCATION STUDIES | | | |
| | QED50A | Educational Psychology: Theories and Applications for Learning and Teaching | 2 |
| | QED50B | Pedagogical Practices | 4 |
| | QED50C | Teacher-Student Relationship | 1 |
| | QED50D | Effective Parent Engagement for Teachers | 1 |
| | QED50E | Singapore Kaleidoscope | 2 |
| | QED50G | Technologies for Meaningful Learning | 2 |
| | QED50H | Professional Practice and Inquiry I | 0 |
| | QED50J | Professional Practice and Inquiry II | 1 |
| | QED50K | Teaching and Managing Learners at the Primary Level | 2 |
| | QED50L | The Social Context of Teaching and Learning | 1 |
| | QED50M | Character and Citizenship Education | 1 |
| | QED50N | Assessing Learning and Performance | 1 |
| | QED50P | Group Endeavours in Service Learning | 1 |
| CURRICULUM STUDIES (Select either Chinese, Malay or Tamil) | | | |
| Chinese | | | |
| Chinese Language | QCC50A | Introduction to the Teaching of Chinese Language: Process, Pedagogy and Techniques | 3 |
| | QCC50B | The Teaching of Language Knowledge in Chinese | 3 |
| | QCC50C | The Teaching of Language Skills in Chinese 1: Listening and Speaking | 3 |
| | QCC50D | The Teaching of Language Skills in Chinese 2: Reading and Writing | 3 |
| | QCC50E | Language Testing and Assessment | 3 |
| Character and Citizenship Education (Chinese) | QCZ50A | The Teaching of Character and Citizenship Education in Chinese Language Learning | 3 |
| | QCZ50B | Character and Citizenship Education and Chinese Language Learning for Culturally Diverse Students | 2 |
| | QCZ50C | The use of ICT in Character and Citizenship Education and Chinese Language Learning | 2 |
| Malay | | | |
| Malay Language | QCD50A | Foundations to Malay Language Teaching at the Primary Level | 3 |
| | QCD50B | Teaching Oral Communication in Malay at the Primary Level | 3 |

cont'd

| | | | |
|---|--------|---|----|
| | QCD50C | Teaching Reading and Writing in Malay at the Primary Level | 3 |
| | QCD50D | Assessments in Malay Language Teaching | 3 |
| | QCD50E | Use of Drama in Teaching Malay | 3 |
| Character and Citizenship Education (Malay) | QCZ50D | Teaching of Character and Citizenship Education (Malay) (Lower Primary) | 3 |
| | QCZ50E | Teaching of Character and Citizenship Education (Malay) (Upper Primary) | 2 |
| | QCZ50G | Assessments in Character and Citizenship Education (Malay) | 2 |
| Tamil | | | |
| Tamil Language | QCT50A | Teaching of Tamil Language | 3 |
| | QCT50B | Teaching of Reading and Writing Skills in Tamil Language | 3 |
| | QCT50C | Teaching of Listening and Speaking Skills in Tamil Language | 3 |
| | QCT50D | Language Testing and Assessments | 3 |
| | QCT50E | Teaching of Tamil Language through Tamil Literature | 3 |
| Character and Citizenship Education (Tamil) | QCZ50H | Introduction to Character and Citizenship Education: Content Curriculum Pedagogy and Assessment (Tamil) | 3 |
| | QCZ50J | Character and Citizenship Education and Children Literature (Tamil) | 2 |
| | QCZ50K | Character and Citizenship Education and Moral Literature and Assessment Methods (Tamil) | 2 |
| LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS (LEADS) | | | |
| All | QLK50C | Communication Skills for Teachers | 2 |
| Select the corresponding language | QLC50A | Use of Chinese in Teaching | 2 |
| | QLM50A | Use of Malay in Teaching I | 1 |
| | QLM50B | Use of Malay in Teaching II | 1 |
| | QLT50A | Use of Tamil in Teaching | 2 |
| PRACTICUM | | | |
| | QPR50A | Teaching Assistantship | 3 |
| | QPR50B | Teaching Practice | 10 |

Table 3: Curriculum Structure of the PGDE (Primary) (Art/Music) Programme

| Category/ Subject | Course Code | Title | No. of AUs |
|--|----------------|--|---------------|
| EDUCATION STUDIES | | | |
| | QED50A | Educational Psychology: Theories and Applications for Learning and Teaching | 2 |
| | QED50B | Pedagogical Practices | 4 |
| | QED50C | Teacher-Student Relationship | 1 |
| | QED50D | Effective Parent Engagement for Teachers | 1 |
| | QED50E | Singapore Kaleidoscope | 2 |
| | QED50G | Technologies for Meaningful Learning | 2 |
| | QED50H | Professional Practice and Inquiry I | 0 |
| | QED50J | Professional Practice and Inquiry II | 1 |
| | QED50K | Teaching and Managing Learners at the Primary Level | 2 |
| | QED50L | The Social Context of Teaching and Learning | 1 |
| | QED50M | Character and Citizenship Education | 1 |
| | QED50N | Assessing Learning and Performance | 1 |
| | QED50P | Group Endeavours in Service Learning | 1 |
| CURRICULUM STUDIES AND SUBJECT KNOWLEDGE (Select either Art or Music) | | | |
| Art | QCA50A | Concepts and Practices in Art Education | 3 |
| | QCA50B | Children and Adolescent's Artistic Development and its Implications for Teaching | 3 |
| | QCA50C | Curriculum and Assessment in Art | 3 |
| | QCA50D | Teaching of Art in the Classroom | 3 |
| | QCA50E | Visual Arts Education in Museums and Galleries | 2 |
| | QSA50A | Two Dimensional Exploration | 2 |
| | QSA50B | Three Dimensional Exploration | 2 |
| | QSA50C | New Media Exploration | 2 |
| | QSA50D | Visual Literacy | 2 |
| Music | QCI50B | Music Theory for a Multi-Cultural Music Curriculum | 3 |
| | QCI50C | Curriculum I - Theory and Practice of Music Education | 3 |
| | QCI50D | Curriculum II – Theory and Practice of Music Education II + Theory-Practice Link | 3 |
| | QCI50E | Repertoire Studies I (World Musics in Education) | 3 |
| | QCI50G | Repertoire Studies II (Euro-American Art Music and Music in Films) | 2 |

cont'd

| | | | |
|---|--------|---|----|
| | QSI50A | Classroom Pedagogies in Local Music 1 (Malay Music and Indonesian Gamelan) | 2 |
| | QSI50B | Classroom Pedagogies in Local Music 2 (Chinese and Indian Music) | 2 |
| | QSI50C | Popular Music and Creative Movement | 2 |
| | QSI50D | ICT and Music Education | 2 |
| LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS (LEADS) | | | |
| | QLK50B | Practical Pronunciation for Teachers | 1 |
| | QLK50C | Communication Skills for Teachers | 2 |
| PRACTICUM | | | |
| | QPR50A | Teaching Assistantship | 3 |
| | QPR50B | Teaching Practice | 10 |

Contents of Core Courses

Education Studies

| Course Code | Title | Course Category | No. of AUs | Pre-requisites |
|-------------|---|-----------------|------------|----------------|
| QED50A | Educational Psychology: Theories and Applications for Learning and Teaching | Core | 2 | - |
| QED50B | Pedagogical Practices | Core | 4 | - |
| QED50C | Teacher-Student Relationship | Core | 1 | - |
| QED50D | Effective Parent Engagement for Teachers | Core | 1 | - |
| QED50E | Singapore Kaleidoscope | Core | 2 | - |
| QED50G | Technologies for Meaningful Learning | Core | 2 | - |
| QED50H | Professional Practice and Inquiry I | Core | 0 | - |
| QED50J | Professional Practice and Inquiry II | Core | 1 | - |
| QED50K | Teaching and Managing Learners at the Primary Level | Core | 2 | - |
| QED50L | The Social Context of Teaching and Learning | Core | 1 | - |
| QED50M | Character and Citizenship Education | Core | 1 | - |
| QED50N | Assessing Learning and Performance | Core | 1 | - |
| QED50P | Group Endeavours in Service Learning | Core | 1 | - |

QED50A Educational Psychology: Theories and Applications for Learning and Teaching

This course provides the foundation for understanding the 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. Student teachers will synthesize and consolidate the key concepts learnt to establish explicit theory-practice links and analyse issues in authentic classroom scenarios. This enables the student teachers to leverage on the acquired theoretical-knowledge in order to make theory-based decisions for enhancing teaching and the design of learning experiences.

QED50B Pedagogical Practices

This course begins a few weeks after the start of the core course on classroom management for all student teachers. As this course is conducted in tandem with the student teachers' first teaching stint in school, it allows them to consolidate and explicitly link theory to practice, applying what they have already learnt in both courses on different classroom management theories, skills and strategies. More specifically, the student teachers will be exposed to various instructional approaches, and how differentiated instruction is carried out in a typical classroom. Discipline techniques such as managing disruptive students will also be taught in greater depth. This serves to help the teacher increase their students' engagement and enhance their academic skills and competencies, thus promoting Social Emotional learning at the same time. This course will allow student teachers opportunities to practice these skills during their first practicum stint and tutors will provide the support for the implementation of the skills as they return each week to their tutorials to discuss and share their experiences.

QED50C Teacher-Student Relationship

This course is designed for pre-service teachers to provide a foundation for the understanding of teacher-student relationship (TSR). The course will build on the psychosocial, emotional, moral and motivational theories learned in the core course 'Educational Psychology: Theories and Applications for Learning and Teaching' to foster positive TSR in the classroom. In the context of enhancing TSR, the role of teachers and essential characteristics of a caring teacher will be explored. The course will also provide avenues for student teachers to understand and assess student problems, and to apply basic skills and strategies to foster and enhance TSR.

QED50D Effective Parent Engagement for Teachers

This course will help student teachers to appreciate and understand the importance of creating partnerships with parents in order to enhance child outcomes in the long run. Student teachers will examine the diversity of family structures and parenting styles and how these may impact upon student attitudes and learning. Through seminar style classes, student teachers learn to acquire practical strategies to effectively manage home-school relationships in their role as teachers as well as to learn effective communication strategies that can build rapport and promote empathy between teacher, parent and child.

QED50E 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, student teachers 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.

Learning objectives will focus on three main course components:

- Singapore's Natural Heritage: Focus on Singapore's bio-diversity & natural landscapes;
- Singapore Society & Culture: Focus on Singapore society, culture & heritage;
- Singapore in the World: Study of Singapore's geo-political landscape.

Through a range of inquiry-based options, student teachers will have opportunities to develop appreciation and understanding of challenges, issues, and perspectives central to these three areas of study.

QED50G Technologies for Meaningful Learning

This course prepares student teachers to engage learners in 21st century meaningful/quality learning with the use of ICT. Student teachers will learn how to analyze the affordances of ICT for promoting relevant characteristics of 21st century learning. They will examine critical issues related to designing ICT-enhanced lessons, which involves creating authentic learning needs, helping learners to be engaged in self-directed and collaborative learning, and integrating appropriate instructional strategies for disciplinary ways of knowing. They will also consider cyber wellness issues to promote the responsible use of

technology. Student teachers will integrate their content, pedagogical and technological knowledge to design meaningful/quality ICT-enhanced teaching and learning activities.

QED50H Professional Practice and Inquiry I

This course provides the foundation for student teachers 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 student teachers to (i) explore and reflect on their beliefs as teachers, (ii) understand the process of inquiring into their teaching and (iii) articulate their growing understanding of what constitutes a 21st century educator pivoted on NIE's value-based V³SK framework.

QED50J Professional Practice and Inquiry II

This course builds on Professional Practice and Inquiry I. Embedded within the PPI course in the use of an e-Portfolio to facilitate student teachers' construction of their conceptual framework of learning and teaching. This course aids the aggregation and integration of student teachers' learning from the various courses in NIE to prepare them for their teaching practice. During teaching practice, the e-Portfolio facilitates student teachers' inquiry into their own practice with a focus on the Theory-Practice Nexus. In addition, student teachers articulate their growing understanding of what constitutes good teaching in relation to NIE's Graduand Teacher Competencies (GTC).

QED50K Teaching and Managing Learners at the Primary Level

Mainstream primary schools in Singapore attend to pupils 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 pupils' 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 pupils in order to establish a safe, supportive and productive classroom environment. Emphasis will be placed on the theory-practice link to strengthen competencies of student teachers with respect to 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.

QED50L The Social Context of Teaching and Learning

This course aims to promote deeper understanding about the socio-political development of the Singapore education system among pre-service teachers at the National Institute of Education. They will appreciate the functions of the education system in socializing citizens for economic, political and social roles in the context of a multi-ethnic and multicultural society. They will have the opportunity to understand the rationale of major education policies and new

government initiatives that impact the work of school leaders, teachers, students and other stakeholders in order to achieve the *Desired Outcomes of Education* laid out by the Ministry of Education. At the same time, they will be made aware of the diverse and multiple roles that are played by teachers in the education system. It is hoped that pre-service teachers will become aware of the challenges that teachers face when engaging in pedagogical developments and initiatives in schools, and be empowered to become innovative, effective and caring teachers. Pre-service teachers are encouraged to link the content learnt in this course to what they have learnt in other courses at NIE, as they discuss major challenges and issues in the Singapore education system.

QED50M Character and Citizenship Education

This course helps pre-service teachers to understand the key concepts and issues in Character and Citizenship Education (CCE) and get a good grasp of their roles in CCE in school. As schools play a nurturing role in the development of students, teachers have the responsibility to be aware of their professional commitments with regard to CCE: What roles do teachers play in the character development of students? What are the relevant attitudes, knowledge and skills that teachers should possess to enable them to contribute meaningfully to the character development of their students in schools? How should teachers introduce students to the notions of citizenship through citizenship education?

Hence, the CCE course will allow pre-service teachers in NIE to learn about character development, elements of citizenship, key approaches and pedagogies for CCE, as well as current MOE CCE

policy and curriculum. Furthermore, the course will emphasize the relevant knowledge and skills teachers will need in order to deliver the CCE curriculum. Pre-service teachers will learn about the policies associated with CCE and be given opportunities to discuss the implementation of CCE in their future roles as teachers.

QED50N 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 discussions on the different approaches to the use of assessment in education, namely assessment of, for and as learning.

QED50P Group Endeavours in Service Learning (GESL)

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 underserved communities. 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. GESL seeks to empower student teachers through a hands-on approach of finding out the needs of the community and serving them. 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 around us.

The Teaching of Art [For PGDE (Primary)(Art)]

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCA50A | Concepts and Practices in Art Education | Core | 3 | - |
| QCA50B | Children and Adolescent's Artistic Development and its Implications for Teaching | Core | 3 | - |
| QCA50C | Curriculum and Assessment in Art | Core | 3 | - |
| QCA50D | Teaching of Art in the Classroom | Core | 3 | - |
| QCA50E | Visual Arts Education in Museums and Galleries | Core | 2 | - |

QCA50A Concepts and Practices in Art Education

The course will examine how art practices have evolved over time. Issues that arise from these changes and developments will be discussed and student teachers have to reflect upon their own practices and relate them to the past, present and future of art education. The course will also examine how government policies and initiatives in the arts influence the teaching of art in local schools and beyond. This course will be integrated with the 4 weeks Teaching Assistantship.

QCA50B Children and Adolescent's Artistic Development and its Implications for Teaching

This course consists of introductions to classical and contemporary theories of children and adolescent development in the visual arts. This course will help student teachers understand the various theoretical frameworks and how these underpin particular approaches to pedagogy and classroom practices. Student teachers will learn to design meaningful art experiences for children and adolescents based on these understandings to promote learning in art. Student teachers 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.

QCA50C Curriculum and Assessment in Art

Student teachers will be introduced to key concepts in curriculum and assessment, and particularly in art education. Student teachers will be exposed to various curriculum models in art and evaluative instruments used in the field. Student teachers will develop competencies in designing art curriculum and programmes for schools while at the same time, be critical in examining and reflecting upon the various models and theories that they are adopting in their own curriculum design.

QCA50D 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, implementation of lesson and evaluation of students' learning. Student teachers will also be conscious of their own teaching approaches and be reflective about them.

QCA50E 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 student teachers conceptualise and develop innovative gallery-based resources for different levels of schooling. Fieldtrips will be conducted to the various local museums and

galleries.

The Teaching of Chinese language

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCC50A | Introduction to the Teaching of Chinese Language: Process, Pedagogy and Techniques | Core | 3 | - |
| QCC50B | The Teaching of Language Knowledge in Chinese | Core | 3 | - |
| QCC50C | The Teaching of Language Skills in Chinese 1: Listening and Speaking | Core | 3 | - |
| QCC50D | The Teaching of Language Skills in Chinese 2: Reading and Writing | Core | 3 | - |
| QCC50E | Language Testing and Assessment | Core | 3 | - |

QCC50A Introduction to the Teaching of Chinese Language: Process, Pedagogy and Techniques

This course covers the general principles in designing, implementing and managing a Chinese Language lesson at the primary level. Topics include: Basic elements of a language lesson; lesson planning; language pedagogy and basic teaching techniques; material analysis and adaptation. Theories discussed will be closely linked to practice.

QCC50B The Teaching of Language Knowledge in Chinese

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: Hanyu Pinyin (phonetic transcription system) and its teaching; teaching of Chinese characters; teaching of vocabulary; genre and text analysis and its teaching.

QCC50C The Teaching of Language Skills in Chinese 1: Listening and Speaking

This course equips student teachers with the pedagogical theory and knowledge to deal with the teaching of listening and speaking skills in 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 concept of listening, speaking and spoken interaction skills; the principles and strategies of teaching listening, speaking and spoken interaction; the methodologies in designing and developing listening, speaking and spoken interaction tasks and activities; as well as the strategies for monitoring, analysing and assessing the above mentioned skills.

QCC50D The Teaching of Language Skills in Chinese 2: Reading and Writing

This course equips student teachers with the pedagogical theory and knowledge to deal with the teaching of Reading and writing skills in 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 concept of reading, writing and written interaction skills; the principles and strategies of teaching reading, writing and written interaction; the methodologies in designing and developing reading, written and written interaction tasks and activities; as well as the strategies for monitoring, analysing and assessing the above mentioned skills.

QCC50E Language Testing and Assessment

This course introduces to student teachers the basic theory and practice of Chinese language testing and assessment. Topics include: principles and types of language testing and assessment; the framework of test task characteristics; designing, developing and administering language tests; constructing test tasks for syntax, vocabulary, phonology and the Chinese script; constructing test tasks for listening, speaking, reading and writing skills; analysing and interpreting test statistics.

The Teaching of Character and Citizenship Education (Chinese)

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCZ50A | The Teaching of Character and Citizenship Education in Chinese Language Learning | Core | 3 | - |
| QCZ50B | Character and Citizenship Education and Chinese Language Learning for Culturally | Core | 2 | - |
| QCZ50C | The use of ICT in Character and Citizenship Education and Chinese Language Learning | Core | 2 | - |

QCZ50A The Teaching of Character and Citizenship Education in Chinese Language Learning

This course provides an overview of the teaching of the Character and Citizenship Education (CCE) and whole school implementation of CCE. Topics include: structure of CCE curriculum in Singapore, syllabus and content of CCE lessons; process-based approaches to the teaching of CCE; formative assessment in CCE, selection and use of supplementary resources; observations and case-studies in schools to enhance the theory practice nexus.

QCZ50B Character and Citizenship Education and Chinese Language Learning for Culturally Diverse Students

This course discusses the learning needs of culturally diverse students in CCE and Chinese language classes. Topics include: understanding cross cultural differences and cross cultural communication; identifying learning needs; designing and developing effective classroom strategies to bridge learning gaps.

QCZ50C The use of ICT in Character and Citizenship Education and Chinese Language Learning

This course equips student teachers with the fundamental knowledge and skills to effectively integrate ICT in teaching CCE and Chinese. Topics include: the

theory and practice for the application of ICT in teaching CCE and Chinese; using ICT to promote self-directed learning and collaborative learning; ICT and assessment.

The Teaching of English Language

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCE50D | Teaching English at the Lower Primary Level | Core | 5 | - |
| QCE50E | Teaching English at the Upper Primary Level | Core | 4 | - |

Note: Student teachers who are taking English Language as their Curriculum Studies (CS) are required to undertake English Language Content Enhancement (ELCE) courses. Description of ELCE is available on Page 12.

QCE50D Teaching English at the Lower Primary Level

This course will equip student teachers with the knowledge of processes and strategies in the teaching of reading and writing mainly at the lower primary levels. Processes, strategies and activities for teaching oral communication skills in the primary classroom will also be explored to help develop speakers and listeners. Student teachers will learn the invaluable link between home, community and school for meaningful language learning. Student teachers will also learn how reading, writing and oracy can be integrated and taught beginning from the lower primary levels. Vocabulary and grammar will be taught in the context of reading and writing. In addition, student teachers will learn a variety of tools to monitor pupils' language skills for the purpose of improving teaching and learning. Links between theory and practice will be made as student teachers explore the applications of what is learnt and apply this to the school context. Student teachers will become familiar with some of the principles and processes of teaching and learning and the learning outcomes of the English Language Syllabus.

QCE50E Teaching English at the Upper Primary Level

This course will equip student teachers with the knowledge of processes and strategies in the teaching of oracy, reading and writing at the upper primary levels. Student teachers will also develop skills to teach grammar

and vocabulary explicitly at the upper primary. In addition, student teachers will learn a variety of tools to monitor pupils' language skills and for pupils to self-monitor their language skills for the purpose of improving teaching and learning. Student teachers will revisit some of the principles and processes of teaching and learning and become familiar with the learning outcomes in the English Language Syllabus for the upper primary levels.

The Teaching of Malay Language

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCD50A | Foundations to Malay Language Teaching at the Primary Level | Core | 3 | - |
| QCD50B | Teaching Oral Communication in Malay at the Primary Level | Core | 3 | - |
| QCD50C | Teaching Reading and Writing in Malay at the Primary Level | Core | 3 | - |
| QCD50D | Assessments in Malay Language Teaching | Core | 3 | - |
| QCD50E | Use of Drama in Teaching Malay | Core | 3 | - |

QCD50A Foundations to Malay Language Teaching at the Primary Level

This course has three main objectives: to help student teachers understand the principles and purpose of the Malay language curriculum that underlie the Malay language syllabus at the primary level; to introduce student teachers to the basic theories, concepts and methodology related to the teaching of the four language skills of speaking, listening, reading and writing to young learners; and to equip them with the basic requirements of designing a Malay language lesson plan.

QCD50B 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.

QCD50C Teaching Reading and Writing in Malay at the Primary Level

This course aims to help student teachers develop the knowledge of processes and strategies to teach reading and writing at the primary level. It will equip student teachers with an understanding of the five essential components of effective reading: phonemic awareness, phonics, fluency, vocabulary, and text comprehension. Student teachers will learn strategies for teaching of writing of fiction, non-fiction and multimodal texts. They will learn methods of monitoring and assessing the reading and writing of primary pupils, and how to address the needs of diverse and struggling readers and writers.

QCD50D Assessments in Malay Language Teaching

This course will introduce student teachers to the concept of testing and assessment. Basic concepts such as validity and reliability, objectivity and the construction and administration of test items and materials will be discussed. Authentic and alternative assessments, rubric design and their application in classroom settings with special emphasis on students' varied learning needs and styles will be shared.

QCD50E Use of Drama in Teaching Malay

This course aims to help student teachers make their classroom teaching more interesting and creative via drama techniques. It will equip student teachers with basic drama techniques that will motivate student participation as well as spark their interest in Malay language, literature and culture. Student teachers will also be taught the basics of incorporating drama in their language lesson, with an emphasis on the expressive aspects of the language, as well as using drama to infuse values in Malay language lessons.

The Teaching of Character and Citizenship Education (Malay)

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCZ50D | Teaching of Character and Citizenship Education (Malay) (Lower Primary) | Core | 3 | - |
| QCZ50E | Teaching of Character and Citizenship Education (Malay) (Upper Primary) | Core | 2 | - |
| QCZ50G | Assessments in Character and Citizenship Education (Malay) | Core | 2 | - |

QCZ50D 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.

QCZ50E 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.

QCZ50G Assessments 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

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCM50C | Teaching and Learning of Primary Mathematics I | Core | 3 | - |
| QCM50D | Teaching and Learning of Primary Mathematics II | Core | 2 | - |
| QCM50E | Teaching and Learning of Primary Mathematics III | Core | 2 | - |
| QCM50G | Assessment in Primary Mathematics | Core | 2 | - |

QCM50C Teaching and Learning of Primary Mathematics I

The main objective of this course is to equip pre-service teachers with a basic understanding of the learning theories that inform mathematics instruction as well as an overview of the Singapore Mathematics Curriculum. The course also seeks to develop the pre-service teachers as reflective teachers of mathematics. The content of this course includes learning theories, lesson planning, and teaching of mathematical topics: whole numbers, fractions, decimals, and percentages.

QCM50D Teaching and Learning of Primary Mathematics II

The main objective of this course is to promote the theory-practice nexus by providing opportunities for pre-service teachers to use pedagogical principles and theories to inform their planning and practice of mathematics classroom skills. The course also seeks to develop the pre-service teachers as reflective practitioners. The content of this course includes the role of ICT in mathematics education, and teaching of mathematical topics: geometry, measurement, and data representation and average.

QCM50E Teaching and Learning of Primary Mathematics III

The main objective of this course is to further promote the theory-practice nexus by providing opportunities for pre-service teachers to apply their pedagogical principles and theories to inform their planning and delivering of the mathematics lessons in the context of the real, complex, and interactive classrooms. Lessons will be extended to those that involve mathematical problem solving that promotes higher order thinking. The course further seeks to develop the pre-service teachers as reflective practitioners. The content of this course includes the teaching of mathematical problem solving, and teaching of mathematical topics: ratio, rate, speed and algebra.

QCM50G Assessment in Primary Mathematics

The main objective of this course is to provide pre-service teachers with an overview of assessment literacy for the primary mathematics classrooms: assessment of learning, with an emphasis on holistic assessment; assessment for learning, with an emphasis on diagnosis and remediation; and assessment as learning, with an emphasis on the metacognitive development of the learners. The content of this course includes both the construction of test items for pen-and-paper assessment as well as construction of other modes assessment tasks.

The Teaching of Music [For PGDE (Primary)(Music)]

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCI50B | Music Theory for a Multi-Cultural Music Curriculum | Core | 3 | - |
| QCI50C | Curriculum I - Theory and Practice of Music Education | Core | 3 | - |
| QCI50D | Curriculum II – Theory and Practice of Music Education II + Theory-Practice Link | Core | 3 | - |
| QCI50E | Repertoire Studies I (World Musics in Education) | Core | 3 | - |
| QCI50G | Repertoire Studies II (Euro-American Art Music and Music in Films) | Core | 2 | - |

QCI50B Music Theory for a Multi-Cultural Music Curriculum

This course aims to develop some essential theoretical understanding to help student teachers deal with the music-technical features – in respect to melody, harmony, rhythm, dynamics, timbre and texture (where applicable) – of different music traditions. This basic understanding is meant to undergird the designing of meaningful performing and creating lesson activities within a multi-cultural music curriculum. Whilst Western art music theory forms the basis of theoretical understandings here, other traditions (e.g. Chinese, Indian, Indonesian and Malay as well as popular musics) will be brought in selectively for comparative study purposes with the aim of sensitizing teachers to pertinent commonalities and differences across traditions. The mode of teaching adopted will have a strong practical dimension whereby theoretical concepts are learnt in part through singing and performing in ways authentic to the tradition involved.

QCI50C Curriculum I - Theory and Practice of Music Education

This course provides student teachers with a foundation about the rationale, advocacy and theory undergirding the teaching and learning of music. Common pedagogical

approaches for the primary music classroom such as Dalcroze, Orff and Kodaly will be explored and discussed. Philosophical underpinnings to music education such as those espoused by Estelle Jorgensen, David Elliot, Keith Swanwick, John Blacking and others will also be used to generate critical dialogue. Developmental trajectories of music learning for the child (singing, composing, improvising, instrumental playing, etc.) will also be examined alongside practical applications towards the design of workable lesson ideas and plans for the general music classroom.

QCI50D Curriculum II – Theory and Practice of Music Education II + Theory-Practice Link

This course provides student teachers with a detailed examination of the General Music Programme syllabus in Singapore schools and the sourcing/designing of appropriate resources and materials for classroom use. An emphasis would be placed on the designing of curriculum, scheme-of-work, lesson plans and considerations for summative and formative assessments. The course will also explore the teaching and learning of popular music in the general music classroom. This will include a critical examination and practical engagement of informal learning practices and its applicability (choice of instrumentation, space set-up, etc.) within the confines of the primary music classroom. A practicum component (T-P Link) is included in this module where student teachers will be required to reflect on their teaching experiences in school as critical dialogue.

QCI50E Repertoire Studies I (World Musics in Education)

This course offers student teachers an introduction to the music of the world (with greater emphasis on local and regional music cultures) and the varied role of music in differing societies. The lessons from these varieties of

culture and societies are contextualized for the general music classroom by modelling ways in which these world musics may be introduced to pupils in a practical and musical way. Student teachers will take on the designing of world music lesson packages with the local context in mind, emphasizing the facilitation of an informed 'audience listening' with an emphasis on practical engagement (performing, composing, improvising) with the music wherever possible.

QCI50G Repertoire Studies II (Euro-American Art Music and Music in Films)

This course offers student teachers an introduction to the music of the Euro-American art tradition and music for film and theatre which includes repertoire and rationales for the place of the Euro-American Art Music practice in the Primary Music Classroom. The practice of the Euro-American Art Music is embedded in the General Music Programme (GMP) for every school learner from age 7-14, draws on a correspondence with 21st Century Competencies in the Music Classroom revealed maintaining Singaporeans' commitment and connection to their roots in Singapore as an important agenda to be achieved through the GMP (2015) which seeks to appreciate Music from global cultures by being able to recognise, aurally, the music and traditional instruments from the Euro-American Art Music traditions, to come to understand the contexts and the background of the music in the above choice of cultures. Finally, it is important that the Euro-American art music practices are not seen as stand alone repertoire but also opportunities for learners to sensuously imbibe this practice and see within their own learning trajectories, opportunities for them to become participant in creating and performing platforms.

The Teaching of Science

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCS50D | Curriculum and Inquiry in Primary Science | Core | 3 | - |
| QCS50E | Assessment in Primary Science | Core | 2 | - |
| QCS50G | Pedagogies for Primary Science | Core | 2 | - |
| QCS50H | Informal Science Learning Environments for Primary Science | Core | 2 | - |

QCS50D Curriculum and Inquiry in Primary Science

The nature of science and scientific inquiry for young children will be the central guiding principles in this course. Beginning teachers will gain an overview of the aims, goals, and objectives of the primary science curriculum from the analyses of syllabuses, textbooks, and other curricular materials with respect to educational policies in Singapore. Drawing on contemporary theories of inquiry and research findings, various teaching methods and practices for inquiry will be taught through lectures, practical work, and observations of teaching.

QCS50E Assessment in Primary Science

The course provides instruction in assessment literacy in primary science. Formal/non-formal methods of assessment as well as the construction and analyses of tests, worksheets, and performance tasks will be taught. Learners will also know how to provide holistic and helpful feedback for diverse students in school.

QCS50G Pedagogies for Primary Science

This course introduces student teachers to innovative ways of teaching and learning science within the classroom through collaborative inquiry activities. Learners will also critically practice and reflect on their

teaching skills such as lesson opening and closing, explaining, managing tasks and group work, summarizing, questioning, and checking for understanding.

QCS50H Informal Science Learning Environments for Primary Science

This course introduces student teachers to the potential of informal learning environments in primary science through lectures and field trips. Major avenues of learning such as the use of structured venues, everyday life activities, science-related programs, and mass media will also be examined for providing high quality and engaging/applied learning experiences for young children.

The Teaching of Social Studies

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCL50D | Teaching Social Studies in the Primary Classroom I | Core | 3 | - |
| QCL50E | Teaching Social Studies in the Primary Classroom II | Core | 2 | - |
| QCL50G | Fieldwork in Primary Social Studies | Core | 2 | - |
| QCL50H | Managing Diversity in Primary Social Studies | Core | 2 | - |

QCL50D Teaching Social Studies in the Primary Classroom I

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 active and meaningful learning of Social Studies. Student teachers will be given opportunities to design unit and lesson plans focused on key concepts/generalizations and key questions. The various classroom-based instructional strategies to teach historical and geographical concepts and skills will be examined. Student teachers will also be given opportunities to reflect on the links between theory and practice.

QCL50E Teaching Social Studies in the Primary Classroom II

This course aims to provide student teachers with an understanding of how to organise their classroom for cooperative learning. It also seeks to equip them with the knowledge and skills to design meaningful assessment. Student teachers will also learn how to incorporate inquiry and discussions into their Social Studies lessons.

QCL50G Fieldwork in Primary Social Studies

Student teachers will learn how to apply their understanding of unit planning, inquiry and conceptual learning learnt in the previous Social Studies methods courses in planning and conducting an inquiry-based fieldwork at a site of their choice.

QCL50H Managing Diversity in Primary Social Studies

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.

The Teaching of Tamil Language

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCT50A | Teaching of Tamil Language | Core | 3 | - |
| QCT50B | Teaching of Reading and Writing Skills in Tamil Language | Core | 3 | - |
| QCT50C | Teaching of Listening and Speaking Skills in Tamil Language | Core | 3 | - |
| QCT50D | Language Testing and Assessments | Core | 3 | - |
| QCT50E | Teaching of Tamil Language through Tamil Literature | Core | 3 | - |

QCT50A Teaching of Tamil Language

The course aims to broaden student teacher's knowledge on the basic classroom teaching techniques in Tamil language such as lesson planning and effective lesson delivery. Besides this course focuses on enhancing student teachers' understanding on the teaching of Tamil phonemes effectively. The emphasis will be on the accurate pronunciation and intonation of Tamil phonemes. Student teachers will gain a better understanding on the lexical items and its usage in the teaching and learning of Tamil Language. They will also acquire the necessary skills to teach Tamil functional grammar such as tenses, nouns, singular & plural, verbs etc. at primary level. Student teachers will also gain a better understanding on the use of functional grammar and error analysis in the study of Tamil Language, Student teachers will also be taught on the various useful techniques in teaching Tamil phonemes and lexicons. Student teachers will also enhance their Tamil word processing skills. The course will also educate student teachers on teaching Tamil language through engaging activities such as games etc.

QCT50B Teaching of Reading and Writing Skills in Tamil Language

Besides providing an overview on the need to build reading and writing skills in pupils, the course is to broaden student teachers' knowledge on the various approaches that should be undertaken in classroom teaching and learning. Student teachers will gain a deeper understanding on the specific considerations when teaching writing skills to pupils. In specific, student teachers will gain insight in writing Tamil alphabets accurately at primary level. Student teachers will also study various approaches that will encourage creative writing skills in pupils. For example, jigsaw, brainstorm, summary writing, picture description, newspaper article, and title based writing assignments etc. Student teachers will also study ways in which they can encourage pupils to use idioms and proverbs at primary level. The course enlightens student teachers by teaching them the context in which an idiom or proverb will be used. Student teachers will also have a better understanding in building reading skills. Accurate intonation and pronunciation are a few of the various factors that will be taught in this course. They will understand the letters that needs to be stressed, the places of pauses etc. Student teachers will in specific study the various reading skills such as reading aloud, silent reading, deep reading and wide reading. Upon recognizing the need and methods of cultivating these skills in pupils, student teachers will also identify useful and creative ICT tools that may enhance teaching and learning.

QCT50C Teaching of Listening and Speaking Skills in Tamil Language

The course aims to broaden student teachers' knowledge on the various approaches in building listening and speaking skills in pupils at primary level. In specific,

student teachers will recognize the need for effective two-way communication. Student teachers will also have a deeper understanding on the need to cultivate these skills in learners. Additionally, the course aims to equip student teachers with useful and creative ICT tools to enhance teaching and learning. Besides knowing how to handle existing resources, student teachers will also acquire the skills to create meaningful resources and learning materials. Student teachers will also understand the emphasis on observation skills in pupils. For example, building the skill to observe and comprehend a picture or a text and communicate effectively.

QCT50D Language Testing and Assessments

Focusing on the various methods of assessments, student teachers will master the skills to conduct both formative and summative assessments effectively to check on pupils' understanding. Specifically, they will be able to differentiate formative and summative assessments. Student teachers will gain a better understanding on the selection of suitable comprehension passages. They will also acquire the skills to effectively set comprehension questions. For example, higher order questions, short answer questions, etc. Besides comprehension passage and questions, student teachers will acquire the skills to set MCQ questions effectively. They will also gain better understanding on the standardization process and methods in grading pupils' work. They will learn ways to assess pupils' reading, speaking and other skills. They will also gain the skills to assess credibility of question papers.

QCT50E Teaching of Tamil Language through Tamil Literature

The course will focus on the use of Tamil literature in teaching Tamil Language at primary level. In specific, Tamil poetry and proverbs at the primary level will be

included. Emphasis on moral and cultural values through teaching and poetry, anecdotes, stories and proverbs will also be given. Student teachers will learn ways in which proverbs could be delivered effectively.

The Teaching of Character and Citizenship Education (Tamil)

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCZ50H | Introduction to Character and Citizenship Education: Content Curriculum Pedagogy and Assessment (Tamil) | Core | 3 | - |
| QCZ50J | Character and Citizenship Education and Children Literature (Tamil) | Core | 2 | - |
| QCZ50K | Character and Citizenship Education and Moral Literature and Assessment Methods (Tamil) | Core | 2 | - |

QCZ50H Introduction to Character and Citizenship Education: Content Curriculum Pedagogy and Assessment (Tamil)

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, student teachers will have a deeper understanding of the MOE guidelines and expectations of a 21st century learner. Student teachers will be studying different pedagogical theories and the rationales behind them. Through this, student teachers will adopt new pedagogical methods to apply in their classroom teaching to enhance learning. The course will enlighten student teachers on the use of ICT in CCE Tamil Language. They will acquire the skills to identify ICT tools that will be relevant for classroom teaching and learning. To build on their skills, student teachers will study ways in which they can create innovative instructional materials. This will in return help to cultivate 21st century learner. Student teachers will also study the various assessment methods that are relevant in the teaching and learning of CCE.

QCZ50J Character and Citizenship Education and Children Literature (Tamil)

The course aims to broaden student teachers' understanding on infusing the content knowledge from Children Literature in Character and Citizenship Education lessons. Student teachers 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. Student teachers will be studying literary texts written by Azha Valliyappa and stories from Thenali Raman stories and the Peerbaal Stories series.

QCZ50K Character and Citizenship Education and Moral Literature and Assessment Methods (Tamil)

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. Student teachers 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 this content knowledge, student teachers will be able to mould useful citizens in classrooms. Student teachers will also study the various assessment methods that are relevant in the teaching and learning of CCE.

Subject Knowledge

ART [For PGDE (Primary)(Art)]

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|-------------------------------|-----------------|-----------|----------------|
| QSA50A | Two Dimensional Exploration | Core | 2 | - |
| QSA50B | Three Dimensional Exploration | Core | 2 | - |
| QSA50C | New Media Exploration | Core | 2 | - |
| QSA50D | Visual Literacy | Core | 2 | - |

QSA50A Two Dimensional Exploration

This course is an introduction to the techniques and technologies involved in Drawing and Painting from both observational and expressive perspectives. Student teachers will have an opportunity to learn about the tools used as well as develop process skills like responsiveness, comparison and reflection, that are involved in art making. This course will reinforce student teachers' existing knowledge and is designed to give them well rounded competencies in the two dimensional media.

QSA50B Three Dimensional Exploration

This course will provide primary student teachers with the opportunities to work in an extended, in- depth manner with aspects of three-dimensional studies. Student teachers will be able to learn a range of three-dimensional processes and techniques, including time-based and site-based installation works.

QSA50C New Media Exploration

This course introduces student teachers to foundational aspects of working with New Media technologies. It will equip student teachers with

fundamental and technical knowledge of and skills in digital camera handling. The course will also inculcate in student teachers the abilities to explore digital still-image making, digital videography and stop-motion animation photography, with emphasis on process skills such as narrative and sequencing that are important in new media studies.

QSA50D Visual Literacy

Visual images are ubiquitous in our society. They come in different forms, such as art, architecture, technical illustration, computer graphics and digital photographs. They perform different functions, from offering the viewer an aesthetic experience to providing entertainment, as well as communicating information. This course aims to familiarize student teachers with common modes of interpreting visual images. Using examples from wide-ranging historical periods and geographical locations, they will learn the fundamentals of relating the visual elements of an image to the context of its creation and reception. They will also gain an understanding of how visual images work in tandem with non-visual forms, such as the written text and sound, to generate meanings. The course will also explore how knowledge of Visual Literacy can contribute to the teaching of art in the primary school classroom.

English Language

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|-----------------------|-----------------|-----------|----------------|
| QSE50C | Grammar | Core | 2 | - |
| QSE50D | Children's Literature | Core | 2 | - |

QSE50C Grammar

This course introduces student teachers to the grammatical structures of the English Language, enabling them to understand the language requirements of the English Language Syllabus. It looks at how grammar works, and how words and larger constituents may be analyzed according to meaning, form and function. Student teachers will be equipped with grammatical knowledge required for effective classroom teaching and assessment.

QSE50D Children's Literature

This course will have two slants. Theoretically, the course will expose student teachers to various commendable children's books in different formats and genres. Pedagogically, teachers will learn how to maximize children's literature in order to expose our pupils to "a strong foundation and rich language for all" as stated in the 2010 English Language Syllabus.

Mathematics

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|-----------------|-----------------|-----------|----------------|
| QSM50C | Number Topics | Core | 2 | - |
| QSM50D | Geometry Topics | Core | 2 | - |

QSM50C Number Topics

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

QSM50D Geometry Topics

This course aims to equip the primary mathematics teacher with a deeper understanding of geometry and measurement topics in the primary mathematics curriculum. Topics are: Basic elements of geometry as study of space in 2 and 3 dimensions; Properties associated with parallel lines; Properties of geometrical figures; Similarity and Congruency; Measurement; Constructions and proofs; Motion geometry and symmetry; Tilings and nets.

Music

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QSI50A | Class Pedagogies in Local Music 1 (Malay Music and Indonesian Gamelan) | Core | 2 | - |
| QSI50B | Class Pedagogies in Local Music 2 (Chinese and Indian Music) | Core | 2 | - |
| QSI50C | Popular Music and Creative Movement | Core | 2 | - |
| QSI50D | ICT and Music Education | Core | 2 | - |

QSI50A Class Pedagogies in Local Music 1 (Malay Music and Indonesian Gamelan)

This course will enable student teachers to learn about the basic elements and concepts of Malay music and dance within the cultural context of Singapore. Student teachers are taught the basic playing techniques of the Malay framed drums, *kompang* and *rebana*, and the basic dance steps of common Malay dances like the *Zapin* and the *Joget*. Performance techniques will involve acquiring skills in interlocking rhythmic variations and doing group performances.

The course will also allow student teachers to be engaged in Indonesian gamelan music by listening to, playing and reflecting about its practice. This course introduces the basic playing techniques and song 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. Knowledge of traditional gamelan as well as the gamelan in contemporary Southeast Asia contributes to student teachers' 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.

QSI50B Class Pedagogies in Local Music 2 (Chinese and Indian Music)

This course will provide student teachers with practical experiences on both North and South Indian classical music within the cultural context of Singapore. The course will provide student teachers with a basic understanding of *raga* and *tala* and in the playing of the tablas, sitar and the use of Indian vocal techniques.

The course also enables student teachers to learn about the basic elements and concepts of Chinese music within the cultural context of Singapore. Students are taught the basics of performance on the guzheng in ensemble playing.

QSI50C Popular Music and Creative Movement

The course enables student teachers to learn about basic movement vocabularies through musical and improvisational activities. Student teachers will also learn about the basic elements of particular dance forms as it relates to musical concepts. Student teachers will plan instructional strategies relating to music and movement using suitable repertoire.

The course also provides practical experiences for student teachers in the setting up and exploration within a pop band context. This will include being exposed to the playing of the electric guitar, the bass, drum-sets, vocals (including beatboxing) and other instrumental combinations.

QSI50D ICT and Music Education

This course provides student teachers with an introduction to ICT teaching and learning for the music classroom.

Web-based (Web 2.0/3.0) and software resources (e.g. Acid Pro, Audacity, Cakewalk, Cubase, GarageBand, Finale, Sibelius) will be explored and discussed alongside the development of appropriate curriculum packages and teaching strategies that incorporate the use of ICT for the Primary General Music Programme (GMP).

Science

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QSS50C | Topics in Physical Science for Primary Science Teaching | Core | 2 | - |
| QSS50D | Topics in Biological Sciences for Primary Science Teaching | Core | 2 | - |

QSS50C Topics in Physical Science for Primary Science Teaching

This course deals with the theoretical and practical aspects of Physical Science topics from and beyond the current Primary Science Curriculum. Some of the topics covered include matter and materials, environment, forces and motion, forms of energy, energy conversions, heat, light, colour, magnetism and electricity.

QSS50D Topics in Biological Sciences for Primary Science Teaching

This course deals with the theoretical and practical aspects of the Biological Sciences curriculum in Primary Schools. The topics to be covered include basic biology, classification and diversity of organisms (reproduction and life cycles), structure and function of plant systems, structure and function of animal systems (with emphasis on the human body), ecology and environmental issues.

Social Studies

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QSL50C | Disciplinary Foundations in Primary Social Studies: Geography | Core | 2 | - |
| QSL50D | Disciplinary Foundations in Primary Social Studies: History | Core | 2 | - |

QSL50C Disciplinary Foundations in Primary Social Studies: Geography

This course aims to equip student teachers with an understanding of the importance of geographical understanding for citizenship education in Social Studies. They will gain knowledge of children and their geographical ideas and learn about the core geographical concepts in the primary social studies syllabus. They will acquire knowledge of selected topics on the geography of Singapore and Southeast Asia, and learn to use maps, photographs and other geographical resources. Field experiences will be provided and they will have an opportunity to do a geographical inquiry project on an issue that Singapore faces.

QSL50D Disciplinary Foundations in Primary Social Studies: History

This course aims to acquaint student teachers with an understanding of the disciplinary foundations of History that underpin primary Social Studies. It will also develop in them an understanding of the importance of historical understanding for citizenship education in Singapore. Student teachers will gain knowledge of overarching historical concepts and have experience in historical inquiry. At the same time, they will explore how children can learn such knowledge and skills. They will acquire knowledge of selected topics from the histories of Singapore, Southeast Asia and early world civilizations as

well as become cognizant of available historical resources that will enable them to meaningfully teach the primary school Social Studies curriculum.

Practicum

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|------------------------|-----------------|-----------|----------------|
| QPR50A | Teaching Assistantship | Core | 3 | - |
| QPR50B | Teaching Practice | Core | 10 | - |

Teaching Practicum is a very important component of the PGDE 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.

QPR50A Teaching Assistantship

The 4-week Teaching Assistantship provides student teachers with the opportunities to observe their Cooperating Teachers (CTs) teach and to reflect on the roles and responsibilities of a teacher. They will also be given the practical experience of helping their CTs plan lessons, prepare resources, manage pupils, and to do some assisted teaching. During the 4-week stint, the student teachers will return to NIE one day a week, and take part in facilitated discussions to help them better understand their role as teachers and strengthen their application of theory to practice.

QPR50B Teaching Practice

The Practicum comprises a 10-week Teaching Practice (TP), in which 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.

Language Enhancement and Academic Discourse Skills

Communication Skills for Teachers

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QLK50A | Practical Pronunciation for Teachers (for student teachers with Curriculum Studies: English Language or General Paper) | Core | 1 | - |
| QLK50B | Practical Pronunciation for Teachers | Core | 1 | - |
| QLK50C | Communication Skills for Teachers | Core | 2 | - |

QLK50A Practical Pronunciation for Teachers (for student teachers with Curriculum Studies: English Language or General Paper)

This course aims to strengthen EL student teachers' knowledge of phonetics and pronunciation in order to equip them to implement the MOE EL syllabus more effectively. It prepares them for their curriculum studies courses where knowledge about language is linked to classroom practice. Participants will be equipped with a better understanding of issues relating to pronunciation in Singapore and learn about resources to enhance their own pronunciation and to research issues their students may encounter. They will engage in a range of listening, speaking and reading activities to raise their awareness of the sounds, rhythm and stress patterns of English and of ways to express meaning. They will identify and compare significant pronunciation features of the English language varieties spoken in Singapore, develop the ability to differentiate between them, and learn about the target variety for oral communication in the classroom. Links will be made to the MOE syllabus at primary and secondary level to show how the content covered on the course relates to curriculum coverage and their students' needs.

QLK50B Practical Pronunciation for Teachers

The whole school approach to English emphasises the importance of all English-medium teachers providing good models of the target variety of spoken English. Participants will identify and compare the significant pronunciation features of the English language varieties spoken in Singapore, develop the ability to differentiate between them, and learn about the target variety for oral communication in the classroom. They will be made aware of how a teacher's pronunciation may impact his/her ability to deliver disciplinary content effectively to students, and will be introduced to a range of resources that will help them investigate language items specific to their own disciplines, such as the use of dictionaries to check the pronunciation of vocabulary related to their subject areas. With greater understanding of language related issues, student teachers will be in a better position to help their students develop in their spoken competence, and to encourage them to see the importance of speaking with accurate pronunciation and appropriate intonation during oral discussions or presentations in their content areas.

QLK50C 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. The 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 the opportunities to

practise good pronunciation, to understand effective voice production and to reflect on and self-assess their application of the knowledge and skills that they acquire during the course.

Use of Chinese in Teaching

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|--------------------|----------------------------|------------------------|------------------|-----------------------|
| QLC50A | Use of Chinese in Teaching | Core | 2 | - |

QLC50A Use of Chinese in Teaching

This course aims to equip student teachers with the essential knowledge and communication skills on the use of Chinese in teaching. Topics include: understanding the difference between Standard Chinese and Mandarin in Singapore; development of oral proficiency and use of Standard Spoken Chinese in the classroom and school environment.

Use of Malay in Teaching

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|-----------------------------|-----------------|-----------|----------------|
| QLM50A | Use of Malay in Teaching I | Core | 1 | - |
| QLM50B | Use of Malay in Teaching II | Core | 1 | - |

QLM50A Use of Malay in Teaching I

This course aims to develop student teachers' skills in using Malay for effective oral communication in primary schools. Emphasis will be given on proper pronunciation in Standard Malay and in formal settings.

Student teachers will be exposed to skills in reading aloud, spontaneous dialogue, giving instructions, questioning techniques, explaining concepts, lecturing and debating.

QLM50B Use of Malay in Teaching II

This course aims to sharpen student teachers' skills in developing their mastery as Malay Language teachers in primary schools. Student teachers will be given ample opportunities to apply their skills in effective essay and letter writing, report writing, as well as academic and creative writing.

Use of Tamil in Teaching

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--------------------------|-----------------|-----------|----------------|
| QLT50A | Use of Tamil in Teaching | Core | 2 | - |

QLT50A Use of Tamil in Teaching

The main objective of the course is to develop student teachers' oral and written communication skills. In specific, the course aims to develop their oral proficiency by mastering language accuracy and studying phonetics. Besides phonetics and language accuracy, student teachers will also master their communication skills for both within and beyond the classroom. Student teachers will master the basic concepts of writing and the various writing skills. These writing skills include essay writing, report writing, creative writing and other written communication skills that are necessary for various professional roles that teachers assume in Primary schools.

PGDE Programme
Teaching at Secondary Level

Curriculum Structure

The curriculum structures for various specialisations of the PGDE (Secondary) programme are shown in Tables 4 and 5 below:

Table 4: Curriculum Structure of the PGDE (Secondary) (General) Programme

| Category/ Subject | Course Code | Title | No. of AUs |
|---|----------------|---|---------------|
| EDUCATION STUDIES | | | |
| | QED52A | Educational Psychology: Theories and Applications for Learning and Teaching | 2 |
| | QED52B | Pedagogical Practices | 4 |
| | QED52C | Teacher-Student Relationship | 1 |
| | QED52D | Effective Parent Engagement for Teachers | 1 |
| | QED52E | Singapore Kaleidoscope | 2 |
| | QED52G | Technologies for Meaningful Learning | 2 |
| | QED52H | Professional Practice and Inquiry I | 0 |
| | QED52J | Professional Practice and Inquiry II | 1 |
| | QED52K | Teaching and Managing Learners at the Secondary/ Junior College Level | 2 |
| | QED52L | The Social Context of Teaching and Learning | 1 |
| | QED52M | Character and Citizenship Education | 1 |
| | QED52N | Assessing Learning and Performance | 1 |
| | QED52P | Group Endeavours in Service Learning | 1 |
| CURRICULUM STUDIES (any two as assigned) | | | |
| Kindly refer to pages 94 to 148 for the exact course codes and course titles | | | |
| | QCK | The Teaching of Accounting | 11 |
| | QCA | The Teaching of Art | 11 |
| | QCB | The Teaching of Biology | 11 |
| | QCY | The Teaching of Chemistry | 11 |
| | QCQ | The Teaching of Computer Applications | 11 |
| | QCN | The Teaching of Design and Technology | 11 |
| | QBS | The Teaching of Elements of Business Skills | 11 |
| | QCE** | The Teaching of English Language | 11 |
| | QCR | The Teaching of English Literature | 11 |
| | QCG | The Teaching of Geography | 11 |

cont'd

| | | | |
|---|-------------------|---|----|
| | QCH | The Teaching of History | 11 |
| | QCX | The Teaching of Food and Consumer Sciences | 11 |
| | QCD | The Teaching of Malay Language | 11 |
| | QCM | The Teaching of Lower Secondary Mathematics | 11 |
| | QCM | The Teaching of Mathematics | 11 |
| | QCI | The Teaching of Music | 11 |
| | QCP | The Teaching of Physics | 11 |
| | QCL | The Teaching of Social Studies | 11 |
| | QCT | The Teaching of Tamil Language | 11 |
| LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS (LEADS) | | | |
| | QLK52A / QLK52B * | Practical Pronunciation for Teachers | 1 |
| | QLK52C | Communication Skills for Teachers | 2 |
| PRACTICUM | | | |
| | QPR52A | Teaching Assistantship | 3 |
| | QPR52B | Teaching Practice | 10 |

Note: * QLK52A is offered to student teachers who will be teaching English language, while QLK52B is offered to student teachers who will be teaching English- medium subjects.

** Student teachers whose Curriculum Studies is the Teaching of English Language are required to take English Language Content Enhancement (ELCE) courses. Description of ELCE is available on Page 12.

**Table 5: Curriculum Structure of the PGDE (Secondary)
(Chinese/Malay/Tamil) Programme**

| Category/ Subject | Course Code | Title | No. of AUs |
|---|----------------|--|---------------|
| EDUCATION STUDIES | | | |
| | QED52A | Educational Psychology: Theories and Applications for Learning and Teaching | 2 |
| | QED52B | Pedagogical Practices | 4 |
| | QED52C | Teacher-Student Relationship | 1 |
| | QED52D | Effective Parent Engagement for Teachers | 1 |
| | QED52E | Singapore Kaleidoscope | 2 |
| | QED52G | Technologies for Meaningful Learning | 2 |
| | QED52H | Professional Practice and Inquiry I | 0 |
| | QED52J | Professional Practice and Inquiry II | 1 |
| | QED52K | Teaching and Managing Learners at the Secondary/ Junior College Level | 2 |
| | QED52L | The Social Context of Teaching and Learning | 1 |
| | QED52M | Character and Citizenship Education | 1 |
| | QED52N | Assessing Learning and Performance | 1 |
| | QED52P | Group Endeavours in Service Learning | 1 |
| CURRICULUM STUDIES (Select either Chinese, Malay or Tamil) | | | |
| Chinese | | | |
| Chinese Language | QCC52A | Introduction to the Teaching of Chinese Language: Process, Pedagogy and Techniques | 3 |
| | QCC52B | The Teaching of Language Knowledge in Chinese | 3 |
| | QCC52C | The Teaching of Language Skills in Chinese 1: Listening and Speaking | 3 |
| | QCC52D | The Teaching of Language Skills in Chinese 2: Reading and Writing | 3 |
| | QCC50E | Language Testing and Assessment | 3 |
| Chinese Literature | QCJ52A | Special Topics in Chinese Language, Literature and Cultures (1) | 3 |
| | QCJ52B | Special Topics in Chinese Language, Literature and Cultures (2) | 3 |
| | QCJ52C | Special Topics in Chinese Literature (1) (Classical Chinese Literature) | 2 |
| | QCJ52D | Special Topics in Chinese Literature (2) (Modern Chinese Literature) | 2 |
| Malay | | | |
| Malay Language | QCD52A | The Teaching of Reading and Writing in Malay | 2 |
| | QCD52B | Use of Drama in Teaching Malay (Secondary) | 2 |

Cont'd

| | | | |
|---|--------|--|----|
| | QCD52C | Malay Language Curriculum: Approaches and Skills in the teaching and learning Malay Language | 3 |
| | QCD52D | The Teaching and Learning of Malay Language Grammar | 3 |
| | QCD52E | Assessments in the Teaching and Learning of Malay Language | 2 |
| Malay Literature | QCJ52E | Assessments in the Teaching of Malay Literature | 2 |
| | QCJ52G | Sociocultural Context of Literacy | 2 |
| | QCJ52H | The Teaching of Modern Malay Literature | 3 |
| | QCJ52J | The Teaching of Traditional Malay Literature | 3 |
| Tamil | | | |
| Tamil Language | QCT52A | Teaching of Tamil Language | 3 |
| | QCT52B | Teaching of Reading Skills in Tamil Language | 2 |
| | QCT52C | Teaching of Writing Skills in Tamil Language | 3 |
| | QCT52D | Teaching of Listening and Speaking Skills in Tamil Language | 2 |
| | QCT52E | Language Testing and Assessments | 2 |
| Tamil Literature | QCJ52K | Teaching of Tamil Poetry | 3 |
| | QCJ52L | Teaching of Tamil Drama | 2 |
| | QCJ52M | Teaching of Novels and Short Stories | 3 |
| | QCJ52N | Teaching of Tamil Proverbs, Idioms and Phrases | 2 |
| LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS (LEADS) | | | |
| All | QLK52C | Communication Skills for Teachers | 2 |
| Select the corresponding language | QLC52A | Use of Chinese in Teaching | 2 |
| | QLM52A | Use of Malay in Teaching | 2 |
| | QLT52A | Use of Tamil in Teaching | 2 |
| PRACTICUM | | | |
| | QPR52A | Teaching Assistantship | 3 |
| | QPR52B | Teaching Practice | 10 |

Contents of Core Courses

Education Studies

| Course Code | Title | Course Category | No. of AUs | Pre-requisites |
|-------------|---|-----------------|------------|----------------|
| QED52A | Educational Psychology: Theories and Applications for Learning and Teaching | Core | 2 | - |
| QED52B | Pedagogical Practices | Core | 4 | - |
| QED52C | Teacher-Student Relationship | Core | 1 | - |
| QED52D | Effective Parent Engagement for Teachers | Core | 1 | - |
| QED52E | Singapore Kaleidoscope | Core | 2 | - |
| QED52G | Technologies for Meaningful Learning | Core | 2 | - |
| QED52H | Professional Practice and Inquiry I | Core | 0 | - |
| QED52J | Professional Practice and Inquiry II | Core | 1 | - |
| QED52K | Teaching and Managing Learners at the Secondary/ Junior College Level | Core | 2 | - |
| QED52L | The Social Context of Teaching and Learning | Core | 1 | - |
| QED52M | Character and Citizenship Education | Core | 1 | - |
| QED52N | Assessing Learning and Performance | Core | 1 | - |
| QED52P | Group Endeavours in Service Learning | Core | 1 | - |

QED52A Educational Psychology: Theories and Applications for Learning and Teaching

This course provides the foundation for understanding the 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. Student teachers will synthesize and consolidate the key concepts learnt to establish explicit theory-practice links and analyse issues in authentic classroom scenarios. This enables the student teachers to leverage on the acquired theoretical-knowledge in order to make theory-based decisions for enhancing teaching and the design of learning experiences.

QED52B Pedagogical Practices

This course begins a few weeks after the start of the core course on classroom management for all student teachers. As this course is conducted in tandem with the student teachers' first teaching stint in school, it allows them to consolidate and explicitly link theory to practice, applying what they have already learnt in both courses on different classroom management theories, skills and strategies. More specifically, the student teachers will be exposed to various instructional approaches, and how differentiated instruction is carried out in a typical classroom. Discipline techniques such as managing disruptive students will also be taught in greater depth. This serves to help the teacher increase their students' engagement and enhance their academic skills and competencies, thus promoting Social Emotional learning at the same time. This course will allow student teachers opportunities to practice these skills during their first practicum stint and tutors will provide the support for the implementation of the skills as they return each week to their tutorials to discuss and share their experiences.

QED52C Teacher-Student Relationship

This course is designed for pre-service teachers to provide a foundation for the understanding of teacher-student relationship (TSR). The course will build on the

psychosocial, emotional, moral and motivational theories learned in the core course 'Educational Psychology: Theories and Applications for Learning and Teaching' to foster positive TSR in the classroom. In the context of enhancing TSR, the role of teachers and essential characteristics of a caring teacher will be explored. The course will also provide avenues for student teachers to understand and assess student problems, and to apply basic skills and strategies to foster and enhance TSR.

QED52D Effective Parent Engagement for Teachers

This course will help student teachers to appreciate and understand the importance of creating partnerships with parents in order to enhance child outcomes in the long run. Student teachers will examine the diversity of family structures and parenting styles and how these may impact upon student attitudes and learning. Through seminar style classes, student teachers learn to acquire practical strategies to effectively manage home-school relationships in their role as teachers as well as to learn effective communication strategies that can build rapport and promote empathy between teacher, parent and child.

QED52E 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, student teachers 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.

Learning objectives will focus on three main course components:

- Singapore's Natural Heritage: Focus on Singapore's bio-diversity & natural landscapes;
- Singapore Society & Culture: Focus on Singapore society, culture & heritage;
- Singapore in the World: Study of Singapore's geo-political landscape.

Through a range of inquiry-based options, student teachers will have opportunities to develop appreciation and understanding of challenges, issues, and perspectives central to these three areas of study.

QED52G Technologies for Meaningful Learning

This course prepares student teachers to engage learners in 21st century meaningful/quality learning with the use of ICT. Student teachers will learn how to analyze the affordances of ICT for promoting relevant characteristics of 21st century learning. They will examine critical issues related to designing ICT-enhanced lessons, which involves creating authentic learning needs, helping learners to be engaged in self-directed and collaborative learning, and integrating appropriate instructional strategies for disciplinary ways of knowing. They will also consider cyber wellness issues to promote the responsible use of technology. Student teachers will integrate their content, pedagogical and technological knowledge to design meaningful/quality ICT-enhanced teaching and learning activities.

QED52H Professional Practice and Inquiry I

This course provides the foundation for student teachers 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 student teachers to (i) explore and reflect on their beliefs as teachers, (ii) understand the process of inquiring into their teaching and (iii) articulate their growing understanding of what constitutes a 21st century educator pivoted on NIE's value-based V³SK framework.

QED52J Professional Practice and Inquiry II

This course builds on Professional Practice and Inquiry I. Embedded within the PPI course in the use of an e-Portfolio to facilitate student teachers' construction of their conceptual framework of learning and teaching. This course aids the aggregation and integration of student teachers' learning from the various courses in NIE to prepare them for their teaching practice. During teaching practice, the e-Portfolio facilitates student teachers' inquiry into their own practice with a focus on the Theory-Practice Nexus. In addition, student teachers articulate their growing understanding of what constitutes good teaching in relation to NIE's Graduated Teacher Competencies (GTC).

QED52K Teaching and Managing Learners at the Secondary/ Junior College Level

Teachers attend to learners of various needs and abilities across their different stages of development. Beginning Teachers require relevant classroom management skills and pedagogical approaches to effectively accommodate their students' differentiated learning needs. By the end of the course, student teachers will be aware of the necessary skills and knowledge required of Beginning Teachers to design conducive learning environments supported by relevant pedagogical approaches and to manage diverse learners in their classrooms.

QED52L The Social Context of Teaching and Learning

This course aims to promote deeper understanding about the socio-political development of the Singapore education system among pre-service teachers at the National Institute of Education. They will appreciate the functions of the education system in socializing citizens for economic, political and social roles in the context of a multi-ethnic and multicultural society. They will have the opportunity to understand the rationale of major education policies and new government initiatives that impact the work of school teachers, teacher, students and other stakeholders in order to achieve the Desired Outcomes of Education laid out by the Ministry of Education. At the same time, they will be made aware of the diverse and multiple roles that are played by teachers in the education system. It is hoped that pre-service teachers will become aware of the challenges that teachers face when engaging in pedagogical developments and initiatives in schools, and be empowered to become innovative, effective and caring teachers. Pre-service teachers are encouraged to link the content learnt in this course to what they have learnt in other courses at NIE, as they discuss major challenges and issues in the Singapore education system.

QED52M Character and Citizenship Education

This course helps pre-service teachers to understand the key concepts and issues in Character and Citizenship Education (CCE) and get a good grasp of their roles in CCE in school. As schools play a nurturing role in the development of students, teachers have the responsibility to be aware of their professional commitments with regard to CCE: What roles do teachers play in the character development of students? What are the relevant attitudes, knowledge and skills that teachers should possess to enable them to contribute meaningfully to the character development of their students in schools? How should teachers introduce students to the notions of citizenship through citizenship education?

Hence, the CCE course will allow pre-service teachers in NIE to learn about character development, elements of citizenship, key approaches and pedagogies for CCE, as well as current MOE CCE policy and curriculum. Furthermore, the course will emphasize the relevant knowledge and skills teachers will need in order to deliver the CCE curriculum. Pre-service teachers will learn about the policies associated with CCE and be given opportunities to discuss the implementation of CCE in their future roles as teachers.

QED52N 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 discussions on the different approaches to the use of assessment in education, namely assessment of, for and as learning.

QED52P Group Endeavours in Service Learning (GESL)

Group Endeavours in Service Learning (GESL) is a service-learning community engagement project which all student teachers will complete. Student teachers work in groups of about 20 on a service-learning project they craft together with a partner organization or organizations. GESL provides the opportunity for groups to broaden their knowledge and understanding of underprivileged communities.

Service and learning objectives are determined before the group starts on their project. Each group has a staff mentor who mentors and guides the group, and eventually assesses the group on their project. GESL seeks to empower student teachers through a hands-on approach of finding out the need of the community and serving them. It is hoped that through the experience of conducting a service-learning project, each student teacher would have developed social-emotional learning competencies and practiced, among other things, project management skills, teamwork, needs analysis, decision-making, empathy, and learn more about the community around us.

Curriculum Studies

The Teaching of Accounting

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCK52A | Reflective Practice in Accounting Learning Environment | Core | 3 | - |
| QCK52B | Further Strategies and Assessment of Accounting | Core | 3 | - |
| QCK52C | Pedagogical Approaches to Teaching and Learning Accounting | Core | 3 | - |
| QCK52D | Motivating Students to Learn Accounting | Core | 3 | - |

QCK52A Reflective Practice in Accounting Learning Environment

The learning environment is vital to student success and impacts students in many ways. In this module, we examine the impact of applying the Mixed Mode delivery model to improve teaching and learning experience through reflective practice. We will investigate the impact of using gamification and other methodology as applied in education for the teaching and learning of accounting. The evidence-based practices should guide technology use, curricular design, and pedagogy. In reflective practice based on these principles, student teachers engage in inquiry practices to develop understanding of the Learning Environment.

QCK52B Further Strategies and Assessment of Accounting

Modes of assessment and examination requirements for Principles of Accounts at “N”, ‘O’ level and exposure to Principles of Accounting at ‘A’ level will be covered; test analysis and construction, diagnosis, feedback and remediation are included in this module. Inquiry approaches to develop higher level skills in Accounting, e.g., guided discovery learning, simulation games, and

problem-based learning, will be covered, as well as the use of practice sets, case studies and projects in Accounting. Through this module, student teachers appreciate the assessment objectives and expectations so as to better plan the instructional programme well.

QCK52C Pedagogical Approaches to Teaching and Learning Accounting

This module introduces student teachers to the rationale and structure of Principles of Accounts in the school curriculum. After having an overview of syllabus development and MOE initiatives, the module covers a variety of strategies and resources for teaching and learning of Principles of Accounts. These include cooperative learning, peer tutoring, mastery learning, and practice sets. Theoretical underpinnings of certain best practices using frameworks like Dimensions of Learning, learning styles and brain-based learning in teaching express and normal course pupils will be shared. There will be opportunities for hands-on practice, role-play, group discussion & presentation, cooperative learning, peer evaluation & feedback in lesson planning and micro-teaching of selected topics in the Principles of Accounts syllabus, with peer feedback and self-reflection. Such experiential learning prepares student teachers for effective teaching and learning of Accounts.

QCK52D Motivating Students to Learn Accounting

This course introduces student teachers to experiential learning prepares students for effective teaching and learning of Accounts. Classroom management is highlighted too. As thinking skills is inherent in the syllabuses, strategies to develop thinking skills as well as using ICT to facilitate learning will be covered. Ample opportunities in harnessing ICT in the teaching and learning of Principles of Accounts to enhance the

effectiveness of the teaching-learning process will be provided. Accounts Carnivals and Trails are some enrichment activities that focus on a student-centered environment to enhance the teaching and learning of Accounts. Differentiated Instruction and peer tutoring are used in Accounts Clinic to expose student teachers to small group teaching and to a repertoire of strategies and various methods for teaching and learning.

The Teaching of Art

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCA52A | Concepts and Practices in Art Education | Core | 3 | - |
| QCA52B | Curriculum and Assessment in Art | Core | 3 | - |
| QCA52C | Teaching of Art in the Classroom | Core | 2 | - |
| QCA52D | Art Practice | Core | 3 | - |

QCA52A Concepts and Practices in Art Education

The course will examine how art practices have evolved over time. Issues that arise from these changes and developments will be discussed and student teachers have to reflect upon their own practices and relate them to the past, present and future of art education. The course will also examine how government policies and initiatives in the arts influence the teaching of art in local schools and beyond. This course will be integrated with the 4 weeks Teaching Assistantship.

QCA52B Curriculum and Assessment in Art

Student teachers will be introduced to key concepts in curriculum and assessment, and particularly in art education. Student teachers will be exposed to various curriculum models in art and evaluative instruments used in the field. Student teachers will develop competencies in designing art curriculum and programmes for schools while at the same time, be critical in examining and reflecting upon the various models and theories that they are adopting in their own curriculum design.

QCA52C 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, implementation of lesson and evaluation of students' learning. Student teachers will also be conscious of their own teaching approaches and be reflective about them.

QCA52D Art Practice

This course investigates the making of art through the use of various materials and media. It will involve the exploration of how these materials work as mediums of expression and learning through traditional and contemporary practices and teaching methods.

The Teaching of Biology

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCB52A | Pedagogies and Advances in Biology Teaching | Core | 3 | - |
| QCB52B | Tensions, Issues and Microteaching in Biology | Core | 3 | - |
| QCB52C | Curriculum and Scientific Practices in Biology Education | Core | 3 | - |
| QCB52D | Assessment in Biology Teaching | Core | 2 | - |

QCB52A Pedagogies and Advances in Biology Teaching

The course prepares teachers capable of high-quality and engaging instruction in the Biological Sciences. Through analysis of the local Biology curriculum and by learning a variety of thinking/study skills as well as co-operative learning strategies, student teachers will be able to plan effective lessons for pupils of different abilities. The management of pupil learning and safety practices in laboratories together with the creative use of ICT resources will be explored. Student teachers will also reflect and deliberate on the various strategies observed during their Teaching Assistant experience and be able to discuss the pedagogic principles behind these choices.

QCB52B Tensions, Issues and Microteaching in Biology

This course is divided into two parts – the first part delves into the tensions and issues such as time management between teaching of science theories and practice work, behavior management issues in the biology classroom and laboratory. The second part of the course aims to equip student teachers with the skills and ability to plan and teach a lesson in a realistic and meaningful manner for students.

QCB52C Curriculum and Scientific Practices in Biology Education

The course consists of 3 Academic units or 36 hours. It can be divided into two parts. Part 1 discusses some issues of the nature of science, scientific literacy and the use of history for teaching Biology. Part 2 develops the pedagogical content knowledge of student teachers by engaging them in discussing alternative conceptions, difficulties and problems in teaching various Biology topics. The role of resource centres in planning for fieldtrips for Biology teaching outside the classroom will be discussed. Participants 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.

QCB52D Assessment in Biology Teaching

This course will examine issues on the what and why of testing in science, discuss test construction, alternative assessment of practical skills, marking of examination scripts, and its implications for teachers and teaching styles. Issues and safety measures in conducting Life Sciences experiments will be discussed.

The Teaching of Chemistry

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCY52A | Pedagogies in Chemistry Education I | Core | 3 | - |
| QCY52B | Pedagogies in Chemistry Education II | Core | 3 | - |
| QCY52C | Assessment Practices in School Chemistry | Core | 2 | - |
| QCY52D | Chemistry Micro-Teaching | Core | 3 | - |

QCY52A Pedagogies in Chemistry Education I

This course focuses on the teaching and learning of Chemistry at the secondary level. It covers unit/lesson planning as well as pedagogical approaches that contribute to effective lesson delivery.

QCY52B Pedagogies in Chemistry Education II

This course aims to introduce the nature of science, science teaching and learning at secondary grade levels. It continues the discussion of the pedagogies which are relevant to the teaching of chemistry and the learning theories underlying these pedagogies.

QCY52C Assessment Practices in School Chemistry

This course focuses on the purposes of evaluation; tables of specifications; test construction, administration, marking, and analysis; and interpretation of test scores. Alternative assessment modes such as open-resource tests (including open-book tests), student project work, portfolio, and the writing of rubrics will also be considered. This course also covers the management, assessment and moderation of practical work (including practical examinations and course-based practical assessment).

QCY52D Chemistry Micro-Teaching

Micro-teaching provides opportunities to identify and practise basic teaching skills such as opening and closing a lesson, explaining concepts, questioning and responding to pupils. Student teachers practise the relevant skills through mini-presentations on selected chemistry topics at the secondary level. The presentations are reviewed and critiqued by peers and the tutor.

The Teaching of Chinese Language

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCC52A | Introduction to the Teaching of Chinese Language: Process, Pedagogy and Techniques | Core | 3 | - |
| QCC52B | The Teaching of Language Knowledge in Chinese | Core | 3 | - |
| QCC52C | The Teaching of Language Skills in Chinese 1: Listening and Speaking | Core | 2 | - |
| QCC52D | The Teaching of Language Skills in Chinese 2: Reading and Writing | Core | 2 | - |
| QCC52E | Language Testing and Assessment | Core | 2 | - |

QCC52A Introduction to the Teaching of Chinese Language: Process, Pedagogy and Techniques

This course covers the general principles in designing, implementing and managing a Chinese Language lesson at the primary level. Topics include: basic elements of a language lesson; lesson planning; language pedagogy and basic teaching techniques; material analysis and adaptation. Theories discussed will be closely linked to practice.

QCC52B The Teaching of Language Knowledge in Chinese

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: Hanyu Pinyin (phonetic transcription system) and its teaching; teaching of Chinese characters; teaching of vocabulary; genre and text analysis and its teaching.

QCC52C The Teaching of Language Skills in Chinese 1: Listening and Speaking

This course equips student teachers with the pedagogical theory and knowledge to deal with the teaching of listening and speaking skills in 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 concept of listening, speaking and spoken interaction skills; the principles and strategies of teaching listening, speaking and spoken interaction; the methodologies in designing and developing listening, speaking and spoken interaction tasks and activities; as well as the strategies for monitoring, analysing and assessing the above mentioned skills.

QCC52D The Teaching of Language Skills in Chinese 2: Reading and Writing

This course equips student teachers with the pedagogical theory and knowledge to deal with the teaching of Reading and writing skills in 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 concept of reading, writing and written interaction skills; the principles and strategies of teaching reading, writing and written interaction; the methodologies in designing and developing reading, written and written interaction tasks and activities; as well as the strategies for monitoring, analysing and assessing the above mentioned skills.

QCC52E Language Testing and Assessment

This course introduces to student teachers the basic theory and practice of Chinese language testing and assessment. Topics include: principles and types of language testing and assessment; the framework of test task characteristics; designing, developing and administering language tests; constructing test tasks for syntax, vocabulary, phonology and the Chinese script; constructing test tasks for listening, speaking, reading and writing skills; analysing and interpreting test statistics.

The Teaching of Chinese Literature

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCJ52A | Special Topics in Chinese Language, Literature and Cultures (1) | Core | 3 | - |
| QCJ52B | Special Topics in Chinese Language, Literature and Cultures (2) | Core | 3 | - |
| QCJ52C | Special Topics in Chinese Literature (1) (Modern Chinese Literature) | Core | 2 | - |
| QCJ52D | Special Topics in Chinese Literature (2) (Modern Chinese Literature) | Core | 2 | - |

QCJ52A Special Topics in Chinese Language, Literature and Cultures (1)

This course has 3 objectives. First, through field-observation and case-studies, it acquaints student teachers with various types of cultural activities that have been planned and carried out in local secondary schools, thereby enhancing their understanding on the forms and characteristics of these activities; second, adopting a point to plane approach, it discusses issues pertaining to China since 1978 from the social, cultural, political, economic and diplomatic aspects, thereby equipping student teachers with a basic understanding of contemporary China; third, it introduces the theory and practice of Chinese-English contrastive analysis and discusses its application in the local context, where Chinese is taught and learnt as a second language.

QCJ52B Special Topics in Chinese Language, Literature and Cultures (2)

Through the investigation of language policies, sociolinguistic changes within the Chinese community and CL 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 Chinese language, Chinese literature as well as Chinese culture in the local context. This course also equips student teachers with the fundamental knowledge and skills to effectively integrate ICT in teaching Chinese language and Chinese Literature. Topics include: theory and practice for the application of ICT in teaching Chinese language and Chinese Literature; using ICT to promote self-directed learning and collaborative learning; ICT and assessment.

QCJ52C Special Topics in Chinese Literature (1) (Modern Chinese Literature)

This course covers the general principles in designing, implementing and managing a Chinese literature lesson at the secondary and pre-University levels, with special emphasis on the classical component. Topics include: Delineating learning objectives; lesson design and writing of lesson plan; designing and sequencing learning activities; material analysis and adaptation; teaching strategies and techniques.

QCJ52D Special Topics in Chinese Literature (2) (Modern Chinese Literature)

This course focuses on the analysis of modern literary texts and pedagogy for the teaching of Chinese literature at the secondary and pre-University levels. Topics include: analysis of selected modern literary texts; important theories of literary criticism; characteristics and methodology for the teaching of modern Chinese literature; testing and assessment for the teaching of literature.

The Teaching of Computer Applications

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCQ52A | Instructional Approaches to Computer Applications | Core | 3 | - |
| QCQ52B | Topics in Computer Applications | Core | 3 | - |
| QCQ52C | Curriculum, Practices and Assessment in Computer Applications | Core | 3 | - |
| QCQ52D | Further Topics in Computer Applications | Core | 2 | - |

QCQ52A Instructional Approaches to Computer Applications

Introduction to applied use of the relevant learning theories, strategies and learning styles with reference to the various instructional approaches appropriate for the teaching of Computer Applications (CPA), as well as the abilities and profile of the students. The essential principles of planning effective CPA lessons employing varied strategies, problem-driven approaches and differentiated pedagogies will be covered. Techniques to engage and motivate learners will be introduced. The practical implementation of these strategies, approaches and techniques, and the underlying pedagogical decision-making will be discussed in connection with observations made during the Teaching Assistantship stint.

QCQ52B Topics in Computer Applications

The learning of basic skills-based topics in Computer Applications (CPA) in the Secondary Normal (Technical) syllabus with reference to key concepts, skills and developments in the subject including document processing, spreadsheets, computer graphics, multimedia presentations and digital animation. The hands-on creation of classroom activities and teaching/learning materials relevant to each area of CPA subject content will be covered, as will the appropriate pedagogical content knowledge for CPA

skills development.

QCQ52C Curriculum, Practices and Assessment in Computer Applications

The Computer Applications (CPA) curriculum will be outlined. The design, construction and analysis of assessments with reference to various assessment purposes, strategies and modes will be introduced. Standards and requirements for summative assessments, examinations and coursework projects will be covered, with opportunities to discuss performance/competencies expected of students and appropriate strategies for examination preparation. The coursework component will also be covered hands-on, to experientially construct the final product(s) expected of pupils. Student teachers will practise their instructional skills through planning and delivering mini-presentations on selected Computer Applications topics. The presentations will be reviewed and feedback given through peer and tutor critique.

QCQ52D Further Topics in Computer Applications

The learning of advanced skills-based topics in Computer Applications (CPA) in the Secondary Normal (Technical) syllabus with reference to key concepts, skills and developments in the subject including bitmap image graphics, audio and video editing, 3D drawing and web design. Selected content-based topics in computer fundamentals will also be covered, with a focus on developing pedagogical content knowledge and engagement strategies for effective teaching and learning. Current trends in computer technology, hardware, software and their uses, as well as the use of computing resources and emerging technologies to enhance learning will be covered.

The Teaching of Design and Technology

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCN52A | Design & Technology Education – Teaching and Evaluating the Design Process in-action | Core | 3 | - |
| QCN52B | Material & Technology Processing I | Core | 3 | - |
| QCN52C | Material & Technology Processing II | Core | 3 | - |
| QCN52D | Design & Technology Pedagogy and Management | Core | 2 | - |

QCN52A Design & Technology Education – Teaching and Evaluating the Design Process in-action

The course introduces the student teachers to the teaching and learning environment of the process of designing in-action for Design & Technology (D&T) in general education. It includes a practical approach to design communication, design journal work, and design activities specifically designed to encourage school pupils to be creative and critical design problem solvers. It enables student teachers to personally experience and practice the process of designing, design thinking and design problem structuring. Projects have been designed to give the student teachers opportunities to experience, practice and develop their skills through designing in-action and are directly linked to the design and make environment of the PGDE(S) CS1 D&T Material & Technology Processing courses I & II, and also the school situation. Student teachers will experience for themselves and learn the process of facilitating pupils in coursework, a facilitating process as a pedagogical stance. Practice link to courses' declarative and procedural knowledge will be facilitated and reinforced through weekly instructional discussion and reflection tutorial during student teachers' Teaching Assistantship stint. Teaching and learning design problems/solutions that infuse elements of MOE National initiatives will be proposed and discussed.

QCN52B Material & Technology Processing I

Material Processing is a hands-on practical processes course that exposes student teachers to practical-oriented project work. Student teachers are required to realize mini and minor projects with focus on basic practical tasks, making skills, tools & equipment, and workshop safety. Projects are also designed with focus on design-and-make routines. Student teachers work with three basic materials namely Metals, Plastics and Wood, and basic electricity and electronics related technology.

QCN52C Material & Technology Processing II

Material Processing is a hands-on practical processes course that exposes student teachers to practical-oriented project work. Student teachers are required to realize mini and minor projects with focus on basic practical tasks, making skills, tools & equipment, and workshop safety. Projects are also designed with focus on design-and-make routines. Student teachers work with three basic materials namely Metals, Plastics and Wood, and basic electricity and electronics related technology.

QCN52D Design & Technology Pedagogy and Management

This course provides student teachers with the opportunity to study and become familiar with the Design & Technology (D&T) syllabuses in relation to its philosophy, implementation and evaluation. It provides an in-depth analysis of the D&T subject in conjunction with the development of a scheme of work that comprises meaningful and holistic design projects. The effective integration of content knowledge, process knowledge and relevant 'technology' into the D&T programme and related project work is also covered. With this knowledge, the student teachers will be put through a

simulated teaching environment whereby they will plan and teach designing and the respective workshop processes via an integrative approach. The student teachers will practice, analyse and evaluate peer teaching sessions with special emphasis on introductory and closure procedures, questioning skills and practical demonstrations.

The Teaching of Elements of Business Skills

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QBS52A | Further Strategies and Assessment of Elements of Business Skills | Core | 3 | - |
| QBS52B | Motivating Students to Learn Elements of Business Skills | Core | 3 | - |
| QBS52C | Reflective Practice in Elements of Business Skills Learning Environment | Core | 3 | - |
| QBS52D | Pedagogical Approaches to Teaching and Learning Elements of Business Skills | Core | 3 | - |

QBS52A Further Strategies and Assessment of Elements of Business Skills

There are two parts to this course. The first part introduces student teachers to the different modes and examination requirements for Elements of Business Skills (EBS). This includes the discussion of assessment issues related to the examiners' expectations and the crafting of examination questions and mark schemes.

The second part covers further instructional approaches in the teaching and learning of EBS. This will extend discussion to the development of learning communities, inquiry and the use of Information Communications Technology (ICT) for self-directed learning. The focus will be on strategies and techniques that are specially catered to enhance teaching and learning to the less academically-inclined pupils by leveraging on ICT. Also, student teachers will learn how to embed assessment into pedagogy.

QBS52B Motivating Students to Learn Elements of Business Skills

Real-life experience in work contexts provides invaluable experience to reinforce learning. However, this may not be possible for many students due to many constraints of access and time. Hence, computer simulations tailored to

the learning outcome could be one solution. Simulation offers an exciting experiential learning to mirror a real-life situation at the workplace in the classroom, allowing students to make decisions and practice skills in a safe and interactive digital platform. This is especially useful for a subject like Elements of Business Skills (EBS) which covers many practical business skills such as marketing and customer service, set in authentic contexts of service sectors like tourism, hospitality and retailing. Our focus of interest is the potential effectiveness of these games and work attachments to develop good business knowledge, values and soft-skills among EBS students. Ample opportunities in harnessing ICT in the teaching and learning of EBS to enhance the effectiveness of the teaching-learning process will be provided. Learning trails and apps that focus on a student-centered environment to cater to differentiated learning styles and peer tutoring are used in to expose student teachers to a repertoire of strategies and various methods for teaching and learning.

QBS52C Reflective Practice in Elements of Business Skills Learning Environment

The learning environment is vital to student success and impacts students in many ways. In this module, we examine the impact of applying the Mixed Mode delivery model to improve teaching and learning experience through reflective practice. In this process of using research to inform practices and impact on students' learning, we will cover common problems in teaching practice and concerns about students' difficulty learning a particular topic in the course and their perceptions and attitude towards the learning environment. This will in turn affect their self-efficacy in the subject too. Through engagement with students, student teachers discover ways to improve action plans in light of their experience and feedback from the school students.

QBS52D Pedagogical Approaches to Teaching and Learning Elements of Business Skills

This course introduces student teachers to the rationale and structure of the Elements of Business Skills (EBS) in the school curriculum. Student teachers are exposed to a variety of strategies and resources for teaching and learning of EBS through experiential learning. Theoretical underpinnings of certain best practices using frameworks like Dimensions of Learning, learning styles and brain-based learning in teaching normal course pupils will be shared. There will be opportunities for hands-on practice, role-play, group simulation games, cooperative learning, peer evaluation and feedback in lesson planning and micro-teaching of selected topics in the EBS syllabus, and also for engaging in reflective practice. Such experiential learning prepares student teachers for effective teaching and learning of EBS. Classroom management is discussed too. Ample opportunities in embedding Information Communications Technology (ICT) and alternative assessments in the teaching and learning of EBS to enhance the effectiveness of the teaching-learning process will be provided. Emphasis is given to building a student-centred environment to enhance the teaching and learning of EBS. A mixed mode delivery (MMD) pedagogical framework is used to cater to the student teachers' needs and to expose them to a repertoire of strategies and methods for teaching and learning in an outcomes-focused, technology rich environment. Exposure to the use of video vignettes as case studies and running learning trails in authentic learning environments will also be covered.

The Teaching of English Language

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---------------------------------------|-----------------|-----------|----------------|
| QCE52A | Language Teaching Practice | Core | 2 | - |
| QCE52B | Language Teaching Approaches | Core | 6 | - |
| QCE52C | Unit Planning and Language Assessment | Core | 3 | - |

QCE52A Language Teaching Practice

This course aims to develop preservice teachers' understanding of teaching practice in a school context. It enables them to engage in the process of designing lessons and implementing them. Student teachers will be provided the opportunities to apply the language teaching approaches and assessment principles that they have learnt in the earlier courses. They will be provided feedback on their lesson preparation and delivery and they will reflect on their teaching practices with a focus on theory-practice link.

QCE52B Language Teaching Approaches

This course introduces student teachers to the theory and practice of teaching the following areas of language learning: listening, speaking, reading, writing, viewing, representing, grammar and vocabulary. It aims to help student teachers explore a range of strategies and skills for developing language proficiency in students, and develop lesson outlines for the above areas of language learning in integrated ways. Student teachers will become familiar with the theoretical perspectives, approaches and principles that underpin language teaching and learning. They will also develop an ability to select, evaluate, adapt, and use a variety of resources for language teaching and modes of assessment of learning. By encouraging a critical, integrated and balanced view of theory and

practice, this course aims to develop informed, reflective and effective beginning teachers of English Language at the secondary school level.

QCE52C Unit Planning and Language Assessment

This course aims to enable pre-service teachers to design unit plans to enhance students' learning in secondary school contexts. Student teachers will engage in the process of developing a unit of work using principles of curriculum planning. They will develop the skills of planning a unit of work taking into account students' profile and needs, the English Language Syllabuses and the macro contexts that influence the development of unit plans. Student teachers will also be introduced to the principles of assessment with an emphasis on an integrated approach to teaching, learning and assessment. They will plan and develop a range of assessment tasks.

The Teaching of English Literature

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCR52A | Literature Reflection and Practice | Core | 2 | - |
| QCR52B | Aims and Approaches to Teaching Literature | Core | 6 | - |
| QCR52C | Literature Curriculum and Assessment Design | Core | 3 | - |

QCR52A Literature Reflection and Practice

This course focuses on equipping pre-service teachers to design and execute engaging and effective Literature lesson plans. Student teachers will be given opportunities to implement Literature lessons applying pedagogical and assessment principles as well as demonstrating skills of text selection and materials development. This course will also provide pre-service teachers with the opportunity for critical reflection about the significance of teacher identity and how this informs practice.

QCR52B Aims and Approaches to Teaching Literature

This course prepares pre-service teachers for teaching in the secondary Literature classroom by (a) familiarizing them with the aims and objectives of Literature education in Singapore schools; (b) providing them with the pedagogical knowledge and skills to teaching poetry, prose, and drama; (c) grounding them in theories underlying different critical, creative, and ethical approaches to teaching Literature; (d) providing practical strategies to design well-structured, purposeful, and effective lesson plans; and (e) providing opportunities to critique a variety of lesson plans.

QCR52C Literature Curriculum and Assessment Design

This course will enable pre-service teachers to integrate pedagogical and assessment principles learnt to designing effective and engaging Literature unit plans. Student teachers will understand the expectations of the Literature curriculum and contextualize unit plans and assessment to meet the aims of the Literature curriculum. Student teachers will explore how to create and mark summative assessments as well as how to design alternative assessments including place-based learning experiences.

The Teaching of Geography

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCG52A | Geographical Understanding for Classroom Teaching | Core | 3 | - |
| QCG52B | Connecting Theory & Practice in Teaching Geography | Core | 3 | - |
| QCG52C | Field-based teaching in Geography | Core | 3 | - |
| QCG52D | Assessing Learning in Geography | Core | 2 | - |

QCG52A Geographical Understanding for Classroom Teaching

This course aims to provide student teachers with the disciplinary understandings of geography as an academic and school subject in preparation for classroom teaching. Student teachers will explore, develop and appreciate the importance of disciplinary thinking to their practice as teachers of geography in schools.

QCG52B Connecting Theory & Practice in Teaching Geography

This course aims to provide student teachers with the pedagogical content knowledge and skills to teach geography to secondary school students in the classroom. It addresses the relationships among fundamental aspects of teaching and learning: the subject matter of the curriculum, the diverse learners, the learning activities and the evidence of learning.

It also emphasizes the link between the theories learnt at NIE and the practices in schools. It ensures that the theories learnt at NIE are adequately internalized within the situational context of the schools, by scaffolding the process of applying theory to practice during their practicum.

QCG52C Field-based teaching in Geography

In this course, student teachers will construct and deepen their understanding of how to plan and conduct field-based lessons in Geography. They will experience field inquiry by asking good geographical questions, generating and testing hypotheses, and reflecting on what and how data is collected and represented. They will demonstrate their understandings by planning geographical field inquiry for secondary school students.

QCG52D Assessing Learning in Geography

In this course, student teachers will look at both alternative and traditional forms of assessment to prepare them to assess geography learning in alignment with their desired educational outcomes for students.

The Teaching of History

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCH52A | Approaches to the Teaching of History in Secondary Schools | Core | 3 | - |
| QCH52B | Teaching for Historical Understanding in Secondary Classrooms | Core | 3 | - |
| QCH52C | Historical Inquiry through Field Trips | Core | 3 | - |
| QCH52D | Assessment in History | Core | 2 | - |

QCH52A Approaches to the Teaching of History in Secondary Schools

This course introduces student teachers to the teaching and learning of history at the secondary school level. It aims to provide student teachers with an insight into the nature and purposes of school history, and offers them an opportunity to examine important curricular goals that underpin the teaching of school history and the implications these would have on historical learning. The course will build on student teachers' understanding about pedagogical practice as well as knowledge of learners and teaching approaches, and equip them with the skills and expertise to teach history to secondary school students. Student teachers will be given ample opportunities to plan for teaching, develop lesson ideas, and consider creative ways to enhance the learning of history in the classroom. A purposeful focus on 'linking theory with practice' will enable student teachers to reflect on teaching ideas and professional practice after the first practicum experience, and provides them with the necessary means to actively and responsively develop their craft.

QCH52B Teaching for Historical Understanding in Secondary Classrooms

This course aims to provide student teachers with an understanding of the nature of the historian's craft and the issues that are central to the discipline. It introduces student teachers to the challenging and complex undertaking of teaching for historical understanding, and seeks to explore some ways secondary students in Singapore can be taught to think historically about the past. The course exposes student teachers to the provisional nature of historical knowledge and selected concepts that underpin the historical discipline, the methodology involved in historical writing and investigation, and the historical thinking skills that shape and guide the process of historical inquiry. Student teachers not only will have the opportunity to consider how best to teach historical content to secondary students, they also will be challenged to develop the necessary tools that can enable these students to explore, interpret and understand the historical past. Using "historical inquiry" as a framework for teaching and learning, student teachers will design lesson structures that place focus on the use of historical sources to help students make sense of the past and develop deeper disciplinary understandings about the subject.

QCH52C Historical Inquiry through Field Trips

This course seeks to expose student teachers to a challenging strategy in history teaching by getting them to design (and implement) a history field trip for secondary school students using an inquiry framework. The course focuses on how field trips can be used to make history 'come alive' for students, and how well-planned inquiry-based field trips can serve to deepen students' understandings about the past. As part of the course,

student teachers will plan, organise and conduct field trips to selected sites in Singapore. In engaging secondary school students in an inquiry into the nation's past, student teachers will demonstrate how a historical field trip can be used to generate interesting and important questions about aspects of Singapore's history, offer students with the means to gather and make sense of the data collected on-site, and get students involved in cognitive tasks that will allow them to construct knowledge in light of the question/s investigated. Historical inquiry through field trips not only can provide secondary students with opportunities to discover little-known information about selected local sites, they also may enhance students' awareness of their own culture and heritage.

QCH52D Assessment in History

This course enables student teachers to conduct assessment in the study of history at the secondary level. Student teachers will be introduced to broad ideas related to educational assessment, and more specifically, to assessment goals that are aligned to the learning of school history. To meet the assessment objectives and examination requirements of the national curriculum, the course places emphasis on the use of source materials to construct assessment tools that serve both formative and summative purposes. The course also offers student teachers with sufficient opportunities to manage assessment demands and expectations in schools, with practical sessions focusing on: the setting of source-based (SBQ) and structured-essay questions (SEQ), procedures on devising marking schemes using the Levels of Response Mark Scheme (LORMS) format, and suggested strategies for use in the marking of answer scripts (for both SBQs and SEQs).

The Teaching of Food and Consumer Sciences

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCX52A | Food, Family and Consumer Sciences Curriculum | Core | 3 | - |
| QCX52B | Introduction to Food, Family and Consumer Sciences Teaching | Core | 3 | - |
| QCX52C | Evaluation in Food, Family and Consumer Sciences Teaching | Core | 3 | - |
| QCX52D | Trends in Food, Family and Consumer Sciences Education | Core | 2 | - |

QCX52A Food, 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. Student teachers will examine the local curriculum and deliberate on ways to package and deliver content knowledge within the context of Singapore school settings.

QCX52B Introduction to Food, Family and Consumer Sciences Teaching

The focus of this course is on the principles of teaching and learning applied to food, family and consumer sciences content. Instructional strategies appropriate for formal and informal settings including specific strategies for diverse audiences will be discussed. Student teachers will develop teaching skills through their 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. Student teachers will identify strategies observed during

their teaching experience in schools and evaluate these for future practice.

QCX52C Evaluation in Food, Family and Consumer Sciences Teaching

The focus of this course is on the principles of evaluation, framework for evaluation, procedures for appraising students' progress in the attainment of objectives. Content includes the construction of a range of evaluation instruments related to food, family and consumer sciences programmes in schools.

QCX52D Trends in Food, Family and Consumer Sciences Education

The focus of this course is on topical concerns and current issues of teacher and school and its impact on the curriculum, instruction and assessment of food, family and consumer sciences in schools. Student teachers will learn the necessary knowledge and skills that will enable them to carry out small scale research studies in a relevant cognate area. Each student teacher will undertake a project in a cognate area of food, family and consumer sciences education in school.

The Teaching of Malay Language

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCD52A | The Teaching of Reading and Writing in Malay | Core | 2 | - |
| QCD52B | Use of Drama in Teaching Malay (Secondary) | Core | 2 | - |
| QCD52C | Malay Language Curriculum: Approaches and Skills in the Teaching and Learning of Malay Language | Core | 3 | - |
| QCD52D | The Teaching and Learning of Malay Language Grammar | Core | 3 | - |
| QCD52E | Assessments in the Teaching and Learning of Malay Language | Core | 2 | - |

QCD52A The Teaching of Reading and Writing in Malay

This course aims to help student teachers develop the knowledge of processes and strategies to teach reading and writing at the primary level. It will equip student teachers with an understanding of the five essential components of effective reading: phonemic awareness, phonics, fluency, vocabulary, and text comprehension. Student teachers will learn strategies for teaching of writing of fiction, non-fiction and multimodal texts.

QCD52B Use of Drama in Teaching Malay (Secondary)

This course aims to help student teachers make their classroom teaching more interesting and creative via drama techniques. It will equip student teachers with basic drama techniques. Student teachers will also be taught the basics of incorporating drama in their language lesson, with an emphasis on the expressive aspects of the language, as well as using drama to infuse values.

QCD52C Malay Language Curriculum: Approaches and Skills in the Teaching and Learning of Malay Language

This course will introduce student teachers to Malay language curriculum objectives, syllabus, content development and implementation in secondary school. Student teachers will be exposed to the different language skills, namely listening, speaking, reading and writing skills with special emphasis on pupils' differing learning styles, abilities & varied academic programmes. Lesson plans & the use of appropriate media and teaching and learning materials will be shared.

QCD52D The Teaching and Learning of Malay Language Grammar

This course will introduce student teachers to the various strategies in teaching of Malay grammar, i.e. the affixes, sentence construction, active & passive voice, etc. Student teachers will work on several issues of practical concern to the teaching of Malay Grammar, namely the infusion of values and differentiated instructions, use of ICT and communicative language teaching.

QCD52E Assessments in the Teaching and Learning of Malay Language

This course will introduce student teachers to the concept of testing and assessment. Basic concepts such as validity and reliability, objectivity and the construction and administration of test items and materials will be discussed, and authentic and alternative assessments, rubric design and their application in classroom settings.

The Teaching of Malay Literature

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCJ52E | Assessments in the Teaching of Malay Literature | Core | 2 | - |
| QCJ52G | Sociocultural Context of Literacy | Core | 2 | - |
| QCJ52H | The Teaching of Modern Malay Literature | Core | 3 | - |
| QCJ52J | The Teaching of Traditional Malay Literature | Core | 3 | - |

QCJ52E Assessments in the Teaching of Malay Literature

This course aims to help student teachers to craft an assessment and evaluation tool for the teaching of Malay literature. Student teachers' creativity and critical thinking are put to the challenge in this course through exploration, experimentation, item analysis and rubric design.

QCJ52G Sociocultural Context of Literacy

The focus of this course is on literacy as a socially-situated practice. The course examines how gender, social class, economic position, language, and ethnicity influence, and are influenced, by adolescents' literacy, and how these relationships might be either problematic or capitalized on in school. The aim is for student teachers to appreciate the cultural and linguistic resources that students bring to class, and with this knowledge to look for ways to integrate those resources with the curriculum.

QCJ52H The Teaching of Malay Modern Literature

This course aims to help student teachers know the aims & objectives of teaching literature and understand the place of literature in the curriculum. Student teachers will be given an overview of developments of modern Malay and Indonesian literature. They will be equipped with general methods and technique of teaching modern Malay literature via various genres – short story, novel, poetry and drama. Apply knowledge in lesson planning.

QCJ52J The Teaching of Traditional Malay Literature

Traditional Malay literature – overview of the main features and development. The knowledge and skills in the teaching of Malay prose, poetry and selected classical genres and texts. The adaptation of Malay classical texts in the teaching of Malay language as a rich source of cultural enrichment.

The Teaching of Mathematics

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCM52A | Teaching and Learning of Secondary Mathematics I (All Secondary) | Core | 3 | - |
| QCM52B | Teaching and Learning of Secondary Mathematics II (All Secondary) | Core | 3 | - |
| QCM52C | Teaching and Learning of Secondary Mathematics III (All Secondary) | Core | 2 | - |
| QCM52D | Teaching and Learning of Secondary Mathematics IV (All Secondary) | Core | 3 | - |

QCM52A Teaching and Learning of Secondary Mathematics I (All Secondary)

The main objective of this course is to equip pre-service teachers with a working knowledge of basic teaching principles and an overview of the Singapore Secondary Mathematics Curriculum. The content of this course includes mathematics curriculum in Singapore; mathematical problem solving; teaching of mathematical topics – Arithmetic, Algebra, Functions and Graphs.

QCM52B Teaching and Learning of Secondary Mathematics II (All Secondary)

The course is designed to equip pre-service teachers with an understanding of the theories of learning that inform instruction as well as the practice of classroom skills and preparation based on such theories. The content of this course includes learning theories in mathematics; lesson planning; role of ICT in mathematics education; hands-on learning using Dynamic Geometry software; teaching of mathematical topics – Mensuration, Geometry, Trigonometry, Sets, Probability and Statistics.

**QCM52C Teaching and Learning of Secondary Mathematics III
(All Secondary)**

This course seeks to help pre-service teachers extend their knowledge of pedagogy to include more complex teaching strategies. The content of this course includes teaching of mathematical topics – Calculus, Higher Algebra, Coordinate Geometry and Further Trigonometry in Additional Mathematics.

**QCM52D Teaching and Learning of Secondary Mathematics IV
(All Secondary)**

This course seeks to provide pre-service teachers with an overview of assessment in teaching secondary mathematics, with an emphasis on test construction and design of alternative assessment tasks. This course will also provide opportunity for pre-service teachers to teach mathematics topics and practise their teaching skills.

The Teaching of Lower Secondary Mathematics

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCM53A | Teaching and Learning of Secondary Mathematics I (Lower Secondary) | Core | 3 | - |
| QCM53B | Teaching and Learning of Secondary Mathematics II (Lower Secondary) | Core | 3 | - |
| QCM53C | Teaching and Learning of Secondary Mathematics III (Lower Secondary) | Core | 2 | - |
| QCM53D | Teaching and Learning of Secondary Mathematics IV (Lower Secondary) | Core | 3 | - |

QCM53A Teaching and Learning of Secondary Mathematics I (Lower Secondary)

The main objective of this course is to equip pre-service teachers with a working knowledge of basic teaching principles and an overview of the Singapore Secondary Mathematics Curriculum. The content of this course includes mathematics curriculum in Singapore; mathematical problem solving; teaching of mathematical topics – Arithmetic, Algebra, Functions and Graphs.

QCM53B Teaching and Learning of Secondary Mathematics II (Lower Secondary)

The course is designed to equip pre-service teachers with an understanding of the theories of learning that inform instruction as well as the practice of classroom skills and preparation based on such theories. The content of this course includes learning theories in mathematics; lesson planning; role of ICT in mathematics education; hands-on learning using Dynamic Geometry software; teaching and learning of mathematical topics – Mensuration, Geometry and Trigonometry.

QCM53C Teaching and Learning of Secondary Mathematics III (Lower Secondary)

This course seeks to help pre-service teachers extend their knowledge of pedagogy to include more complex teaching strategies. The content of this course includes teaching of mathematical topics – Sets, Probability and Statistics.

QCM53D Teaching and Learning of Secondary Mathematics IV (Lower Secondary)

This course seeks to provide pre-service teachers with an overview of assessment in teaching secondary mathematics, with an emphasis on test construction and design of alternative assessment tasks. This course will also provide opportunity for pre-service teachers to teach mathematics topics and practise their teaching skills.

The Teaching of Music

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCI52A | Theory and Practice of Music Education (TA-linked course) | Core | 3 | - |
| QCI52B | Classroom Pedagogies in Local Music | Core | 3 | - |
| QCI52C | Teaching Music as an Examination Subject (O- and NT- Level) | Core | 3 | - |
| QCI52D | ICT and Popular Music in Education | Core | 2 | - |

QCI52A Theory and Practice of Music Education (TA-linked course)

This course provides student teachers with a foundation on the theory and practice of music education as they relate to the Singapore Secondary General Music Programme (GMP). Pedagogical approaches (e.g., Orff, Dalcroze, Kodaly) as well as classroom activities (such as creating, performing, and responding) will be examined alongside the designing of curriculum and assessment for the Singaporean Secondary GMP classroom. Included in this module is the theory-practice link where student teachers will be required to critically reflect on their teaching experiences in school.

QCI52B Classroom Pedagogies in Local Music

This course introduces student teachers to Secondary school classroom pedagogies in local musical cultures. The course includes hands-on participation in the musical traditions of Gamelan, Chinese, Malay and Indian cultures. These include the basic playing techniques and song forms of Gamelan, the Chinese Guzheng, the Malay framed drums, kompang and rebana, and a basic understanding of raga and tala. Audio-visual illustrations, which will emphasize cultural and contextual approaches, will be complemented by practical instruction in these

various musical traditions. The course also includes seminars and micro-teaching on classroom application of these musical practices.

QCI52C Teaching Music as an Examination Subject (O- and NT-Level)

This course will cover teaching approaches and specific methodologies for preparing students taking the G.C.E. O- (including the 'Higher Music' options) and NT- level music exams. Through this course, student teachers will develop the required skills to teach and assess O- and NT- level students in the music programme through lesson planning, microteaching and exam paper setting. Throughout the course, an emphasis would be placed on developing the musical ear, music discourse skills, and the teaching of western, non-western, and popular musics.

QCI52D ICT and Popular Music in Education

This course provides student teachers with an introduction to ICT teaching and learning for the music classroom. Web-based (Web 2.0/3.0) and software resources (e.g. Acid Pro, Audacity, Cakewalk, Cubase, GarageBand, Finale, Sibelius) will be explored and discussed alongside the development of appropriate curriculum packages and teaching strategies that incorporate the use of ICT for the Secondary General Music Programme (GMP). Included in the course are ways in teaching Western Popular music, Latino music and jazz/blues through active participation and music-making.

The Teaching of Physics

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCP52A | Understanding the Physics Curriculum | Core | 3 | - |
| QCP52B | Physics Instruction & Microteaching | Core | 3 | - |
| QCP52C | Assessment in Physics Education | Core | 3 | - |
| QCP52D | Innovating Physics Teaching and Learning | Core | 2 | - |

QCP52A Understanding the Physics Curriculum

The aim of this course is to develop student teachers' understanding of the physics curriculum, and pedagogy for physics teaching. At the end of this course, student teachers should be able to design inquiry-based activities that take into consideration students' characteristics and nature of content. In this course, 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 their similarities and differences. The notion of differentiated instruction will be introduced so that 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.

QCP52B 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.

QCP52C 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 the development of physics tests, marking and analyzing of test papers.

QCP52D Innovating Physics Teaching and Learning

Teaching and learning in physics classroom can be improved if teachers are empowered to innovate their teaching practices. In this course, student teachers will reflect on and inquire into current teaching practices, and explore new practices for teaching and learning physics. The course provides student teachers with an understanding of issues faced with teaching and learning physics, be it curriculum, instruction or assessment, and expose them to new pedagogical models and strategies for teaching and learning physics so as to nurture them to become designers of physics learning.

The Teaching of Social Studies

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCL52A | Social Studies education in the secondary school classroom | Core | 3 | - |
| QCL52B | Discussion-based lessons in Social Studies (TA-Link) | Core | 3 | - |
| QCL52C | Assessing Learning in Social Studies | Core | 3 | - |
| QCL52D | Investigating Societal Issues | Core | 2 | - |

QCL52A Social Studies education in the secondary school classroom

This course aims to provide student teachers with an understanding of the rationale, nature and scope of the secondary school Social Studies curriculum. The course will provide opportunities for student teachers to reflect on some of the significant societal issues and tensions related to Social Studies education in Singapore. It also seeks to equip student teachers with a variety of classroom-based teaching strategies that are appropriate for diverse learners. The course will also provide opportunities for student teachers to reflect on the teaching of concepts, content, skills and values that are integral to Social Studies education, design unit and lesson plans, and discuss and practice some of teaching strategies in a cooperative learning environment.

QCL52B Discussion-based lessons in Social Studies (TA-Link)

This course aims to prepare student teachers with better understanding and methods to engage in a systematic planning and use of discussion-based lessons in order to support the use of inquiry in the teaching and learning of Social Studies. The student teachers will be able to connect theory to practice in this module by testing out the discussion-based lessons they have planned. This

ensures that the theories learnt are internalised within the classroom context in schools where a conscious effort will be made to integrate theory with practice during class discussions.

QCL52C Assessing Learning in Social Studies

This course aims to provide student teachers with an understanding of the rationale and goals of upper secondary Social Studies assessment. Student teachers will have opportunities to examine examination papers, mark sample scripts and set source-based and structured- response questions, as well as devise mark schemes.

QCL52D Investigating Societal Issues

This course will focus on enabling student teachers to have a better understanding of societal issues that have been shaping Singapore society and the world. The course will also provide exposure to social science inquiry methods in order to help teachers think about how these methods can be applied to Social Studies Issue Investigations.

The Teaching of Tamil Language

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCT52A | Teaching of Tamil Language | Core | 3 | - |
| QCT52B | Teaching of Reading Skills in Tamil Language | Core | 2 | - |
| QCT52C | Teaching of Writing Skills in Tamil Language | Core | 3 | - |
| QCT52D | Teaching of Listening and Speaking Skills in Tamil Language | Core | 2 | - |
| QCT52E | Language Testing and Assessments | Core | 2 | - |

QCT52A Teaching of Tamil Language

The course aims to broaden student teacher's knowledge on the basic classroom teaching techniques in Tamil language such as lesson planning and effective lesson delivery. Besides the basic techniques, student teachers will also gain a better understanding on developing the language proficiency of student teachers in Secondary School through teaching of the 4 key skills in Tamil Language. Through this course, they will gain an insight on the use of ICT in teaching Tamil Language at secondary level and experiential learning such as games and classroom activities. Student teachers will also learn ways to use and create instructional materials and resources to enhance teaching and learning. Student teachers will gain a better understanding on the usage of lexical terms in teaching Tamil Language. They will also learn more in depth about the use of functional grammar and error analysis in the teaching of Tamil language. Besides, students will also get the opportunity to enhance their Tamil word processing skills.

QCT52B Teaching of Reading Skills in Tamil Language

Besides providing an overview on the need to build reading skills in pupils, the course is to broaden student teachers' knowledge on the various approaches that should be adopted in classroom teaching and learning. The course will enable student teachers to have a broader understanding on the various types of reading such as reading aloud, silent reading, deep reading and wide reading. Accurate intonation, pitch and pronunciation are a few of the various factors that will be taught in this course. In addition, they will understand the letters that needs to be stressed, the places of pauses etc. Student teachers will also study the various methods that will be useful in enabling pupils to comprehend meaning of texts and build inferential skills in them. Through this course, student teachers will be able to effectively assess the reading skills of pupils at secondary level. Besides developing pupils' language skills, student teachers will also understand the need to cultivate reading as a long term habit in their pupils. Student teachers will be equipped with the knowledge to apply methods that would encourage this habit.

QCT52C Teaching of Writing Skills in Tamil Language

Besides providing an overview on the need to build writing skills in pupils, the course is to broaden student teachers' knowledge on the various approaches that should be adopted in classroom teaching and learning. The course will cover aspects on the specifics of essay writing, such as beginning an essay with poetry and proverbs etc. The course will elaborate on the various writing practices in Tamil language such as composition, story writing, situational writing, descriptive writing, cloze passage etc. Student teachers will be equipped to enhance the writing skills of pupils in day to day teaching and learning by

adopting various methods and approaches. In addition, student teachers will study the techniques in applying idioms, proverbs and poetic texts in secondary level. They will also learn ways to develop writing skills with the use of ICT. Student teachers will study the stylistic variations in writing and the impact of these styles on a text. Through this course, student teachers will be able to effectively assess the writing skills of pupils at secondary level.

QCT52D Teaching of Listening and Speaking Skills in Tamil Language

The course aims to broaden student teachers' knowledge on the various approaches to build listening and speaking skills in secondary level through an interesting and effective manner. Specifically, student teachers will learn the techniques in teaching listening skills such as hearing, listening and inferring and speaking skills to secondary school students. They will be equipped to set effective listening comprehension exercises to assess pupils' listening skills. As Tamil is a diglossic language, student teachers should also acquire the skills to differentiate spoken Tamil and written Tamil in order to equip their pupils to improve their listening and speaking skills. Student teachers will also identify ways to infuse ICT to stimulate pupils' speaking skills in classroom teaching and learning. Besides these, student teachers will also acquire the necessary skills to create resources such as pictures, video clips etc. that will aid in the teaching of listening and speaking skills in pupils.

QCT52E Language Testing and Assessments

Focusing on the various methods of assessments, student teachers will master the skills to conduct both formative and summative assessments effectively to

check on pupils' understanding. They will be able to differentiate formative and summative assessments. Student teachers will gain a better understanding on the selection of suitable comprehension passages. They will acquire the skills to effectively set comprehension questions i.e. Higher order questions, short answer questions, MCQ questions etc. They will have a better understanding on the standardization process and methods in grading pupils' work. They will learn ways to assess pupils' reading, speaking and other skills. Besides, they will be equipped with the skills to assess the credibility of question papers.

The Teaching of Tamil Literature

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCJ52K | Teaching of Tamil Poetry | Core | 3 | - |
| QCJ52L | Teaching of Tamil Drama | Core | 2 | - |
| QCJ52M | Teaching of Novels and Short Stories | Core | 3 | - |
| QCJ52N | Teaching of Tamil Proverbs, Idioms and Phrases | Core | 2 | - |

QCJ52K Teaching of Tamil Poetry

Student teachers will be able to understand the importance of Tamil Poetry and its impact on pupils. They will also be able to identify the role of Poetry in the teaching of Tamil language at secondary level. The course provides an insight on the various aspects of National Education in Tamil Literature. Student teachers will be able to appreciate/critic the literary works. Specifically, student teachers will acquire the skills to analyze literary texts in its various factors such as meaning, imagination, form and intended message etc. which will facilitate effective teaching of Tamil literature. Student teachers will study the various approaches in teaching Tamil Poetry written in various periods – Sangam Period to modern period ranging from BC 2 to 21st century. These approaches include – Picturization, role play etc. They will also learn the importance of testing methods in Tamil Literature. Creative ways to infuse ICT in the teaching of Tamil poetry to enhance teaching and learning will also be introduced.

QCJ52L Teaching of Tamil Drama

The course aims to broaden student teachers' knowledge on the teaching of the various types of drama in Tamil Literature. They will be able to recognize and analyze the

various types of dramas which include readable and stage play etc. They will be taught to analyze these dramas based on various aspects such as - Introduction, climax, turning point and conclusion etc. Student teachers will also learn the role of Tamil drama to encourage spoken Tamil in pupils. In addition, the course provides an insight on the various aspects of National Education in Tamil Dramas. Student teachers will be able to appreciate/critic the various literary works. They will also study creative ways to infuse ICT in the teaching of Tamil drama to enhance teaching and learning.

QCJ52M Teaching of Novels and Short Stories

Student teachers will be able to understand the importance of Novels and Short Stories in Tamil Literature through this course, acquiring the skills to enhance the teaching of Tamil language. Student teachers will also acquire the skills to identify the National Education messages in Novels and Short Stories in Tamil Language and integrate these messages into lessons using Tamil fictions. They will be able to understand the importance of Tamil Novels and Stories in the teaching of Tamil Language. The course will enable student teachers to differentiate Novels from Short stories. Specifically, student teachers will study the various types of Novels such as Historical and Social etc. They will be equipped with the skills to analyze Novels and Short stories in depth based on various factors which include characterization and techniques used. In addition, they will also study creative ways to infuse ICT in the teaching of Tamil Novels and Short Stories to enhance teaching and learning.

QCJ52N Teaching of Tamil Proverbs, Idioms and Phrases

The course aims to enable student teachers to

understand and gain insight on the use of Tamil Proverbs, Idioms and Phrases in the teaching of Tamil Language. Student teachers will also understand the appropriate application of these anecdotes by studying its traditional usage. The course will elaborate on the creative methods of teaching Tamil Proverbs, Idioms and Phrases in various situations or during a conversation. Student teachers will also learn to infuse ICT in the teaching of Tamil Proverbs, Idioms and Phrases. Besides identifying existing suitable resources student teacher will also be able to create resources such as video clips, painting etc. that will enhance the teaching of Tamil Proverbs, Idioms and Phrases. Through this course, student teachers will be able to appreciate the aesthetic sense of Tamil Language.

Practicum

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|------------------------|-----------------|-----------|----------------|
| QPR52A | Teaching Assistantship | Core | 3 | - |
| QPR52B | Teaching Practice | Core | 10 | - |

Teaching Practicum is a very important component of the PGDE 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.

QPR52A Teaching Assistantship

The 4-week Teaching Assistantship provides student teachers with the opportunities to observe their Cooperating Teachers (CTs) teach and to reflect on the roles and responsibilities of a teacher. They will also be given the practical experience of helping their CTs plan lessons, prepare resources, manage pupils, and to do some assisted teaching. During the 4-week stint, the student teachers will return to NIE one day a week, and take part in facilitated discussions to help them better understand their role as teachers and strengthen their application of theory to practice.

QPR52B Teaching Practice

The Practicum comprises a 10-week Teaching Practice (TP), in which 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.

Language Enhancement and Academic Discourse Skills

Communication Skills for Teachers

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QLK52A | Practical Pronunciation for Teachers (for student teachers with Curriculum Studies: English Language or General Paper) | Core | 1 | - |
| QLK52B | Practical Pronunciation for Teachers | Core | 1 | - |
| QLK52C | Communication Skills for Teachers | Core | 2 | - |

QLK52A Practical Pronunciation for Teachers (for student teachers with Curriculum Studies: English Language or General Paper)

This course aims to strengthen EL student teachers' knowledge of phonetics and pronunciation in order to equip them to implement the MOE EL syllabus more effectively. It prepares them for their curriculum studies courses where knowledge about language is linked to classroom practice. Participants will be equipped with a better understanding of issues relating to pronunciation in Singapore and learn about resources to enhance their own pronunciation and to research issues their students may encounter. They will engage in a range of listening, speaking and reading activities to raise their awareness of the sounds, rhythm and stress patterns of English and of ways to express meaning. They will identify and compare significant pronunciation features of the English language varieties spoken in Singapore, develop the ability to differentiate between them, and learn about the target variety for oral communication in the classroom. Links will be made to the MOE syllabus at primary and secondary level to show how the content covered on the course relates to curriculum coverage and their students' needs.

QLK52B Practical Pronunciation for Teachers

The whole school approach to English emphasises the importance of all English-medium teachers providing good models of the target variety of spoken English. Participants will identify and compare the significant pronunciation features of the English language varieties spoken in Singapore, develop the ability to differentiate between them, and learn about the target variety for oral communication in the classroom. They will be made aware of how a teacher's pronunciation may impact his/her ability to deliver disciplinary content effectively to students, and will be introduced to a range of resources that will help them investigate language items specific to their own disciplines, such as the use of dictionaries to check the pronunciation of vocabulary related to their subject areas. With greater understanding of language related issues, student teachers will be in a better position to help their students develop in their spoken competence, and to encourage them to see the importance of speaking with accurate pronunciation and appropriate intonation during oral discussions or presentations in their content areas.

QLK52C 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. The 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 the opportunities to practise good pronunciation, to understand effective voice

production and to reflect on and self-assess their application of the knowledge and skills that they acquire during the course.

Use of Chinese in Teaching

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|----------------------------|-----------------|-----------|----------------|
| QLC52A | Use of Chinese in Teaching | Core | 2 | - |

QLC52A Use of Chinese in Teaching

This course aims to equip student teachers with the essential knowledge and communication skills on the use of Chinese in teaching. Topics include: understanding the difference between Standard Chinese and Mandarin in Singapore; development of oral proficiency and use of Standard Spoken Chinese in the classroom and school environment.

Use of Malay in Teaching

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--------------------------|-----------------|-----------|----------------|
| QLM52A | Use of Malay in Teaching | Core | 2 | - |

QLM52A Use of Malay in Teaching

This course aims to develop student teacher's skills in using Malay for effective oral communication. Emphasis will be given on proper pronunciation in Standard Malay in a formal setting. Student teachers will be exposed to creative and effective application of Malay proverbs in the teaching of Malay language for cultural enrichment. Forms of language etiquette and its application in the teaching and learning of Malay language will also be shared.

Use of Tamil in Teaching

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--------------------------|-----------------|-----------|----------------|
| QLT52A | Use of Tamil in Teaching | Core | 2 | - |

QLT52A Use of Tamil in Teaching

The course focuses on developing student teachers' oral and written communication skills. Specifically, the course aims to develop their oral proficiency by mastering language accuracy and studying phonetics, enabling them to enhance their communication skills for both within and beyond the classroom. Student teachers will also master the basic concepts of writing and the various writing skills. These writing skills include essay writing, report writing, creative writing and other written communication skills that are necessary for various professional roles that teachers assume in Secondary schools.

**PGDE Programme
Teaching at Junior College Level**

Curriculum Structure

Table 6: Curriculum Structure of the PGDE (Junior College) (General) Programme

| Category/ Subject | Course Code | Title | No. of AUs |
|---|----------------|---|---------------|
| EDUCATION STUDIES | | | |
| | QED52A | Educational Psychology: Theories and Applications for Learning and Teaching | 2 |
| | QED52B | Pedagogical Practices | 4 |
| | QED52C | Teacher-Student Relationship | 1 |
| | QED52D | Effective Parent Engagement for Teachers | 1 |
| | QED52E | Singapore Kaleidoscope | 2 |
| | QED52G | Technologies for Meaningful Learning | 2 |
| | QED52H | Professional Practice and Inquiry I | 0 |
| | QED52J | Professional Practice and Inquiry II | 1 |
| | QED52K | Teaching and Managing Learners at the Secondary/ Junior College Level | 2 |
| | QED52L | The Social Context of Teaching and Learning | 1 |
| | QED52M | Character and Citizenship Education | 1 |
| | QED52N | Assessing Learning and Performance | 1 |
| | QED52P | Group Endeavours in Service Learning | 1 |
| CURRICULUM STUDIES- JUNIOR COLLEGE (Any one as assigned) | | | |
| Biology | QCB54A | Assessment and implications of theory and practice links in Junior College Biology | 3 |
| | QCB54B | Microteaching in Junior College Biology | 1 |
| | QCB54C | Pedagogical Content Knowledge in A- level Biology | 3 |
| Chemistry | QCY54A | The Teaching and Learning of A-Level Chemistry | 3 |
| | QCY54B | Assessment at A-Level Chemistry | 3 |
| | QCY54C | Integrating Theory and Practice in A-Level Chemistry Teaching, Learning, and Assessment | 1 |
| Economics | QCO54A | Pedagogical Approaches to Teaching and Learning Economics | 3 |
| | QCO54B | Further Strategies and Assessment of A-Level Economics | 3 |
| | QCO54C | Motivating Students to Learn and Appreciate Economics in the Real-World Context | 3 |
| | QCO54D | Reflective Practice in Economics Learning Environment | 2 |

cont'd

| | | | |
|--|-------------------|--|----|
| Geography | QCG54A | Geographical Understanding for Advanced Level | 3 |
| | QCG54B | Connecting Theory & Practice in Teaching Geography for Advanced Level | 3 |
| | QCG54C | Assessing Learning in Geography for Advanced Level | 1 |
| General Paper ** | QGP54A | The Practice of Teaching General Paper | 2 |
| | QGP54B | Aims and Approaches to the Teaching of General Paper | 6 |
| | QGP54C | Experiences in the Teaching of General Paper | 3 |
| History | QCH54A | Teaching and Learning History at the A-level | 3 |
| | QCH54B | Conceptual Learning and Historical Inquiry for A-Level History | 3 |
| | QCH54C | Assessment for A-Level History | 1 |
| Mathematics | QCM54A | Teaching and Learning of A-Level Mathematics I | 3 |
| | QCM54B | Teaching and Learning of A-Level Mathematics II | 3 |
| | QCM54C | Teaching and Learning of A-Level Mathematics III | 1 |
| Physics | QCP54A | Teaching and Learning of A-level Physics | 3 |
| | QCP54B | Assessment in A-level Physics | 3 |
| | QCP54C | Designing Learning Objects for Teaching and Learning of A-level Physics Topics | 1 |
| CURRICULUM STUDIES at Secondary Level ^ | | | |
| Kindly refer to pages 94 to 147 for the exact course codes and course titles | | | 11 |
| KNOWLEDGE SKILLS | | | |
| | QKS54A | Knowledge Skills: Project Work | 1 |
| | QKS54B | Knowledge Skills: Critical Literacy Skills | 1 |
| | QKS54C | Knowledge Skills: Multidimensional Thinking Skills | 1 |
| LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS (LEADS) | | | |
| | QLK52A / QLK52B * | Practical Pronunciation for Teachers | 1 |
| | QLK52C | Communication Skills for Teachers | 2 |
| PRACTICUM | | | |
| | QPR54A | Teaching Assistantship | 3 |
| | QPR54B | Teaching Practice | 10 |

Note: * QLK52A is offered to student teachers who will be teaching English language and/or General Paper, while QLK52B is offered to student teachers who will be teaching English-medium subjects.

** Student teachers whose Curriculum Studies is the Teaching of English Language and/or the Teaching of General Paper are required to undertake English Language Content Enhancement (ELCE) courses. Description of ELCE is available on page 12.

^ The Secondary teaching subject must be aligned to the Junior College teaching subject with the exception of Economics and General Paper.

Contents of Core Courses

Education Studies

The courses for QED52A-52P are described in Education Studies section under PGDE Programme, Teaching at Secondary Level.

Curriculum Studies (Secondary)

The Teaching of

Descriptions of courses for Curriculum Studies are available in Curriculum Studies section under PGDE Programme, Teaching at Secondary Level.

Language Enhancement and Academic Discourse Skills

Communication Skills for Teachers

Description of course is available in Language Enhancement and Academic Discourse Skills section under PGDE Programme, Teaching at Secondary Level.

Curriculum Studies

The Teaching of Biology

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCB54A | Assessment and implications of theory and practice links in Junior College Biology | Core | 3 | - |
| QCB54B | Microteaching in Junior College Biology | Core | 1 | - |
| QCB54C | Pedagogical Content Knowledge in A- level Biology | Core | 3 | - |

QCB54A Assessment and implications of theory and practice links in Junior College Biology

The course examines the assessment issues related to A-level biology. In the first part of the course, basic test setting and marking of various types of biology questions will be examined. In the second part of the course, student teachers will be taught how to design and assess experimental skills and investigations. Infused in this course are the links made between what is actually going on in schools with respect to assessment and teaching/learning issues and what theoretical models suggest.

QCB54B Microteaching in Junior College Biology

In this course, student teachers will practice the relevant skills through mini-presentations on various A-level biology topics. The presentations will be reviewed and critiqued by peers and tutor.

QCB54C Pedagogical Content Knowledge in A- level Biology

student teachers will learn how to conduct investigative case-based learning which involves planning investigations, collecting data, analyzing data, presenting

data, and preparing scientific posters. The course will examine the A-level Biology curriculum, and cover the pedagogical content knowledge required by the A-level Biology syllabus. student teachers will be required to prepare and present instructional packages for selected A-level Biology topics.

The Teaching of Chemistry

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCY54A | The Teaching and Learning of A-Level Chemistry | Core | 3 | - |
| QCY54B | Assessment at A-Level Chemistry | Core | 3 | - |
| QCY54C | Integrating Theory and Practice in A-Level Chemistry Teaching, Learning, and Assessment | Core | 1 | - |

QCY54A The Teaching and Learning of A-Level Chemistry

This course seeks to raise student teachers' awareness of recent chemistry education research trends and topics, and help them to acquire pedagogical and technical knowledge, and skills in planning, designing, and implementing A-level chemistry lessons including lectures, tutorials, and practical work. It will enable student teachers to acquire pedagogical and technical knowledge, and skills in planning, designing, and implementing A-level chemistry lessons including lectures, tutorials, and practical work.

QCY54B Assessment at A-Level Chemistry

This course will raise student teachers' awareness of recent chemistry education research in assessment and help them acquire the knowledge and skills in constructing diverse types of assessment items for A-level chemistry.

QCY54C Integrating Theory and Practice in A-Level Chemistry Teaching, Learning, and Assessment

This course will enable student teachers to be knowledgeable about some theories (e.g., affordances, capital, conceptions and conceptual change) and methods (e.g., discourse analysis) in science education

research that can be applied to analyse classroom data.

The Teaching of Economics

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCO54A | Pedagogical Approaches to Teaching and Learning Economics | Core | 3 | - |
| QCO54B | Further Strategies Approaches and Assessment of A-Level Economics | Core | 3 | - |
| QCO54C | Motivating Students to Learn and Appreciate Economics in the Real-World Context | Core | 3 | - |
| QCO54D | Reflective Practice in Economics Learning Environment | Core | 3 | - |

QCO54A Pedagogical Approaches to Teaching and Learning Economics

This course introduces student teachers to the rationale of Economics in the school curriculum and the requirements of the GCE A level Economics syllabus. After having an overview of syllabus development and MOE initiatives, the student teachers are exposed to a variety of strategies and resources for teaching and learning of Economics through experiential learning. These include cooperative learning, team-based learning, and problem-based learning. Theoretical underpinnings of certain best practices using frameworks like Dimensions of Learning, learning styles and brain-based learning in teaching mixed ability students will be shared. A thematic approach to teaching Economics using a variety of instructional methods in Singapore junior college setting is adopted. The thrust is how Economics may be taught, including the teaching and learning of concepts and principles, using economic data and case studies in Economics, group work and developing thinking skills. Student teachers will work with their peers through micro-teaching where peer critique is embedded for a richer learning experience. Emphasis is given to building a student-centred environment to enhance the teaching and learning of Economics. A mixed mode delivery approach is used to cater to the student

teachers' needs and to expose them to a repertoire of strategies and methods for teaching and learning in an outcomes-focused, technology rich environment. This course will lay a foundation for further pedagogical approaches in Economics education.

QCO54B Further Strategies Approaches and Assessment of A-Level Economics

There are two parts to this module: (a) Assessment of A-level Economics for Singapore candidates, which includes discussion of assessment issues related to the examiners' expectations and the crafting of examination questions and marking schemes. Scrutiny of assessment objectives and past years' examination papers will precede practice in crafting examination questions and marking of scripts. Student teachers will also examine best practices in conducting analysis of students' test and examination scripts, giving of assessment feedback and teaching strategies for guiding students to write essays and answer case study questions. (b) Further instructional approaches which will extend discussion to the development of learning communities, flipped classroom and the use of ICT.

QCO54C Motivating Students to Learn and Appreciate Economics in the Real-World Context

The mixed-mode delivery framework of motivating students in learning Economics is taken further in this module when student teachers are exposed to using games and mobile applications as pedagogical tools; field-trips and authentic learning environments for applying economics theories in practice. Creating an Economic Resource Package involves building engaging resources and this will provide first-hand exposure to student teachers in preparing for their day-to-day lessons as well as organising enrichment activities for students.

They will learn how to unpack the syllabus in order to teach the subject more meaningfully. Student teachers will also be exposed to the use of video vignettes and articles from news stations as useful pedagogical tools to motivate students to appreciate the workings of Economics theories in reality.

QCO54D Reflective Practice in Economics Learning Environment

The learning environment is vital to student success and impacts students in many ways. In this module, we examine the impact of applying the Mixed Mode delivery model to improve teaching and learning experience through reflective practice. In this process of using research to inform practices and impact on students' learning, we will cover common problems in teaching practice and concerns about students' difficulty learning a particular topic in the course and their perceptions and attitude towards the learning environment. This will in turn affect their self-efficacy in teaching the subject too. Through engagement with students, student teachers discover ways to improve action plan in light of their experience and feedback from the school teachers and students and encourage self-directed learning.

The Teaching of General Paper

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QGP54A | The Practice of Teaching General Paper | Core | 2 | - |
| QGP54B | Aims and Approaches to the Teaching of General Paper | Core | 6 | - |
| QGP54C | Experiences in the Teaching of General Paper | Core | 3 | - |

QGP54A The Practice of Teaching General Paper

This course applies the theory and content acquired in previous courses to a practical real-world context. In preparation for their Teaching Practicum, preservice teachers are required to design and execute an effective and engaging lesson plan culminating in a micro-teaching experience that will draw upon their knowledge of curriculum, pedagogy and assessment. This course also provides the opportunities to meet and learn from teachers, school leaders and invited speakers so that they have a stronger teacher identity and commitment to their mission as teachers.

QGP54B Aims and Approaches to the Teaching of General Paper

This course is designed to provide student teachers with the knowledge and skills to teach GCE 'A' Level General Paper. It examines teaching approaches and practical strategies for facilitating the development of critical language and thinking skills that are crucial to the student of the General Paper. Given its interdisciplinary nature, the course addresses key issues and challenges related to the teaching of the General Paper and examines key approaches and strategies for teaching critical reading, writing, speaking and listening skills. Classroom skills like lesson planning, discussion facilitation and resource

selection which cover a broad range of topics are also developed. An integrated and holistic approach is taken so that the approaches and strategies for teaching all the key skills in reading, writing and thinking are examined concurrently with discussions on content development and assessment.

QGP54C Experiences in the Teaching of General Paper

This course presents preservice teachers with an opportunity to enhance their practical teaching skills in General Paper. Student teachers will be given practical instruction on delivering General Paper lessons in different modes, including lectures, seminars, tutorials and online discussions and will be taught strategies to carry out both formative and summative assessment. To learn practical and effective teaching strategies for problem-solving through the unit planning process, they will also analyze a problem scenario in the teaching of General Paper, design a lesson unit in groups to address the problem and critically reflect on their learning from this process.

The Teaching of Geography

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|---|-----------------|-----------|----------------|
| QCG54A | Geographical Understanding for Advanced Level | Core | 3 | - |
| QCG54B | Connecting Theory & Practice in Teaching Geography for Advanced Level | Core | 3 | - |
| QCG54C | Assessing Learning in Geography for Advanced Level | Core | 1 | - |

QCG54A Geographical Understanding for Advanced Level

This course aims to extend student teachers' conceptual understanding of Geography to the themes in the "A" levels Geography syllabus. The student teachers will explore geographical concepts, content and skills that are essential for classroom teaching at this level.

QCG54B Connecting Theory & Practice in Teaching Geography for Advanced Level

This course aims to equip student teachers with the pedagogical content knowledge and skills to teach geography to A-level students. Focused on the practical aspects of teaching and learning, it addresses the relationships among fundamental aspects of teaching and learning: advanced level geographical knowledge and skills, advanced level learners, the learning activities and the evidence of learning. It also emphasizes the link between the theories learnt at NIE and the practices in schools. It ensures that the theories learnt at NIE are adequately situated within the context of A-level institutions, by scaffolding the process of applying theory to practice during their practicum.

QCG54C Assessing Learning in Geography for Advanced Level

In this course, student teachers will focus on the assessment of students' geographical understanding at A-level by examining both alternative and traditional forms of assessment.

The Teaching of History

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCH54A | Teaching and Learning History at the A-level | Core | 3 | - |
| QCH54B | Conceptual Learning and Historical Inquiry for A-Level History | Core | 3 | - |
| QCH54C | Assessment for A-Level History | Core | 1 | - |

QCH54A Teaching and Learning History at the A-level

This course is aimed at introducing student teachers to the teaching and learning of history at the JC level, and is designed to raise their awareness of the challenges in teaching history to A-level students. It gives student teachers an insight into the nature and objectives of teaching A-level history, and offers them an opportunity to explore more effective ways to enhance students' learning experiences. Student teachers will be given sufficient opportunities to plan for teaching, develop lesson ideas, and explore innovative ways to enhance the learning of history in the classroom. A specific focus on linking 'theory with practice' will enable student teachers to consider issues related to professional practice as they critically reflect on their own practicum experiences. They will be given ample opportunities to explore ways to manage the issues arising and progressively develop their craft as A-level history teachers.

QCH54B Conceptual Learning and Historical Inquiry for A-Level History

This course aims to develop student teachers' understanding of some of the key concepts that lie at the heart of history and is designed to build disciplinary expertise when engaging A-level students on epistemic issues related to the study of history. Student teachers will develop competency in the teaching of four key historical

concepts that undergird conceptual learning in the A-level history syllabus (namely, causation, change, significance and diversity), and will be given opportunities to craft specific lesson strategies aimed at developing students' thinking in these conceptual areas. Using "historical inquiry" as a framework for teaching and learning, student teachers also will design lesson structures that can help JC students investigate important questions about the past, approach historical study in conceptual terms, and engage students in cognitive tasks that will allow them to construct knowledge in light of the question/s investigated. A focus on conceptual learning through historical inquiry will enable student teachers to develop deeper disciplinary understandings, and cultivate in their students the disposition to think historically about the past.

QCH54C Assessment for A-Level History

This course seeks to expose student teachers to key issues involved in the assessment and evaluation of history at the A-level. It aims to equip student teachers with basic competencies to conduct assessment in the subject, with attention given to the practical aspects of how to assess student learning at the A-level. Informed by assessment objectives and examination requirements for the new A-level history syllabus, the course has been designed to give student teachers ample opportunities at setting source-based and other issues-based essay questions, as well as giving them adequate practice at devising mark schemes and at marking sample answer scripts.

The Teaching of Mathematics

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCM54A | Teaching and Learning of A-Level Mathematics I | Core | 3 | - |
| QCM54B | Teaching and Learning of A-Level Mathematics II | Core | 3 | - |
| QCM54C | Teaching and Learning of A-Level Mathematics III | Core | 1 | - |

QCM54A Teaching and Learning of A-Level Mathematics I

The main objectives of this course is to equip student teachers with (i) teaching principles associated with mathematical problem solving akin to the pre-university context, (ii) the appropriate use of information communication technology (ICT) and graphing calculators (GC) to convey key mathematical ideas, and (iii) the pedagogical principles in the design of tutorial worksheets suited for teaching mathematics at A-Level.

QCM54B Teaching and Learning of A-Level Mathematics II

The main objective of this course is to equip student teachers with (i) relevant pedagogical content knowledge associated with the teaching of mathematics at A-Level (H1, H2 and H3), and (ii) the pedagogical principles underpinning successful lesson implementation for classroom teaching.

QCM54C Teaching and Learning of A-Level Mathematics III

The main objective of this course is to equip student teachers with (i) didactical principles associated to lectures and management of learning in large groups, and (ii) designing relevant learning experiences for various topics in the A-Level mathematics syllabus (H1, H2 and H3).

The Teaching of Physics

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QCP54A | Teaching and Learning of A-level Physics | Core | 3 | - |
| QCP54B | Assessment in A-level Physics | Core | 3 | - |
| QCP54C | Designing Learning Objects for Teaching and Learning of A-level Physics Topics | Core | 1 | - |

QCP54A Teaching and Learning of A-level Physics

This course focuses on the pedagogy and lesson planning for A-level physics. The course will examine the A-level physics curriculum in Singapore schools, and identify common students' learning difficulties and conceptions in understanding physics at a higher educational level. It will explore different teaching and learning strategies, including the use of ICT, to develop students' understanding in large and small group settings. This course also provides student teachers with the opportunity to practice the relevant skills in conducting lectures and tutorials.

QCP54B Assessment in A-level Physics

This course aims to develop student teachers' knowledge and skills in different modes of assessment and laboratory work. It seeks to develop student teachers' skills in development of physics tests, marking and analyzing of test papers. It also prepares student teachers in the development and assessment of students' practical skills. It will also explore formative assessment strategies appropriate for large group and small group settings. It examines critical issues pertaining to assessment and evaluation of A-level Physics learning.

QCP54C Designing Learning Objects for Teaching and Learning of A-level Physics Topics

This course aims to develop student teachers to become learning designers as they are engaged in solving teaching and learning problems in A-level physics. Student teachers will identify a teaching and learning challenge in A-level physics, and design a learning object, informed by literature, that support pupils in learning a particular concept in physics.

Knowledge Skills

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|--|-----------------|-----------|----------------|
| QKS54A | Knowledge Skills: Project Work | Core | 1 | - |
| QKS54B | Knowledge Skills: Critical Literacy Skills | Core | 1 | - |
| QKS54C | Knowledge Skills: Multidimensional Thinking Skills | Core | 1 | - |

QKS54A Knowledge Skills: Project Work

This course provides student teachers with opportunities to critically explore the educational potential of Project Work (PW) as a curricular form and pedagogy for developing twenty-first century competencies (e.g. critical thinking skills, inventive thinking skills, integrative thinking skills, ethical reasoning skills, civic and global literacies, collaboration skills, communication skills). This course helps student teachers to develop insights into how PW might be used to facilitate the development of competencies that are vital for both academic and professional success in the twenty-first century. In the first half of the course, student teachers will reflect on their own PW experiences as learners: What worked for them? What frustrated them? What motivated them? Student teachers will also have a chance to hear about the experiences of current PW teachers and students. In the second half of the course, student teachers will be invited to reimagine teaching and learning in PW: How might they make PW meaningful for both students and teachers?

QKS54B Knowledge Skills: Critical Literacy Skills

This course introduces interdisciplinary and cross-disciplinary strategies for promoting the skills of critical literacy at junior colleges and other pre-university institutions. While not designed to be exhaustive, it aims to equip student teachers with the theoretical knowledge

and pedagogical practice to promote critical literacy within their disciplinary contexts and in the larger school environment. Designed first and foremost to be practical, the course adopts a wide definition of critical literacy in order to encourage student teachers to innovate and consider new methods and approaches in the areas of teaching, learning and thinking.

QKS54C Knowledge Skills: Multidimensional Thinking Skills

Education today aims to prepare students to deal intelligently and creatively with an increasingly complex and dynamic world. JC education in particular seeks to prepare future leaders with the desire and ability to address and resolve serious issues confronting society. Real world situations often require solutions and strategies that cut across various domains of knowledge, thought, and practice team work and other collaborative skills are needed to reconcile or balance competing ways of knowing, thinking and doing. This course is designed with a view to addressing these pedagogical challenges for the new JC teacher. It aims to give them a basic understanding of the four main forms of thinking – critical, creative, interdisciplinary thinking, as well as ethical reasoning – and their interrelations in the understanding of real world problems and their possible resolutions. The course is designed to engage students in the critical reflection of their group based activities in the design and delivery of education projects that would expand the creative as well as moral and intellectual horizons of the JC student.

Practicum

| Course Code | Course Title | Course Category | No of AUs | Pre-requisites |
|-------------|------------------------|-----------------|-----------|----------------|
| QPR54A | Teaching Assistantship | Core | 3 | - |
| QPR54B | Teaching Practice | Core | 10 | - |

Teaching Practicum is a very important component of the PGDE 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.

QPR54A Teaching Assistantship

The 4-week Teaching Assistantship provides student teachers with the opportunities to observe their Cooperating Teachers (CTs) teach and to reflect on the roles and responsibilities of a teacher. They will also be given the practical experience of helping their CTs plan lessons, prepare resources, manage pupils, and to do some assisted teaching. During the 4-week stint, the student teachers will return to NIE one day a week, and take part in facilitated discussions to help them better understand their role as teachers and strengthen their application of theory to practice.

QPR54B Teaching Practice

The Practicum comprises a 10-week Teaching Practice (TP), in which 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.