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## **ENQUIRIES**

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

[nieadmtp@nie.edu.sg](mailto: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.

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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**

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## INTRODUCTION

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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 school, secondary school, and junior college teaching. The Physical Education (PE) specialisation is taught in a two-year full-time programme. The other specialisations are taught in one-year full-time programmes.

This PGDE programme is administered by the Foundation Programmes Office which is committed to developing educational professionals to be leaders in the service of learners.

### Aims of PGDE Programme

The programme aims to prepare teachers who are **well-informed, competent, and thinking professionals**. These teachers will have an understanding of the key concepts and principles of teaching and learning and should be able to **implement, analyse and theorise** about key instructional processes.

The PGDE programme is designed to prepare student teachers to:

- (a) have the knowledge and skills to teach in primary schools, secondary schools or junior colleges;
- (b) be aware of and sensitive to the needs, abilities, interests and aptitudes of students in schools;
- (c) be able to teach students of different abilities, interests and backgrounds effectively and creatively;

- (d) be committed to the nurturing and development of the students in their charge; and
- (e) be committed to self-initiated and sustained professional development.

### **Duration of Programme**

The PGDE programme is of one academic year's duration (an academic year consists of two semesters). It leads to the award of the Postgraduate Diploma in Education, with specialisations in primary education, secondary education, junior college education. Student teachers in the PGDE programme are further sub-divided into two categories: "General" and "Language Specialisation".

The PGDE (PE) programme is of two academic years' duration. It leads to the award of the Postgraduate Diploma in Education with specialisation in Physical Education at the Secondary level.

## **The Academic Unit System**

The Institute adopts the Academic Unit System. Academic Units are used to measure academic workload per semester and per academic year. The academic year is currently divided into two semesters.

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

## Academic Calendar

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

### Academic Year 2009-2010

Programme	Dates of Orientation (O+) Semester (S) / Recess (R) / Vacation (V)	Dates of Revision/ Examination	Dates of Practicum
PGDE (Pri/Sec/JC) (Jul 2009 Intake)	O : 27 Jul 2009 – 31 Jul 2009 S1: 03 Aug 2009 – 04 Dec 2009 V : 05 Dec 2009 – 10 Jan 2010  S2: 11 Jan 2010 – 11 Jun 2010 R : 13 Mar 2010 – 21 Mar 2010	-  Compulsory Enrichment Programme up to 11 Jun 2010	Nil  22 Feb 2010 – 07 May 2010* (10 weeks of Teaching Practice)
PGDE (PE) Year 1	O : 27 Jul 2009 – 31 Jul 2009 S1: 03 Aug 2009 – 04 Dec 2009 V : 05 Dec 2009 – 10 Jan 2010  S2: 11 Jan 2010 – 07 May 2010 R : 27 Feb 2010 – 07 Mar 2010 V : 08 May 2010 – 22 Aug 2010**	14 Nov 2009 – 04 Dec 2009  17 Apr 2010 – 07 May 2010	Nil  05 Jul 2010 – 06 Aug 2010 (5 weeks of Teaching Practice 1 during the vacation before Year 2)
PGDE (PE) Year 2	S1: 03 Aug 2009 – 04 Dec 2009 V : 05 Dec 2009 – 10 Jan 2010  S2: 11 Jan 2010 – 11 Jun 2010 R : 13 Mar 2010 – 21 Mar 2010	14 Nov 2009 – 04 Dec 2009  Compulsory Enrichment Programme up to 11 Jun 2010	Nil  22 Feb 2010 – 07 May 2010* (10 weeks of Teaching Practice 2)
PGDE (S) (Jan 2009 Intake)	O : 02 Jan 2009 – 09 Jan 2009 S1: 12 Jan 2009 – 29 May 2009 V : 30 May 2009 – 28 Jun 2009  S2: 29 Jun 2009 – 27 Nov 2009 R : 05 Sep 2009 – 13 Sep 2009	-  Compulsory Enrichment Programme up to 27 Nov 2009	Nil  29 Jun 2009 – 04 Sep 2009 (10 weeks of Teaching Practice)
PGDE (S) (Jan 2010 Intake)	O : 04 Jan 2010 – 08 Jan 2010 S1: 11 Jan 2010 – 28 May 2010 V : 29 May 2010 – 27 Jun 2010  S2: 28 Jun 2010 – 26 Nov 2010 R : 04 Sep 2010 – 12 Sep 2010	-  Compulsory Enrichment Programme up to 26 Nov 2010	Nil  28 Jun 2010 – 03 Sep 2010 (10 weeks of Teaching Practice)
PGDELT	O : 28 Jul 2009 - 07 Aug 2009 S1: 10 Aug 2009 – 04 Dec 2009 R : 26 Sep 2009 – 04 Oct 2009 V : 05 Dec 2009 – 10 Jan 2010  S2: 11 Jan 2010 – 07 May 2010 R : 27 Feb 2010 – 07 Mar 2010	14 Nov 2009 – 04 Dec 2009  -	Nil  Nil

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

\*\* Practicum starts within vacation period.

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## APPLICATIONS

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### **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 provided sponsorship by the Ministry and will have to abide by 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/>

### **Direct Application to NIE**

Candidates can apply for entry into the Postgraduate Diploma in Education Programme directly to NIE on a full fee-paying basis. Application forms can be downloaded from the website at <http://www.nie.edu.sg/foundation/admissions>

### **Application Closing Date**

The programme commences in July. Although applications are accepted throughout the year, it is advisable to submit applications early to be considered for admission.

### **Entry Requirements for the PGDE Programme**

To be considered for admission, applicants should have at least a degree from the Nanyang Technological University, the National University of Singapore or other universities whose degrees are acceptable to the education service of Singapore.

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 at secondary school level. The audition will include at least one of the following: performance of prepared pieces on first and/or second instruments; sight reading on first instrument; sight singing; harmonising a simple melody on piano; or improvising a simple piece.
- an art-focused interview for applicants shortlisted to teach Art at secondary school level.

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.**

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## **EXAMINATIONS, ASSESSMENT OF COURSEWORK & PRACTICUM**

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Different modes of assessment have been built into the coursework. These include tests/practical tests, assignments, project work, progress ratings 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 responsible for ensuring that they register for all the courses and examinations necessary to fulfil the requirements of their programme of study. Student teachers are not allowed to 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. Credits earned in other approved institutions will be excluded from CGPA computation. Under normal circumstances, no candidate will be permitted to take more than two years or, in the case of a candidate specialising in Physical Education, more than three years, to complete the programme of study and pass the examination for the Postgraduate Diploma in Education.

## 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.

- 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

- The following non-letter grades and notations are also used, but will not be counted in computation of CGPA:

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

- 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 be both reflected on the transcript. Both grades will also be counted in the computation of CGPA. No AU is earned for courses with 'F' grade.
- 6 Student teachers are not allowed to repeat any courses taken except those with 'F' grade.
- 7 **The requirements for graduation are as follows:**
  - a) Successful completion of the prescribed academic unit requirement as set out by the programme curriculum.
  - b) A minimum CGPA of 2.00 is required at the end of the final semester of study.
- 8 **The criteria for satisfactory academic standing in any given semester are:**
  - a) Maintaining a minimum CGPA of 2.00
  - b) Completing at least 75% of the normal AU workload
- 9 **Student teachers with poor standing will be subjected to the following performance review:**
  - a) Academic Warning – if the CGPA falls below 2.00 for any given semester.

- b) Academic Probation – if the CGPA falls below 2.00 for the following semester
- c) Academic Termination – if the CGPA falls below 2.00 for the 3<sup>rd</sup> 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 1<sup>st</sup> 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.

## Classification of Student Teachers

Student teachers specialising in the Teaching of Physical Education are classified as Year 1 and Year 2 student teachers according to the number of academic units earned as shown below:

<b>Programme</b>	<b>Number of Academic Units Earned</b>	
	<b>Year 1</b>	<b>Year 2</b>
PGDE (PE)	0 – 26	27 and above

## **Group Endeavours in Service Learning (GESL) Project**

Group Endeavours in Service Learning (GESL) is a compulsory project work that all student teachers are required to undertake. Student teachers in an assigned group are to collaboratively complete a project in a community service within the programme of study. Student teachers will benefit from the GESL experience in acquiring generic knowledge and skills of project management in service-learning. Groups will showcase their completed projects and a record of GESL involvement will be issued at the end of the programme.

## **English Language Content Enhancement (ELCE)**

All student teachers in the PGDE (General, Primary) programme as well as student teachers taking English Language as their Curriculum Studies (CS) in the PGDE Secondary programme are required by the Ministry of Education to complete a series of 3 English Language Content Enhancement courses. Spread over the PGDE programme as well as their first year of teaching, ELCE courses are 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.

## **Talks, Seminars, Workshops and Other Activities**

During the period of training, student teachers are expected not only to study diligently but also to participate actively in talks, seminars, workshops and other activities organised for them, such as the National Education programme and the Induction Seminar. These activities form an integral part of the programme.

## **Plagiarism and Copyright**

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 your programme of study. Student teachers should not plagiarise or pass off as one's own, the writing or ideas of another, without acknowledging or crediting the source from which the ideas are taken.

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

## **ACADEMIC STRUCTURE OF PROGRAMME**

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## STRUCTURE OF PGDE PROGRAMME

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### **Core Courses & Prescribed Electives**

The main areas of study for the PGDE programme are classified under core courses and prescribed electives:

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

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

Each course is assigned **academic units (AUs)**. Minimum AU requirements for completing the PGDE programme are shown in Table 1 below:

**Table 1 : A Summary of the Academic Unit Requirements for the PGDE Programme**

Programme	Specialisation Section	Year of Study	Core Courses, Prescribed Electives & Practicum	Total
<b>PGDE</b>	<b>Primary</b>			
	Teaching General Subjects at Primary Level	1	44	44
	Teaching of CL/ML/TL at Primary Level	1	40	40
	<b>Secondary</b>			
	Teaching General Subjects at Secondary Level (Two Curriculum Studies)	1	38 <sup>+</sup>	38 <sup>+</sup>
	Teaching General Subject at Secondary Level (One Curriculum Studies)	1	33	33
	Teaching of CL/ML/TL at Secondary Level	1	40	40
	Teaching of Physical Education at Secondary Level	1 2	35 32	67
	<b>Junior College</b>			
	Teaching General Subject at Junior College Level	1	38/41 <sup>^</sup>	38/41 <sup>^</sup>

+ Student teachers taking Malay Language or Tamil Language as their second teaching subject will require an additional 2 AUs to complete the PGDE programme.

^ Student teachers taking Economics as their teaching subject will require an additional 3 AUs to complete the PGDE programme.

## **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)

Student teachers in the PGDE (Physical Education, Secondary) programme are required to offer a fifth component of Academic Subject.

Student teachers in the PGDE (General, Primary) programme for Option A are required to offer a fifth component of Subject Knowledge.

Student teachers in the PGDE (General, Secondary) One Curriculum Studies programme are required to offer a fifth component of Pedagogical Content Knowledge or Craft Knowledge.

Student teachers in the PGDE (General, Junior College) programme are required to offer a fifth component of Knowledge Skills.

## **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 the methodology for teaching at either the primary school level, secondary school level or junior college level. These are designed to give student teachers the pedagogical skills in teaching specific subjects in Singapore schools.

### PGDE (Primary)

There are three options in the PGDE (General, Primary) programme. Student teachers opting for Option A will offer two Curriculum Studies areas and Subject Knowledge courses aligned to the two Curriculum Studies areas. Those opting for Option B will offer Curriculum Studies areas in English Language and Mathematics as well as lower primary integrated courses. Those opting for Option C will offer three Curriculum Studies areas.

The following are PGDE (Primary) Curriculum Studies subjects:

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

Those specialising in **Teaching Chinese, Malay or Tamil Language at the Primary level** have the following Curriculum Studies subjects:

- CS1: The Teaching of Chinese/Malay/Tamil Language
- CS2: The Teaching of Moral Education  
(Chinese/Malay/Tamil)

PGDE (Secondary)

(1) Two Curriculum Studies

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

Those specialising in **Teaching Chinese, Malay or Tamil Language at the Secondary level** will offer the following Curriculum Studies subjects:

CS1: The Teaching of Chinese/Malay/Tamil  
Language

CS2: The Teaching of Chinese/Malay/Tamil  
Literature

PGDE (Secondary) Physical Education student teachers who are specialising in **Teaching of Physical Education** will take Curriculum Studies in Physical Education as their CS1 throughout two-year programme. In Year 2, they will offer another Curriculum Studies subject as their CS2.

(2) One Curriculum Studies

PGDE (Secondary) student teachers will specialise in the methodology for teaching one subject at secondary school level. There are two track options as follows:

Track A: Increasing the depth of pedagogical content knowledge (PCK) through two additional courses that provide the student teachers with a deeper understanding of the theories, principles, concepts and the content knowledge in learning to teach in the curriculum subjects.

Track B: Strengthening the theory-practice link through additional exposures to teaching situations that provide student teachers with the contextual experience for shaping their development of craft knowledge. Craft knowledge is defined as the teachers' professional knowledge acquired through practical experience in the classroom. It also helps teachers understand the linkages between theory and practice.

### PGDE (Junior College)

PGDE (Junior College) student teachers will specialise in the methodology for teaching one subject at Junior College level and one subject at secondary school level. The Junior College teaching subject must be aligned to the Secondary teaching subject, with the exception of Economics.

### **Practicum**

This group of courses is compulsory and is to be taken by all student teachers.

### **Language Enhancement & Academic Discourse Skills (LEADS)**

This component is aimed at improving the use of oral and written language in teaching.

### **Academic Subject**

Student teachers who specialise in the Teaching of Physical Education will be required to read one Academic Subject which will be Physical Education.

## **Subject Knowledge**

Student teachers in the PGDE (General, Primary) programme for Option A are required to read subject knowledge courses aligned to the two Curriculum Studies areas. This group of courses helps to strengthen and reinforce the subject knowledge of the student teachers in the content for upper primary school teaching.

## **Pedagogical Content Knowledge/ Craft Knowledge**

Student teachers in the PGDE (General, Secondary) One Curriculum Studies programme for Track A are required to read Pedagogical Content Knowledge courses that provide the student teachers with a deeper understanding of a subject within the Singapore school curriculum.

Student teachers in the PGDE (General, Secondary) One Curriculum Studies programme for Track B are required to read Craft Knowledge courses that enable the student teachers to acquire teachers' professional knowledge through practical experience in the classroom and help student teachers understand the linkages between theory and practice.

## **Knowledge Skills**

Student teachers in the PGDE (General, Junior College) programme are required to read a Knowledge Skills course that helps to develop the attitudes, knowledge and skills expected of Junior College teachers.

**PGDE PROGRAMME  
TEACHING AT PRIMARY LEVEL**

## CURRICULUM STRUCTURE

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

**Table 2: Curriculum Structure of the PGDE (General, Primary) Programme**

Category/ Subject	Course Code	Title	No. of AUs
<b>EDUCATION STUDIES</b>			
	QED501	Educational Psychology I: Theories and Applications for Learning and Teaching	2
	QED504	The Social Context of Teaching and Learning	2
	QED505	Educational Psychology II: Teaching and Managing Diverse Learners in the Classroom	2
	QED507	ICT for Meaningful Learning	2
<b>CURRICULUM STUDIES (Select one from options A, B and C)</b>			
<b>Option A (Select 2 Curriculum Studies areas)</b>			
Art	QCA501	Working with Two-Dimensional Artistic Processes	3
	QCA502	Teaching of Art at Primary level	2
	QCA503	Working with Three-Dimensional Artistic Processes	3
English Language	QCE501	Teaching Reading and Writing	6
	QCE502	Teaching Oral Communication	2
Mathematics	QCM501	Teaching and Learning of Primary Mathematics I	6
	QCM502	Teaching and Learning of Primary Mathematics II	2
Music	QCI501	Music Curriculum I	3
	QCI502	Music Curriculum II	3
	QCI503	Music Curriculum III	2
Science	QCS501	Curriculum and Pedagogy for Primary Science	3
	QCS502	Assessment Modes and Resource Management in Primary Science	3
	QCS503	Innovations in Design and Practices for Primary Science	2
Social Studies	QCL501	Teaching Social Studies in the Primary Classroom I	4
	QCL502	Teaching Social Studies in the Primary Classroom II	2
	QCL503	Managing Diversity in the Social Studies Classroom	2

Cont'd

Category/ Subject	Course Code	Title	No. of AUs
<b>Option B</b>			
English Language	QCE501	Teaching Reading and Writing	6
	QCE502	Teaching Oral Communication	2
Mathematics	QCM501	Teaching and Learning of Primary Mathematics I	6
	QCM502	Teaching and Learning of Primary Mathematics II	2
<b>Option C (Select 3 Curriculum Studies areas)</b>			
Art	QCA501	Working with Two-Dimensional Artistic Processes	3
	QCA502	Teaching of Art at Primary level	2
	QCA503	Working with Three-Dimensional Artistic Processes	3
English Language	QCE501	Teaching Reading and Writing	6
	QCE502	Teaching Oral Communication	2
Mathematics	QCM501	Teaching and Learning of Primary Mathematics I	6
	QCM502	Teaching and Learning of Primary Mathematics II	2
Music	QCI501	Music Curriculum I	3
	QCI502	Music Curriculum II	3
	QCI503	Music Curriculum III	2
Science	QCS501	Curriculum and Pedagogy for Primary Science	3
	QCS502	Assessment Modes and Resource Management in Primary Science	3
	QCS503	Innovations in Design and Practices for Primary Science	2
Social Studies	QCL501	Teaching Social Studies in the Primary Classroom I	4
	QCL502	Teaching Social Studies in the Primary Classroom II	2
	QCL503	Managing Diversity in the Social Studies Classroom	2
<b>SUBJECT KNOWLEDGE (for Option A only)</b>			
<b>Subject Knowledge courses aligned to the two Curriculum Studies areas</b>			
Art	QCA504	Visual Arts and New Media Technologies	2
	QCA505	Children's Use and Organisation of Semiotic Systems	2
English Language	QSE502	Study of Texts in the Upper Primary English Curriculum	4
Mathematics	QSM501	Number Topics	2
	QSM502	Geometry Topics	2
Music	QSI501	General Musicianship I	2
	QSI502	General Musicianship II	2
Science	QSS501	Topics in Physical Science for Primary Science Teaching	2
	QSS502	Topics in Biological Science for Primary Science Teaching	2
Social Studies	QSL501	History for Social Studies	2
	QSL502	Geography for Primary Social Studies	2

Cont'd

Category/ Subject	Course Code	Title	No. of AUs
<b>LOWER PRIMARY INTEGRATED COURSES (for Option B only)</b>			
	QCW501	Teaching Lower Primary 1	4
	QCW502	Teaching Lower Primary 2	4
<b>PRACTICUM</b>			
	QPR501	Teaching Practice	10
<b>LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS</b>			
	QLK501	Communication Skills for Teachers	2

Note: In addition to the core courses and the required number of prescribed electives, student teachers are required to undertake a compulsory Group Endeavours in Service Learning (GESL) project – QGS501. Description of GESL projects is available in page 13.

Student teachers in the PGDE (General, Primary) programme are also required to undertake English Language Content Enhancement (ELCE) courses. Description of ELCE is available in page 13.

**Table 3: Curriculum Structure of the PGDE  
(Chinese/Malay/Tamil, Primary) Programme**

Category/ Subject	Course Code	Title	No. of AUs
<b>EDUCATION STUDIES</b>			
	QED501	Educational Psychology I: Theories and Applications for Learning and Teaching	2
	QED504	The Social Context of Teaching and Learning	2
	QED505	Educational Psychology II: Teaching and Managing Diverse Learners in the Classroom	2
	QED507	ICT for Meaningful Learning	2
<b>CURRICULUM STUDIES (Select either Chinese, Malay or Tamil)</b>			
<b>Chinese</b>			
Chinese Language	QCC501	Teaching of Chinese Language 1	4
	QCC502	Teaching of Chinese Language 2	1
	QCC503	Teaching of Chinese Language 3	5
	QCC504	Teaching of Chinese Language 4	2
Moral Education (Chinese)	QCZ501	Teaching of Civics and Moral Education 1 (Chinese)	3
	QCZ502	Teaching of Civics and Moral Education 2 (Chinese)	3
<b>Malay</b>			
Malay Language	QCD501	Teaching of Malay Language (Pri) 1	3
	QCD502	Teaching of Malay Language (Pri) 2	3
	QCD503	Teaching of Malay Language (Pri) 3	3
	QCD504	Teaching of Malay Language (Pri) 4	3
Moral Education (Malay)	QCZ503	Teaching of Civics and Moral Education 1 (Malay)	3
	QCZ504	Teaching of Civics and Moral Education 2 (Malay)	3
<b>Tamil</b>			
Tamil Language	QCT501	Teaching of Tamil Language I	4
	QCT502	Teaching of Tamil Language II	2
	QCT503	Teaching of Tamil Language III	3
	QCT504	Teaching of Tamil Language IV	3
Moral Education (Tamil)	QCZ505	Teaching of Civics and Moral Education I (Tamil)	3
	QCZ506	Teaching of Civics and Moral Education II (Tamil)	3
<b>PRACTICUM</b>			
	QPR501	Teaching Practice	10

Cont'd

Category/ Subject	Course Code	Title	No. of AUs
<b>LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS</b>			
	QLK501	Communication Skills for Teachers	2
Select the same language as in Curriculum Studies	QLC501	Use of Chinese in Teaching	2
	QLM501	Use of Malay in Teaching I	1
	QLM502	Use of Malay in Teaching II	1
	QLT501	Use of Tamil in Teaching I	1
	QLT502	Use of Tamil in Teaching II	1

Note: In addition to the core courses and the required number of prescribed electives, student teachers are required to undertake a compulsory Group Endeavours in Service Learning (GESL) project – QGS501. Description of GESL projects is available in page 13.

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## CONTENTS OF COURSES

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### EDUCATION STUDIES

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QED501	Educational Psychology I: Theories and Applications for Learning and Teaching	Core	2	-
QED504	The Social Context of Teaching and Learning	Core	2	-
QED505	Educational Psychology II: Teaching and Managing Diverse Learners in the Classroom	Core	2	-
QED507	ICT for Meaningful Learning	Core	2	-

#### **QED501 Educational Psychology I: Theories and Applications for Learning and Teaching**

Educational Psychology I focuses on the psychological principles of learning and development and their application to classroom teaching and learning processes. Student teachers study how children develop cognitively, emotionally and physically and the implications for how students learn. The course addresses these key areas: Human development; Moral development; Self-esteem and self-concept; Cognitive approaches to learning; Motivation and attributions; Thinking and intelligence; and Assessment.

## **QED504 The Social Context of Teaching and Learning**

This course will introduce student teachers to the Singapore education system. Student teachers will learn how the school system functions to socialize citizens for economic, political, and social roles in the context of a multi-ethnic and multicultural society. They will also have the opportunity to study the rationale of major education policies and to appreciate the impact that such policies have on school leaders, teachers, students and other stakeholders. At the same time, they will be made aware of the diverse and multiple roles that are played by teachers in the education system.

## **QED505 Educational Psychology II: Teaching and Managing Diverse Learners in the Classroom**

Students with diverse abilities and needs are increasingly found in mainstream schools in Singapore. Greater diversity among students requires a wide range of pedagogical approaches that are inclusive of the learning needs of all and yet responsive to individual abilities. This course seeks to help student teachers understand the characteristics and needs of diverse learners and how to cater to their needs. This course which is designed for primary school teachers also seeks to help student teachers develop their personal pedagogy, acquire and apply basic knowledge and skills in relation to creating conducive learning environments, managing and facilitating teaching and learning activities, and school/classroom discipline. The importance of the practice of proactive classroom management and positive teacher-student relationship will also be emphasized.

## **QED507 ICT for Meaningful Learning**

This course prepares student teachers to engage learners in meaningful learning by using ICT-mediated activities. Student teachers will learn to analyse the affordances of ICT tools for various pedagogical applications, including ICT-mediated collaborative and self-directed learning, which are the goals for the ICT Masterplan 3. Student teachers will also analyse critical issues related to ICT-mediated instruction, such as managing an ICT-based classroom and cyberwellness. Student teachers will be assessed for their skills and knowledge in designing meaningful ICT-mediated teaching and learning activities.

## CURRICULUM STUDIES

### The Teaching of Art

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QCA501	Working with Two-Dimensional Artistic Processes	Core	3	-
QCA502	Teaching Art at Primary Level	Core	2	-
QCA503	Working with Three-Dimensional Artistic Processes	Core	3	-

#### **QCA501 Working with Two-Dimensional Artistic Processes**

This course looks into the practices of art-appreciation through critical studies, as well as through a range of two-dimensional art activities. These activities will be designed to increase student-teachers' understanding of the creative thinking and practical processes involved in teaching art at primary-school level. Students will be encouraged to consider the multiple aspects of two-dimensional artistic processes, including those which are imaginative, expressive and experimental. The importance of *play* in the development of artistic processes will be discussed. The intention is to create a visual-arts classroom in the primary-school which is dynamic and learner-centred.

#### **QCA502 Teaching Art at Primary Level**

The course will equip beginning teachers with the knowledge and skills needed in the teaching of art in primary schools. It will give a brief overview of the history of art education. The course will also introduce important classical and contemporary theories of childhood development in the visual arts. The pedagogical implications of these theories will be

discussed. In addition, the course will examine MOE's latest art syllabus as well as other initiatives in the arts that influence art education in primary schools and beyond.

### **QCA503 Working with Three-Dimensional Artistic Processes**

This course looks into the practices of art appreciation through studio-based, practical, three-dimensional activities and through critical-studies. The intention is to increase student-teachers' understanding of the creative thinking and practical processes involved in primary-school art teaching and learning.

## The Teaching of Chinese Language

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QCC501	Teaching of Chinese Language 1	Core	4	-
QCC502	Teaching of Chinese Language 2	Core	1	-
QCC503	Teaching of Chinese Language 3	Core	5	-
QCC504	Teaching of Chinese Language 4	Core	2	-

### QCC501 Teaching of Chinese Language 1

This course aims to provide student teachers with the basic theories and concepts related to language and language teaching at primary level, with special reference to Chinese. Its objective is to enable student teachers to design their own lesson plans with confidence, embolden by sound theoretic knowledge.

### QCC502 Teaching of Chinese Language 2

This course focuses on the teaching of the written forms of words.

### QCC503 Teaching of Chinese Language 3

This course aims to equip student teachers with techniques in the teaching of different language skills. Student teachers will acquire a comprehensive understanding of the various teaching methods and various practical techniques.

## **QCC504 Teaching of Chinese Language 4**

Student teachers will be introduced to basic concepts of Chinese language testing, the procedures of language testing, the effective ways of setting various types of questions and the cognitive levels involved.

## The Teaching of Civics and Moral Education (Chinese)

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QCZ501	Teaching of Civics and Moral Education 1 (Chinese)	Core	3	-
QCZ502	Teaching of Civics and Moral Education 2 (Chinese)	Core	3	-

### **QCZ501 Teaching of Civics and Moral Education 1 (Chinese)**

The historical background of moral education in Singapore schools. An overview of the primary school Civics and Moral Education programme. The selection of relevant materials for the teaching of moral education. The various approaches to the teaching of moral education. Hands-on experience and the preparation of teaching plans.

### **QCZ502 Teaching of Civics and Moral Education 2 (Chinese)**

The course deals with IT resources and children's literature as well as their use in the teaching of civics and moral education, in arousing pupils' interest and stimulating thinking.

## The Teaching of English Language

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QCE501	Teaching Reading and Writing	Core	6	-
QCE502	Teaching Oral Communication	Core	2	-

### QCE501 Teaching Reading and Writing

This course will equip student teachers with the knowledge of processes and strategies in the teaching of reading and writing at the primary level. Student teachers will acquire knowledge of how language is learned at home and in school, and how oracy, reading and writing can be integrated and taught in the lower and upper primary classroom. Student teachers will become familiar with the learning outcomes of the Primary English Syllabus, methods of monitoring, evaluating and diagnosing pupils' language skills. They will learn how to use children's literature as a significant resource for teaching reading and writing.

### QCE502 Teaching Oral Communication

This course will focus on processes and strategies for teaching oral communication skills in English. Student teachers will learn strategies and appropriate activities to help develop speakers and listeners in the primary classroom. They will become familiar with the learning outcomes for teaching oral communication skills in the Primary English syllabus.

## The Teaching of Malay Language

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QCD501	Teaching of Malay Language (Primary) 1	Core	3	-
QCD502	Teaching of Malay Language (Primary) 2	Core	3	-
QCD503	Teaching of Malay Language (Primary) 3	Core	3	-
QCD504	Teaching of Malay Language (Primary) 4	Core	3	-

### **QCD501 Teaching of Malay Language (Primary) 1**

The theoretical and practical understanding of the Malay Language curriculum in primary schools. Theories and approaches in language learning. Various language teaching and learning methods and techniques. The process of vocabulary acquisition and development, including teaching of Malay proverbs. The use of IT-based materials in the teaching of Malay language.

### **QCD502 Teaching of Malay Language (Primary) 2**

Reading process, the concept of reading “readiness” and the development of reading skills. Methods and strategies in the teaching of reading and reading comprehension including the use of big books and electronic ‘shared’ books in Malay. Reading activities and programmes at the primary level. The teaching of listening and speaking skills.

### **QCD503 Teaching of Malay Language (Primary) 3**

The role and functions of literature in children's development and language education. Exploring and appreciation of Children's literature and other literary materials and sources for development of four language skills. The general principles, methods and techniques in teaching literature.

### **QCD504 Teaching of Malay Language (Primary) 4**

Understanding of the writing process, the various types of writing, the levels of writing skills and the teaching of evaluation of writing skills. Teaching and learning of Malay grammar at primary level. Basic concepts of testing, the construction and administration of tests, developing language tests and alternative assessments in Malay.

## The Teaching of Civics and Moral Education (Malay)

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QCZ503	Teaching of Civics and Moral Education 1 (Malay)	Core	3	-
QCZ504	Teaching of Civics and Moral Education 2 (Malay)	Core	3	-

### QCZ503 Teaching of Civics and Moral Education 1 (Malay)

An introduction to the study of moral education. The aims of moral education and various approaches to the teaching of moral education such as the cultural transmission approach, consideration approach, cognitive developmental approach, values clarification approach and others. An overview of the primary school Moral Education programme. The aims and objectives, the approaches, techniques, strategies and preparation of teaching plans for the teaching of Moral Education.

### QCZ504 Teaching of Civics and Moral Education 2 (Malay)

The concepts, core values in Moral Education and the shared values across different cultures, ethnics and religions in the context of Singapore as a plural society. Hands-on experience and the preparation of specific lessons. The use of IT in the teaching of Moral Education.

## The Teaching of Mathematics

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QCM501	The Teaching and Learning of Primary Mathematics I	Core	6	-
QCM502	The Teaching and Learning of Primary Mathematics II	Core	2	-

### **QCM501 The Teaching and Learning of Primary Mathematics I**

Overview of the Singapore Primary Mathematics Curriculum; NE infusion; Preparation of Scheme of Work and Lesson Plans; Pedagogical Strategies and Psychological Theories; Teaching Problem Solving and Investigations; Mathematical Communication; Teaching of Whole Numbers, Fractions, Decimals, Percentages, Ratio and Direct Proportion, Rate and Speed, Geometry, Money and Measures, Mensuration, Graphical Representation and Statistics, Algebra. [ICT, use of calculators and common pupils' errors will be dealt with in the teaching of various topics.]

### **QCM502 The Teaching and Learning of Primary Mathematics II**

This course covers two broad areas: (a) Various traditional assessment modes in Mathematics and the use of these modes in schools to assess pupil performance, in particular, the planning and construction of test items and (b) Practice of teaching skills, including catering for pupils of mixed abilities.

## The Teaching of Music

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QCI501	Music Curriculum I	Core	3	-
QCI502	Music Curriculum II	Core	3	-
QCI503	Music Curriculum III	Core	2	-

### **QCI501 Music Curriculum I**

The application of musicianship skills towards analysing and diagnosing appropriate instructional goals, objectives, music teaching strategies and teaching materials for the primary school in Singapore. Foundational musicianship skills such as singing, keyboard playing, elementary conducting and rehearsal techniques, music reading and aural skills are developed and explored in the context of classroom teaching.

### **QCI502 Music Curriculum II**

This course examines the music syllabus currently taught in Singapore primary schools, focusing on the rationale, background and philosophy of the syllabus. There will be practical experience with the music material used for managing and developing a general music programme. Pedagogies and practices that are suitable at the primary levels will be explored to help student teachers plan and teach a holistic and integrated music curriculum.

### **QCI503 Music Curriculum III**

Further examines and evaluates relevant teaching materials, methods and practices available for the teaching of the primary music curriculum. Different aspects of music teaching and learning processes will continue to be explored to develop an understanding of the music of local and global cultures, creativity and critical thinking skills, current policies and initiatives by the Ministry and their impact on music syllabuses.

## The Teaching of Science

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QCS501	Curriculum and Pedagogy for Primary Science	Core	3	-
QCS502	Assessment Modes and Resource Management in Primary Science	Core	3	-
QCS503	Innovations in Design and Practices for Primary Science	Core	2	-

### **QCS501 Curriculum and Pedagogy for Primary Science**

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

### **QCS502 Assessment Modes and Resource Management in Primary Science**

The course examines the underlying concepts and rationales in primary science assessment. Formal/non-formal methods of assessment as well as the construction and analyses of tests and practical work will be taught. Learners will also know how to use ICT, learning aids and other resources for effective primary science teaching and learning.

## **QCS503 Innovations in Design and Practices for Primary Science**

Beginning teachers will critically reflect on their own planning, instruction and assessment practices from previous courses and during their teaching practicum. In particular, this course will introduce learners to children's ideas in science, strategies for conceptual change, and designing investigative science projects.

## The Teaching of Social Studies

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QCL501	Teaching Social Studies in the Primary Classroom I	Core	4	-
QCL502	Teaching Social Studies in the Primary Classroom II	Core	2	-
QCL503	Managing Diversity in the Social Studies Classroom	Core	2	-

### **QCL501 Teaching Social Studies in the Primary Classroom I**

This course aims to develop within student teachers 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 a variety of classroom-based teaching strategies that are relevant to the Singapore Primary Social Studies syllabus. The historical, geographical and economic concepts and skills in the syllabus will be examined and effective teaching strategies for Social Studies will be explored.

### **QCL502 Teaching Social Studies in the Primary Classroom II**

This course aims to provide student teachers with further strategies for teaching the Singapore Primary Social Studies syllabus. There will be reinforcement of understandings and skills in planning effective units of instruction incorporating the use of inquiry and other pupil-centred strategies. The principles and practice of organizing and conducting fieldwork will also be covered.

**QCL503 Managing Diversity in the Social Studies Classroom**

This course aims to provide student teachers with the knowledge and skills to use an inter-disciplinary approach to teaching Social Studies. The course will also provide them with the knowledge and skills to cater to diversity in the classroom.

## The Teaching of Tamil Language

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QCT501	Teaching of Tamil Language I	Core	4	-
QCT502	Teaching of Tamil Language II	Core	2	-
QCT503	Teaching of Tamil Language III	Core	3	-
QCT504	Teaching of Tamil Language IV	Core	3	-

### QCT501 Teaching of Tamil Language I

The curriculum and methodology for teaching Tamil language. The four language skills, the importance of those skills. Various theoretical approaches to language acquisition and learning. The teaching of reading and writing for the lower primary level, using different approaches and integrating the four language skills. Preparation of the student teacher to teach listening and speaking skills at the primary level. The importance of listening and speaking skills in language teaching, various approaches to the teaching of acceptable pronunciation, stress and intonation and the use of the language laboratory to teach pronunciation and listening. The importance of Standard Spoken Tamil and Tamil word processing.

### QCT502 Teaching of Tamil Language II

The teaching of Tamil alphabet, methods of teaching vocabulary and various practices. Teaching of spelling, dictation, comprehension and composition. The role of IT in teaching alphabet, vocabulary, spelling, dictation, comprehension and composition. The teaching of Tamil poetry and proverbs at the primary level. Emphasis on moral and cultural values through teaching poetry and proverbs through anecdotes and stories.

### **QCT503 Teaching of Tamil Language III**

The teaching of Tamil functional grammar at the primary school level. The place of functional grammar in the study of the second language, error analysis, development of grammatical and communicative competency.

### **QCT504 Teaching of Tamil Language IV**

Basic concepts of testing, the construction and administration of tests, item analysis and developing language tests in Tamil. Testing of four languages skills and further remedial exercises for developing the student teachers' language skills.

## The Teaching of Civics and Moral Education (Tamil)

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QCZ505	Teaching of Civics and Moral Education I (Tamil)	Core	3	-
QCZ506	Teaching of Civics and Moral Education II (Tamil)	Core	3	-

### QCZ505 Teaching of Civics and Moral Education I (Tamil)

The historical background to Moral Education in Singapore Schools, the aims of Moral Education and the aims of Civics and Moral Education and the policy of the Ministry of Education on moral education. The various approaches to the teaching of moral education, viz cultural transmission, cognitive development, consideration and values clarification approaches. Practical classroom skills to conduct moral education lessons effectively through the use of the expository, tutorial and inquiry methods. Special use of role play, puppets and field trips and using electronic media such as IT and video. Classroom management, lesson preparation and grouping pupils for monitoring progress. Familiarisation of student teachers with the CME curriculum to prepare them to teach moral education at the primary level through different approaches.

## **QCZ506 Teaching of Civics and Moral Education II (Tamil)**

Classroom management and strategies in the teaching of moral education. The text books used and the core values such as Love and Humility, Filial Piety, Harmonious Family, Courtesy, Responsibility, Compassion and Loyalty and 28 moral values. Hands-on experience and presentation of specific lessons to enable student teachers to teach the programme effectively. Understanding of cultural practices as important festivals and their values, places of worship and customs and traditions of different people in Singapore. Questions about NE messages, understanding and acceptance among different races in Singapore. The Singapore heritage, the constitution and cultural patterns, insight and understanding of the different races, cultures and religions.

## SUBJECT KNOWLEDGE

### Art

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QCA504	Visual Arts and New Media Technologies	Core	2	-
QCA505	Children's Use and Organisation of Semiotic Systems	Core	2	-

#### **QCA504 Visual Arts and New Media Technologies**

This course shows the role of art processes in new media applications. This course describes recent contemporary art approaches as well as practical and pedagogical projects that serve as a method for introducing student teachers to Art and New Media.

#### **QCA505 Children's Use and Organisation Of Semiotic Systems**

This course will introduce student teachers to children's use and organisation of semiotic systems. Student teachers will learn how, in the child's earliest encounters with representational and expressive media, she realises the key principle of representation. This principle has been termed the 'dual nature' of symbols and signs and derives from the work of Vygotsky.

Student teachers will learn that this dual function shows up especially clearly for children when they engage in art practices. Thus, children learn the foundations of representational and symbolic thought particularly well in art education.

Student teachers will learn how, as the child moves from lower to upper primary school, so she make her entry into the more formal semiotic systems of societies and cultures, including those used in her own society and culture. Pedagogical implications will be considered.

## English Language

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QSE502	Study of Texts in the Upper Primary English Curriculum	Core	4	-

### **QSE502 Study of Texts in the Upper Primary English Curriculum**

This course will equip student teachers with the subject knowledge needed to teach different types of texts at the upper primary level. Student teachers will understand how language is used for different purposes: to narrate, describe, explain, instruct, persuade and argue. They will study both fiction and non-fiction and how to identify and analyze organizational structure, key language features and visuals in these texts. Through tutorial activities, they will see how all these features of texts combine to create meaning for writers and readers.

## Mathematics

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QSM501	Number Topics	Core	2	-
QSM502	Geometry Topics	Core	2	-

### QSM501 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

### QSM502 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. Processes such as mathematical deduction and induction will be emphasized. Topics are: Mathematical deduction and induction; Basic elements of geometry as study of space in 2 and 3 dimensions; Properties associated with parallel lines; Properties of geometrical figures; Similarity and Congruency; Measurement; Constructions and proofs; Motion Geometry and tessellations.

## Music

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QSI501	General Musicianship I	Core	2	-
QSI502	General Musicianship II	Core	2	-

### **QSI501 General Musicianship I**

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

### **QSI502 General Musicianship II**

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

## Science

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QSS501	Topics in Physical Science for Primary Science Teaching	Core	2	-
QSS502	Topics in Biological Science for Primary Science Teaching	Core	2	-

### **QSS501 Topics in Physical Science for Primary Science Teaching**

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

### **QSS502 Topics in Biological Science for Primary Science Teaching**

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

## Social Studies

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QSL501	History for Social Studies	Core	2	-
QSL502	Geography for Primary Social Studies	Core	2	-

### QSL501 History for Social Studies

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

### QSL502 Geography for Primary Social Studies

This course provides an insight into the physical and human environment of Singapore. Issues such as the constraints of a small nation state, the conservation and preservation of the natural and cultural heritage, human-nature interactions, Singapore in the context of ASEAN and the world community and the dependence and interdependence of nations and regions will be discussed. Maps, photographs and other resources will be utilized and fieldtrips will be organized to enhance geographic study and understanding. Student teachers will also have an opportunity to conduct an in-depth study of a geographic problem/issue.

## LOWER PRIMARY INTEGRATED COURSES

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QCW501	Teaching Lower Primary 1	Core	4	See *
QCW502	Teaching Lower Primary 2	Core	4	See *

\* : Must have taken first course before second course.  
Must have taken CS (Eng) and CS (Math).

### QCW501 Teaching Lower Primary 1

The first course in the Lower Primary Specialization track seeks to prepare pre-service student teacher to use a more holistic and interactive approach towards teaching and learning. It will equip student teachers with the knowledge and skills to teach a developmentally appropriate integrated curriculum for children at the lower primary level and to use appropriate formal and informal assessment techniques to assess the development of young children, with particular focus on alternative forms of assessment. Student teachers will also learn how to create learning environments that are both nurturing and stimulating for young children. A spiral and experiential approach will be taken in the delivery of the courses in this Specialization. Field experiences will be arranged, where appropriate, to link theory with practice.

### QCW502 Teaching Lower Primary 2

This second course in the Lower Primary Specialization Programme will build on the pedagogies and principles taught in the first course. Using the experiential approach again, student teachers will re-visit pedagogical principles and

practices in planning and implementing a developmentally appropriate integrated curriculum for lower primary children, with an emphasis on how to cater to learner diversity within the integrated classroom. Student teachers will learn how to identify students with learning and behavioural needs, differentiate curriculum and instruction and create supportive learning environments to meet their needs. Student teachers will also look at how to collaborate with parents and the community to support children's learning and well-being.

## PRACTICUM

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QPR501	Teaching Practice	Core	10	-

### QPR501 Teaching Practice

The Practicum is a very important component of the PGDE programme. Its principal function is to provide student teachers with the opportunity to develop teaching competencies in a variety of instructional contexts and at different levels, under the guidance and supervision of cooperating teachers and university lecturers. They will learn from experienced cooperating teachers about the schooling process and prepare themselves for their roles and responsibilities in teaching.

During the Practicum, student teachers will be able to use the knowledge and skills acquired in the subjects they read at the university, and have opportunities to integrate theory and practice in schools.

The Practicum will comprise 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 evaluation 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-requisite
QLK501	Communication Skills for Teachers	Core	2	-

### QLK501 Communication Skills for Teachers

This is a practical course designed to provide student-teachers with the oral and written skills necessary for effective communication as teachers in the classroom and in their professional interaction with colleagues, parents and the general public. Student teachers learn about vocal health care and quality, and the practice of good voice production. They are familiarized with the use of a pronunciation dictionary to help them resolve pronunciation and word stress difficulties. They become aware of the importance of considering the purpose, audience and context when communicating and learn how to communicate effectively to promote student learning. They also engage in practical hands-on activities of making oral and written presentations in a variety of school contexts. Built into the tutorials are opportunities for student teachers to reflect on their practices as well as on-going assignments and oral and written presentations to assess their application of the knowledge and skills that they acquire during the course.

## **Use of Chinese in Teaching**

<b>Course Code</b>	<b>Course Title</b>	<b>Course Category</b>	<b>No of AUs</b>	<b>Pre-requisite</b>
QLC501	Use of Chinese in Teaching	Core	2	-

### **QLC501 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.

## Use of Malay in Teaching

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QLM501	Use of Malay in Teaching I	Core	1	-
QLM502	Use of Malay in Teaching II	Core	1	-

### QLM501 Use of Malay in Teaching I

The development of communicative proficiency in the use of Malay in primary schools. Accuracy and mastery in pronunciation, including the new pronunciation system (Sebutan Baku) and communication skills inside and outside the classroom. Reading aloud, spontaneous dialogue, giving instructions, questioning techniques, explaining concepts, lecturing and debating skills.

### QLM502 Use of Malay in Teaching II

Greater exposure and practice for student teachers to develop their proficiency and confidence as Malay Language teachers in the primary school. Essay and letter writing, report writing, academic and creative writing. Literacy in Jawi will be included.

## Use of Tamil in Teaching

Course Code	Course Title	Course Category	No of AUs	Pre-requisite
QLT501	Use of Tamil in Teaching I	Core	1	-
QLT502	Use of Tamil in Teaching II	Core	1	-

### QLT501 Use of Tamil in Teaching I

Development of oral proficiency and use of Standard Spoken Tamil in the classroom and school environment. Phonetics to help student teachers acquire accuracy and mastery in pronunciation and other communication skills which we used inside and outside the classroom. Common errors in speaking with spoken and written Tamil and the syntactical aspects of Tamil. Potential of IT as a language teaching tool.

### QLT502 Use of Tamil in Teaching II

Written communication skills. Essay writing, report writing and creative writing and other communication skills that are necessary for various professional roles that teachers assume in primary schools. Using IT to teach written skills.

**PGDE PROGRAMME  
TEACHING AT SECONDARY LEVEL**

## CURRICULUM STRUCTURE

The curriculum structures for various specialisations of the PGDE (Secondary) programme are shown in Tables 4, 5, 6 and 7 below:

**Table 4: Curriculum Structure of the PGDE (General, Secondary) Programme – Two Curriculum Studies**

Category/ Subject	Course Code	Title	No. of AUs
<b>EDUCATION STUDIES</b>			
	QED520	Educational Psychology I: Theories and Applications for Learning and Teaching	2
	QED523	The Social Context of Teaching and Learning	2
	QED524	Educational Psychology II: Teaching and Managing Diverse Learners in the Classroom	2
	QED527	ICT for Meaningful Learning	2
<b>CURRICULUM STUDIES (Any two as assigned)</b>			
	QCK	The Teaching of Accounting	9
	QCA	The Teaching of Art	9
	QCB	The Teaching of Biology	9
	QCY	The Teaching of Chemistry	9
	QCQ	The Teaching of Computer Applications	9
	QCN	The Teaching of Design and Technology	9
	QBS	The Teaching of Elements of Business Skills	9
	QCE*	The Teaching of English Language	9
	QCR	The Teaching of English Literature	9
	QCG	The Teaching of Geography	9
	QCH	The Teaching of History	9
	QCX	The Teaching of Home Economics	9
	QCD	The Teaching of Malay Language	9
	QCM	The Teaching of Lower Secondary Mathematics	9
	QCM	The Teaching of Mathematics	9
	QCI	The Teaching of Music	9
	QCP	The Teaching of Physics	9
	QCL	The Teaching of Social Studies	9
	QCT	The Teaching of Tamil Language	9

<b>PRACTICUM</b>			
	QPR520	Teaching Practice	10
<b>LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS</b>			
	QLK520	Communication Skills for Teachers	2
Use of Malay in Teaching	QLM520 <sup>+</sup>	Use of Malay in Teaching 1	1
	QLM521 <sup>+</sup>	Use of Malay in Teaching 2	1
Use of Tamil in Teaching	QLT520 <sup>++</sup>	Use of Tamil in Teaching 1	1
	QLT521 <sup>++</sup>	Use of Tamil in Teaching 2	1

Note: In addition to the core courses and required number of prescribed electives, student teachers are required to undertake a compulsory Group Endeavours in Service Learning (GESL) project – QGS511. Description on GESL projects is available in page 13.

- \* Student teachers assigned English Language as their Curriculum Studies (CS) are required to undertake English Language Content Enhancement (ELCE) courses. Description of ELCE is available in page 13.
- + Student teachers offering the Teaching of Malay Language as their second CS subjects must take QLM520 and QLM521 in addition to QLK520. Details of Use of Malay in Teaching are available in page 123.
- ++ Student teachers offering the Teaching of Tamil Language as their second CS subjects must take QLT520 and QLT521 in addition to QLK520. Details of Use of Tamil in Teaching are available in page 124.

**Table 5: Curriculum Structure of the PGDE (General, Secondary) Programme – One Curriculum Studies**

Category/ Subject	Course Code	Title	No. of AUs
<b>EDUCATION STUDIES</b>			
	QED520	Educational Psychology I: Theories and Applications for Learning and Teaching	2
	QED523	The Social Context of Teaching and Learning	2
	QED524	Educational Psychology II: Teaching and Managing Diverse Learners in the Classroom	2
	QED527	ICT for Meaningful Learning	2
<b>CURRICULUM STUDIES (One CS as assigned)</b>			
	QCB	The Teaching of Biology	9
	QCY	The Teaching of Chemistry	9
	QCM	The Teaching of Lower Secondary Mathematics	9
	QCM	The Teaching of Mathematics	9
	QCI	The Teaching of Music	9
	QCP	The Teaching of Physics	9
<b>PEDAGOGICAL CONTENT KNOWLEDGE (For Track A Only)</b>			
	QWP520	Pedagogical Content Knowledge I	2
	QWP521	Pedagogical Content Knowledge II	2
<b>CRAFT KNOWLEDGE (For Track B Only)</b>			
	QRC520	Educative School Experience I	2
	QRC521	Educative School Experience II	2
<b>PRACTICUM</b>			
	QPR520	Teaching Practice	10
<b>LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS</b>			
	QLK520	Communication Skills for Teachers	2

Note: In addition to the core courses and required number of prescribed electives, student teachers are required to undertake a compulsory Group Endeavours in Service Learning (GESL) project – QGS511. Description on GESL projects is available in page 13.

**Table 6 : Curriculum Structure of the PGDE (Chinese, Secondary) Programme**

Category/ Subject	Course Code	Title	No. of AUs
<b>EDUCATION STUDIES</b>			
	QED520	Educational Psychology I: Theories and Applications for Learning and Teaching	2
	QED523	The Social Context of Teaching and Learning	2
	QED524	Educational Psychology II: Teaching and Managing Diverse Learners in the Classroom	2
	QED527	ICT for Meaningful Learning	2
<b>CURRICULUM STUDIES</b>			
Chinese Language	QCC520	Teaching of Chinese Language 1	3
	QCC521	Teaching of Chinese Language 2	5
	QCC522	Teaching of Chinese Language 3	2
<b>CURRICULUM STUDIES</b>			
Chinese Literature	QCJ520	Teaching of Chinese Literature 1	2
	QCJ521	Teaching of Chinese Literature 2	4
	QCJ522	Teaching of Chinese Literature 3: IT and Project Work	2
<b>PRACTICUM</b>			
	QPR520	Teaching Practice	10
<b>LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS</b>			
	QLK520	Communication Skills for Teachers	2
Use of Chinese In Teaching	QLC520	Use of Chinese in Teaching	2

**Note:** In addition to the core courses and required number of prescribed electives, student teachers are required to undertake a compulsory Group Endeavours in Service Learning (GESL) project – QGS511. Description on GESL projects is available in page 13.

**Table 7 : Curriculum Structure of the PGDE (Malay/Tamil, Secondary) Programme**

Category/ Subject	Course Code	Title	No. of AUs
<b>EDUCATION STUDIES</b>			
	QED520	Educational Psychology I: Theories and Applications for Learning and Teaching	2
	QED523	The Social Context of Teaching and Learning	2
	QED524	Educational Psychology II: Teaching and Managing Diverse Learners in the Classroom	2
	QED527	ICT for Meaningful Learning	2
<b>CURRICULUM STUDIES (Select either Malay or Tamil Language)</b>			
Malay Language	QCD520	The Teaching of Malay Language 1	6
	QCD521	The Teaching of Malay Language 2	3
Tamil Language	QCT520	The Teaching of Tamil Language I	5
	QCT521	The Teaching of Tamil Language II	4
<b>CURRICULUM STUDIES (Select the same language as in first Curriculum Studies)</b>			
Malay Literature	QCJ523	The Teaching of Malay Literature 1	6
	QCJ524	The Teaching of Malay Literature 2	3
Tamil Literature	QCJ525	The Teaching of Tamil Literature I	5
	QCJ526	The Teaching of Tamil Literature II	4
<b>PRACTICUM</b>			
	QPR520	Teaching Practice	10
<b>LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS</b>			
	QLK520	Communication Skills for Teachers	2
Use of Malay in Teaching	QLM520	Use of Malay in Teaching 1	1
	QLM521	Use of Malay in Teaching 2	1
Use of Tamil in Teaching	QLT520	Use of Tamil in Teaching 1	1
	QLT521	Use of Tamil in Teaching 2	1

**Note:** In addition to the core courses and required number of prescribed electives, student teachers are required to undertake a compulsory Group Endeavours in Service Learning (GESL) project – QGS511. Description on GESL projects is available in page 13.

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## CONTENTS OF CORE COURSES AND PRESCRIBED ELECTIVES

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### EDUCATION STUDIES

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QED520	Educational Psychology I: Theories and Applications for Learning and Teaching	Core	2	-
QED523	The Social Context of Teaching and Learning	Core	2	-
QED524	Educational Psychology II: Teaching and Managing Diverse Learners in the Classroom	Core	2	-
QED527	ICT for Meaningful Learning	Core	2	-

#### **QED520 Educational Psychology I: Theories and Applications for Learning and Teaching**

This course provides student teachers with the foundation for understanding the learner and learner development, as well as how and why students learn or fail to learn. The ways in which these aspects influence the processes of learning and teaching will be considered, and proactive approaches to enhancing student motivation, learning, and thinking explored. Theories with a focus on students' psychosocial development and learning will be introduced and its implications for classroom-practice considered.

### **QED523 The Social Context of Teaching and Learning**

This course provides student teachers with an introduction to the Singapore education system that they will be working in. They will need to know the functions of the school 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.

### **QED524 Educational Psychology II: Teaching and Managing Diverse Learners in the Classroom**

Students with diverse abilities and needs are increasingly found in mainstream schools in Singapore. Greater diversity among students requires pedagogical approaches that are inclusive of the learning needs of all and yet responsive to individual abilities. This course seeks to help student teachers understand the characteristics and needs of diverse learners and how to cater to their needs. This course which is designed for primary school teachers also seeks to help student teachers develop their personal pedagogy, acquire and apply basic knowledge and skills in relation to creating conducive learning environments, managing and facilitating teaching and learning activities, and school/classroom discipline. The importance of the practice of proactive classroom management and

positive teacher-student relationship will also be emphasized.

## **QED527 ICT for Meaningful Learning**

This course prepares student teachers to engage learners in meaningful learning by using ICT-mediated activities. Student teachers will learn to analyse the affordances of ICT tools for various pedagogical applications, including ICT-mediated collaborative and self-directed learning, which are the goals for the ICT Masterplan 3. Student teachers will also analyse critical issues related to ICT-mediated instruction, such as managing an ICT-based classroom and cyberwellness. Student teachers will be assessed for their skills and knowledge in designing meaningful ICT-mediated teaching and learning activities.

## CURRICULUM STUDIES

### The Teaching of Accounting

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCK521	Assessment and Further Strategies in Teaching Principles of Accounts	Core	3	-
QCK522	Pedagogical Approaches to Teaching and Learning Accounting	Core	4	-
QCK523	Motivating Students to Learn Accounting	Core	2	-

#### **QCK521 Assessment and Further Strategies in Teaching Principles of Accounts**

Modes of assessment and examination requirements for Principles of Accounts at 'O' level and Principles of Accounting at 'A' level; test analysis and construction, diagnosis, feedback and remediation are covered in this course. Development of higher level skills in Accounting are honed through inquiry and guided discovery, problem-solving and case studies.

The A-Level part of this course introduces student teachers to the H2 syllabus for Principles of Accounting and provides resources and information in planning the scheme of work. The syllabus caters to a broader and more flexible curriculum with greater emphasis on higher order thinking skills, entrepreneurial pursuits, initiative and independent learning. In addition, student teachers are inspired to incorporate the MOE initiatives of Thinking Skills, NE, IT, I&E and TLLM into the curriculum.

In addition to a wide variety of instructional methods inquiry approaches to develop higher level skills in Accounting, e.g., guided discovery learning, simulation games, and problem-based learning, as

well as the use of practice sets, case studies and projects in Accounting will be covered. There will be opportunities for student teachers to have exposure in working with schools or other institutions on innovation and enterprise projects and also engage in reflective practice through Lesson Study.

## **QCK522 Pedagogical Approaches to Teaching and Learning Accounting**

This course 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 course 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. Classroom management is highlighted too. As thinking skills are inherent in the Accounting syllabuses, strategies to develop thinking skills as well as using IT to facilitate learning will be covered. Ample opportunities in harnessing IT for the teaching and learning of Principles of Accounts 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 Accounts. 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.

### **QCK523 Motivating Students to Learn Accounting**

The mixed-mode delivery framework of motivating students in learning accounting is taken further in this course when student teachers are exposed to using games and game show as pedagogical tools, and organising events like an Accounting carnival to heighten the energy level and enthusiasm of students in learning Accounting.

Creating authentic environments for applying accounting into practice, a practice set that involves manual as well as computerised accounting will provide first-hand exposure to student teachers in organising extension of learning activities for students.

## The Teaching of Art

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCA520	Teaching Art at Secondary Level	Core	2	-
QCA521	Post Practicum Evaluation	Core	1	-
QCA522	Two Dimensional Studies	Core	2	-
QCA523	Three Dimensional Studies	Core	2	-
QCA524	Art practice: In-depth Studio Practice and Pedagogy	Core	2	-

### QCA520 Teaching Art at Secondary Level

The course looks into how the teaching of art has evolved over history. It will introduce key classical and contemporary theories of adolescent development and their implication in the visual arts education and examines how these educational theories and concepts influence the teaching and assessment of art in secondary schools

### QCA521 Post Practicum Evaluation

Building on the student teachers' practicum experience, the course engages student teachers in relating the various educational theories and concepts learnt in the previous semester to their own art teaching. It will also explore the various practices of schools and examine the underpinning philosophies and values they adopt in their arts programme in relation to government initiatives and policies.

### **QCA522 Two Dimensional Studies**

The emphasis on two dimensional studio practice involving an exploration of theoretical underpinnings of creative processes and curricular implications.

### **QCA523 Three Dimensional Studies**

This course investigates the use of clay, a traditional but exceptionally versatile medium in the 3D studios/classroom. Clay as a medium of expression and learning will be discussed in relation to the curricular objectives through an investigation of traditional and contemporary practices and teaching methodologies. The learning of our cultural history through ceramic artefacts is also incorporated.

### **QCA524 Art Practice: In-depth Studio Practice and Pedagogy**

Building on the three courses in Semester I, the development by student teachers of a body of work in a chosen area of studio practice, to be used as a focus to investigate and formulate teaching methodologies in secondary art education.

## The Teaching of Biology

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCB520	Teaching of Biology I	Core	2	-
QCB521	Teaching of Biology II	Core	4	-
QCB522	Teaching of Biology III	Core	3	-

### QCB520 Teaching of Biology I

The course consists of three parts. Part 1 discusses some issues of the nature of science, and the use of history for teaching biology. It also introduces student teachers to biologists belonging to the minority groups. Part 2 discusses alternative conceptions, difficulties and problems in various biology topics, and the use of concept maps for teaching biology. Part 3 covers the various learning theories, styles and approaches, multiple intelligences theory, and the use of analogies and word juxtapoz for teaching biology.

### QCB521 Teaching of Biology II

This course will examine the Biological Sciences curriculum in Singapore Schools and how to plan lessons for pupils of different ability ranges and levels in secondary schools. Basic teaching skills together with a variety of teaching/learning strategies, thinking/study skills and co-operative learning strategies will be discussed. The management and control of pupil behavior, safety practices in science. IT, its applications and resources for Biology teaching from the Internet, will be explored.

## **QCB522 Teaching of Biology III**

Issues on the what and why of testing in science, test construction, marking of examination scripts, and its implications for teachers and teaching styles. Alternative assessment of practical skills, the setting of tasks for Science Practical skills assessment, the rubrics for teachers' practical assessment and marking of practical work. The role of resource centres for field trips, planning and conducting field trips to suitable resource centre/nature reserve and the presentation of a report on the suitability of the centre. Issues and safety measures in conducting Life Sciences experiments for students in secondary schools. Reflections on Practicum.

## The Teaching of Chemistry

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCY520	The Teaching of Chemistry I	Core	4	-
QCY521	The Teaching of Chemistry II	Core	2	-
QCY522	The Teaching of Chemistry III	Core	3	-

### QCY520 The Teaching of Chemistry I

Basic issues, concepts and principles in chemical education. Psychological principles crucial to the teaching and learning of chemistry. Issues related to the organisation and implementation of the science/chemistry curriculum. Multimedia learning and cooperative learning in chemistry education. The planning and teaching strategies, and use of resources crucial for the effective teaching of chemistry that includes unit and lesson planning, the inquiry approach, constructivist approach, problem-solving, expository teaching, demonstrations, project and practical work.

### QCY521 The Teaching of Chemistry II

Purposes of evaluation, tables of specifications, test construction, administration, marking, and analysis; interpretation of test scores. Alternative assessment modes such as open-book tests, take-home examinations, student portfolio, writing rubrics, and project work will be considered. The management, assessment and moderation of SPA (school-based practical assessment).

## **QCY522 The Teaching of Chemistry III**

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	Title	Course Category	No. of AUs	Pre-requisites
QCC520	Teaching of Chinese Language 1	Core	3	-
QCC521	Teaching of Chinese Language 2	Core	5	-
QCC522	Teaching of Chinese Language 3	Core	2	-

### QCC520 Teaching of Chinese Language 1

This course aims to provide student teachers with the basic theories and concepts related to language and language teaching at secondary level, with special reference to Chinese. Its objective is to enable student teachers to design their own lesson plans with confidence, embolden by sound theoretic knowledge.

### QCC521 Teaching of Chinese Language 2

This course aims to equip student teachers with techniques in the teaching of different language skills. Student teachers will acquire a comprehensive understanding of the various teaching methods and various practical techniques. It also introduces student teachers to effective classroom teaching skills to enhance teaching of Chinese Language.

### QCC522 Teaching of Chinese Language 3

This course aims to introduce student teachers to the basic concepts of Chinese language testing, the procedures of language testing, the effective ways of setting various types of questions and the cognitive levels involved. Its objective is to enable student teachers to design appropriate mode of assessments for the teaching of Chinese Language.

## The Teaching of Chinese Literature

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCJ520	Teaching of Chinese Literature 1	Core	2	-
QCJ521	Teaching of Chinese Literature 2	Core	4	-
QCJ522	Teaching of Chinese Literature 3: IT and Project Work	Core	2	-

### QCJ520 Teaching of Chinese Literature 1

This course introduces student teachers to the Chinese Literature syllabus for secondary and pre-university level in Singapore. It will also introduce student teachers to various literary appreciation and critical theories with special reference to the teaching of Chinese Literature. Its objective is to equip student teachers with the knowledge and skills in the teaching of Chinese literature.

### QCJ521 Teaching of Chinese Literature 2

This course deals with the formal, stylistic and thematic features of various literary genres and the skills of teaching of different literary Chinese genres, both classical and modern. It also deals with the infusing of critical thinking skills in teaching Chinese Literature. Its objective is to equip student teachers with the skills of analyzing and teaching of literary texts, in relation to content and theme, structure and literary language.

## **QCJ522 Teaching of Chinese Literature 3: IT and Project Work**

This course provides student teachers with the fundamental principles and knowledge for the use of IT in the learning and teaching of Chinese Language and Chinese Literature. It equips student teachers with basic skills and approaches in searching, selecting and integrating of digital resources in the teaching of Chinese language and Chinese Literature. It also introduces to student teachers the aims and objectives as well as fundamental concepts and strategies in supervising group projects in secondary school.

## The Teaching of Computer Applications

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCQ520	Topics in Computer Applications	Core	4	-
QCQ521	Computer Laboratories and Resources	Core	1	-
QCQ522	Assessment and Coursework	Core	2	-
QCQ523	Instructional Approaches to Computer Applications	Core	2	-

### QCQ520 Topics in Computer Applications

The learning of the various topics of CPA subject in the Secondary Normal (Technical) syllabuses with reference to key concepts and developments of subject topics including computer basics, word processing, desktop publishing, spreadsheets, database management, computer graphics, multimedia presentation and computers in everyday life. In addition, the learning of creating activities and teaching/learning materials relevant to each area of CPA subject content. Student teachers will have opportunities to give/discuss suggestions and feedback on various aspects of teaching/learning competencies for the purpose of reflection for further improvement.

### QCQ521 Computer Laboratories and Resources

The awareness of computer facilities including hardware and software, computer systems and installation, computer laboratory, microcomputers, networks, peripherals, costing; sources of information about computing and computer education including resource centres, publications, instructional packages. In addition, there will be opportunities to learn how to identify hardware/software issues; how

to rectify these issues (troubleshooting) and how to prevent them.

### **QCQ522 Assessment and Coursework**

The design, construction and analysis of tests, examinations and coursework; assessment for diagnosis and remediation; requirements and standard of performance expected of pupils in preparation for examinations. Hands-on of web publishing will be practiced and website (as a final product) will be created as a fulfillment of the coursework.

### **QCQ523 Instructional Approaches to Computer Applications**

Introduction of the major Learning Theories/Strategies and Learning Styles. The exploration and discussion of various instructional approaches appropriate for the teaching of Computer Applications (CPA), such as effective Classroom Management, Exposition, Investigative and Questioning Approach, Authentic Learning, Hands-on Activities and Problem Solving. Introduction on how emerging technologies (Video Tutorials) can be used to enhance the learning process of CPA. There will be opportunities to practice the planning process of lessons and to participate in critique of these lesson plans on CPA.

## The Teaching of Design and Technology

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCN520	Teaching and Evaluating the Problem Solving Process	Core	4	-
QCN521	Material Processing	Core	3	-
QCN522	Managing and Teaching the Design and Technology Curriculum	Core	2	-

### QCN520 Teaching and Evaluating the Problem Solving Process

QCN520 introduces the student teachers to the teaching and learning environment of the process of designing. It includes a practical approach to design communication, design folio work, and design activities specifically designed to encourage secondary school pupils to be creative and critical problem solvers. It enables student teachers to personally experience and practise the process of designing, design thinking and design problem structuring. Projects have been designed to give the student teachers opportunities to experience, practise and develop their skills through designing in action and are directly linked to the design/make environment of QCN521 and the school situation. QCN520 also includes a simulated teaching environment in which the student teachers have the opportunity to practise, analyse and evaluate peer teaching sessions with special emphasis on introductory and closure procedures, questioning skills and practical demonstrations.

## **QCN521 Material Processing**

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-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 will work with three basic materials namely Metals, Plastics and Wood; and they will also work with basic electricity and electronics related technology application.

## **QCN522 Managing and Teaching the Design and Technology Curriculum**

QCN 522 provides student teachers with the opportunity to study and become familiar with the Design and Technology (D&T) syllabuses in relation to its philosophy, implementation and evaluation. It provides an in-depth analysis of the curriculum in conjunction with the development of a scheme of work that comprises meaningful and holistic design projects and assessment criteria. The effective integration of content knowledge, process knowledge and relevant 'technology' into the D&T curriculum and related project work is also covered. Aspects of effective workshop organisation and management, safety, and resource and facilities planning are included.

## The Teaching of Elements of Business Skills

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QBS520	Pedagogical Approaches to Teaching and Learning Elements of Business Skills	Core	3	-
QBS521	Assessment and Further Strategies in Teaching Elements of Business Skills	Core	4	-
QBS522	Motivating Students to Learn Elements of Business Skills	Core	2	-

### QBS520 Pedagogical Approaches to Teaching and Learning Elements of Business Skills

This course introduces student teachers to the rationale and structure of Business Skills 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 & 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. Differentiated instruction and classroom management are discussed too. Ample opportunities in harnessing IT and embedding 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 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. Very useful pedagogical tools and strategies which are particularly relevant to teaching customer service, marketing and business activities in the service industry through the use of video vignettes, case studies and learning journeys, where authentic real-life scenarios are discussed will also be covered.

### **QBS521 Assessment and Further Strategies in Teaching Elements of Business Skills**

There are two parts to this course: (a) Modes of assessment and examination requirements for EBS, which includes discussion of assessment issues related to the examiners' expectations and the crafting of examination questions and marking schemes. (b) Further instructional approaches which will extend discussion to the development of learning communities, inquiry and the use of IT. 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 IT.

### **QBS522 Motivating Students to Learn Elements of Business Skills**

This course dovetails into the earlier courses and it engages student teachers in experiential learning. This includes the implementation of the enrichment activities to excite students in the learning of EBS by providing them with experiential learning through enrichment activities. Other than using games and game show, student teachers will be exposed to organising events and field-trips for facilitating learning

of the subject. Exposure to the use of video vignettes and simulation games as useful pedagogical tools will also be covered.

## The Teaching of English Language

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCE520	Language Teaching Approaches	Core	6	-
QCE521	Language Teaching Experience	Core	3	-

Note: Student teachers offering the Teaching of English Language are required to undertake English Language Content Enhancement (ELCE) courses. Description of ELCE is available in Page 13.

### QCE520 Language Teaching Approaches

This course introduces student teachers to the theory and practice of teaching grammar, oral communication, reading and writing to secondary school students. It aims to help learner teachers explore a range of strategies and skills for developing language proficiency in students, and develop lesson outlines for teaching grammar and the language skills in integrated ways. Learner 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, 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.

## **QCE521 Language Teaching Experience**

This course is designed to provide an opportunity for student teachers to put into practice the understandings and skills they have acquired from QCE520. Student teachers will collaboratively design a unit of integrated lessons for secondary school students. Their tutors will guide them through the processes of planning a unit of work using principles of curriculum planning as well as skills, strategies and approaches acquired from QCE520. This course also provides opportunities for student teachers to reflect on and share their teaching experiences.

## The Teaching of English Literature

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCR520	Aims and Approaches to Teaching Literature	Core	6	-
QCR523	Literature Assessment, Writing and Teacher Reflection	Core	3	-

### QCR520 Aims and Approaches to Teaching Literature

This course explores the aims and objectives as well as the challenges of teaching the Literature curriculum in Singapore schools. Informed by key theories concerning the teaching of English Literature, the main focus will be upon the acquisition of a range of practical strategies and skills for teaching the major literary forms—poetry, prose fiction, and drama—as well as practice in lesson planning. The course aims to develop pedagogically sound and effective literature teachers capable of devising their own teaching materials, instructing their students in literary analysis, and cultivating in them a love for the subject. Student teachers will find many opportunities for individual and collaborative work in this course.

### QCR523 Literature Assessment, Writing and Teacher Reflection

This course examines the principles and practice of Literature assessment with a view towards setting appropriate Literature tests and exams. Opportunities for marking essay scripts according to the syllabus band descriptors will be provided. Of the range of assessment items considered, strategies and tasks for the development of writing skills in relation to Literature will be a primary focus. This course will

conclude with a component on helping student teachers develop self-reflexive habits through reflection and evaluation after their practicum experience. Problems, teaching strengths, and weaknesses arising from Practicum will be addressed.

## The Teaching of Geography

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCG523	Developing Understanding in Teaching and Learning Geography	Core	6	-
QCG524	Teaching and Learning Geography outside the classroom	Core	2	-
QCG525	Assessment in Geography	Core	1	-

### **QCG523 Developing Understanding in Teaching and Learning Geography**

The course aims to guide student teachers to understand what it means to be an effective geography teacher. The course will allow student teachers to see, understand, and appreciate the web of relationships between people, places and environments through the exploration of key geographical concepts. They will learn pedagogical approaches which are interwoven into the subject matter. Student teachers will be given opportunities to design, teach and critique the geography curriculum.

### **QCG524 Teaching and Learning Geography outside the classroom**

Field studies are an integral part of the teaching and learning geography. This course provides student teachers with the theoretical understanding of field studies. They will be given opportunities to design, conduct and critique a field-based learning activity.

## **QCG525 Assessment in Geography**

Classroom assessment and practices have the potential to measure and provide feedback on learning as well as to ensure the understanding of geography. Student teachers will explore both the formative and summative aspects of assessing the learning of geography.

## The Teaching of History

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCH524	Teaching of Secondary History through Field Trips	Core	2	-
QCH525	Teaching and Learning of Secondary History	Core	4	-
QCH526	Assessment and Evaluation in Secondary History	Core	2	-
QCH527	Reflection in the Teaching and Learning of Secondary History	Core	1	-

### QCH524 Teaching of Secondary History through Field Trips

This course seeks to expose student teachers to an interesting and challenging strategy in the teaching of History by taking student-teachers out of the classroom. It will focus on how fieldtrips can be used to make the subjects come alive for pupils. Student-teachers will be trained to plan, organize and conduct fieldtrips to selected sites in Singapore. They will not only discover valuable nuggets of information about these sites, but will also learn how to organize activities that will enhance pupils' awareness of their culture and heritage.

### QCH525 Teaching and Learning of Secondary History

The course gives an insight to student teachers about the nature and purpose of teaching secondary school History. The teaching of History in secondary schools is now in an exciting phase of change. Creative thinking, ICT and use of sources are changing the way the subject is being taught in schools. This course is designed to equip student-teachers with various strategies such as cooperative learning, the use of role-play, the integration of

sources in lessons and the use of information communication technology, as part of teaching through historical enquiry.

### **QCH526 Assessment and Evaluation in Secondary History**

This course enables student-teachers to conduct assessment and evaluation in History. To meet the objectives and examination requirements of the new syllabus, emphasis is given to the use of source materials. It examines how primary and secondary sources can be used in constructing document-based items. The course gives student-teachers practice in setting source based and structured essay questions, devising marking schemes and marking answer scripts. It also introduces student-teachers to formative assessments as an alternative method to assess and evaluate students' learning.

### **QCH527 Reflection in the Teaching and Learning of Secondary History**

This course gives the opportunity for student-teachers to link theory with practice. It emphasizes the importance of reflection in teaching. Student-teachers will be given the opportunity to share their reflections on a particular lesson that they have been tasked to teach in the schools they have been posted to. They will also reflect on relevant aspects of their Practicum experiences.

## The Teaching of Home Economics

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCX520	Home Economics Curriculum and Evaluation	Core	2	-
QCX521	The Teaching of Food and Nutrition	Core	2	-
QCX522	The Teaching of Textiles and Clothing	Core	2	-
QCX523	The Teaching of Consumer Education	Core	3	-

### **QCX520 Home Economics Curriculum and Evaluation**

The nature, history and philosophy of Home Economics; the rationale and objectives of teaching Home Economics; resources and teaching strategies which focus on learner involvement and developing innovation & enterprise; the use of appropriate evaluation procedures in facilitating effective learning will be discussed.

### **QCX521 The Teaching of Food and Nutrition**

The Food and Nutrition syllabi at the lower and upper secondary levels; strategies and methods to teach basic principles of food management; organization of investigative and practical work, emphasis on coursework development for the GCE 'O' and 'N' Level syllabi.

### **QCX522 The Teaching of Textiles and Clothing**

The pedagogical aspects of topics such as textile studies, planning of clothing needs of individuals and families, consumer awareness in the choice and care of clothes, use and care of equipment, and skills in clothing construction.

## **QCX523 The Teaching of Consumer Education**

Various approaches to the teaching of family and consumer education, the concepts of needs and wants, as well as how to make smart consumer decisions, to identify priorities, to set realistic economic goals and manage resources effectively; integration of IT skills, technology, critical thinking and becoming entrepreneurial in promoting Home Economics/Family and Consumer Education in school will be explored.

## The Teaching of Malay Language

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCD520	The Teaching of Malay Language 1	Core	6	-
QCD521	The Teaching of Malay Language 2	Core	3	-

### QCD520 The Teaching of Malay Language 1

This course introduces student teachers to the theoretical and practical understanding of the Malay language curriculum contents, development and implementation in secondary school. Its integrative design, which includes the use of appropriate media and materials, as well as the current trends and initiatives in the teaching and learning of Malay language, will be included. Student teachers will also be equipped with the various and current approaches and methods to Malay language teaching and learning, with special emphasis on pupils' differing learning styles, abilities and varied academic programmes. Lesson plan and micro-teaching aspects will also be incorporated. This course also includes components on the teaching and learning of listening and speaking skills; reading process and approaches to developing reading skills; vocabulary acquisition and the teaching of Malay proverbs.

### QCD521 The Teaching of Malay Language 2

This course deals with the theoretical and practical aspects of the writing process, its various genres and levels of writing skills in the teaching and learning of Malay language at secondary level. Student teachers will learn how to use various text types, including multimodal texts, in teaching writing for various academic programmes. Another important component of this course is testing and assessment.

Student teachers will be introduced to the basic concepts in testing such as validity, reliability, objectivity, and the construction and administration of test items and materials. Authentic and alternative assessments, rubric designs and their application in classroom settings with special emphasis on students' varied learning needs and styles will be equally emphasized.

## The Teaching of Malay Literature

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCJ523	The Teaching of Malay Literature 1	Core	6	-
QCJ524	The Teaching of Malay Literature 2	Core	3	-

### QCJ523 The Teaching of Malay Literature 1

The aims and objectives of teaching literature and the place of literature in curriculum. An overview of the developments of modern Malay and Indonesian literature. The general methods and techniques of teaching literature. The knowledge and skills of teaching modern Malay and Indonesian novel, short story, poetry and drama/play at secondary schools. Evaluation and testing of modern literature.

### QCJ524 The Teaching of Malay Literature 2

The course prepares the pre-service teachers to teach traditional Malay literature in secondary schools. An overview of the main features and developments of traditional Malay literature. The knowledge and skills of the teaching of traditional Malay prose and poetry. The principles, methods and techniques of teaching of selected classical genres and texts. Appreciation, evaluation and testing of traditional Malay literature.

## The Teaching of Mathematics

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCM520	Teaching and Learning Mathematics I (All Sec)	Core	6	-
QCM521	Teaching and Learning Mathematics II (All Sec)	Core	3	-

### QCM520 Teaching and Learning Mathematics I (All Sec)

The main objective of this course is to equip student teachers with a working knowledge of basic teaching principles; an understanding of the theories of learning that inform instruction and a comprehensive knowledge of the curriculum. The content of this course includes: aims and objectives of mathematics education; mathematics curriculum in Singapore; learning theories in mathematics; lesson planning; role of ICT in mathematics education; teaching of mathematics topics - Arithmetic, Algebra, Functions and Graphs, Mensuration, Geometry, Trigonometry, Statistics, Probability, Sets, Matrices, Vectors, Higher Algebra and Calculus.

### QCM521 Teaching and Learning Mathematics II (All Sec)

Microteaching; assessment, test construction and marking; reflection on practice. Topics for microteaching and test construction will be taken from the Secondary Mathematics Syllabus.

## The Teaching of Lower Secondary Mathematics

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCM530	Teaching and Learning Mathematics I (Lower Sec)	Core	6	-
QCM531	Teaching and Learning Mathematics II (Lower Sec)	Core	3	-

### QCM530 Teaching and Learning Mathematics I (Lower Sec)

The main objective of this course is to equip student teachers with a working knowledge of basic teaching principles; an understanding of the theories of learning that inform instruction and a comprehensive knowledge of the curriculum. The content of this course includes: aims and objectives of mathematics education; mathematics curriculum in Singapore; learning theories in mathematics; lesson planning; role of ICT in mathematics education; teaching of mathematics topics - Arithmetic, Algebra, Functions and Graphs, Mensuration, Geometry, Trigonometry, Statistics, Probability, and Sets.

### QCM531 Teaching and Learning Mathematics II (Lower Sec)

Microteaching; assessment, test construction and marking; reflection on practice. Topics for microteaching and test construction will be taken from the Lower Secondary Mathematics Syllabus.

## The Teaching of Music

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCI522	Music and Media in the Secondary School Classroom	Core	1	-
QCI523	Curriculum Planning and Assessment in Music	Core	2	-
QCI524	Post Practicum Discussion: Summary and Conclusions	Core	1	-
*QCI525	Teaching Music as an Examination Subject	Core	1	-
#QCI526	Personal Musical Skills	Core	1	-
QCI527	Foundation Studies in Music Education: Theory and Practice	Core	2	-
QCI528	Pedagogical Methods and Music-IT Skills for Music Teaching	Core	2	-

Note: \* For those offering CS1 Music only.

# For those offering CS2 Music only.

### **QCI522 Music and Media in the Secondary School Classroom**

This course looks at how multi-media art in the form of film musicals and contemporary MTVs can be used for the teaching of music. The interaction of music, visual arts, drama, dance and literature will be understood in the broader contexts of politics, culture, sociology, philosophy, ethics, geography and history.

### **QCI523 Curriculum Planning and Assessment in Music**

This course focuses on curriculum planning, lesson planning, and assessment of learning in music as well as the management of musical co-curricular activities. Microteaching will be included.

**QCI524 Post Practicum Discussion: Summary and Conclusions**

This course offers an opportunity for student teachers to share their teaching experiences and discuss successful music teaching practices for a variety of educational contexts in Singapore.

Theories of music education covered in earlier courses will be reconsidered in the light of the student teachers' recent practical experience.

**QCI525 Teaching Music as an Examination Subject (for CS1)**

This course will cover teaching approaches and specific methodologies for student teachers to prepare students for the G.C.E. "O"-level music exams (including the "Higher Music" options).

**QCI526 Personal Musical Skills (for CS2s)**

This course covers basic vocal techniques, recorder playing and basic conducting skills.

**QCI527 Foundation Studies in Music Education: Theory and Practice**

This course explores current thinking in the philosophy, psychology and sociology of music education, and allows student teachers to explore the theories through integrated practical, creative and listening activities appropriate for the secondary school classroom. The current MOE GMP (General Music Programme) syllabus will be introduced, together with relevant MOE initiatives. In particular,

the role of music in education from the Chinese, Indian and Malay traditions will be considered in addition to the music of Western traditions, both classical and popular.

**QCI528 Pedagogical Methods and Music-IT Skills for Music Teaching**

This course will introduce music-IT skills for music teachers including the use of notation, sequencing and “looping” software suitable for use in the General Music Programme (GMP) and Normal Technical (NT) Examination Syllabus in secondary schools. Ways of teaching the music literacy and listening aspects of the Normal Technical Syllabus will be introduced.

## The Teaching of Physics

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCP520	Teaching of Physics I	Core	2	-
QCP521	Teaching of Physics II	Core	4	-
QCP522	Teaching of Physics III	Core	3	-

### QCP520 Teaching of Physics I

The course attempts to provide student teachers in initial teacher education programmes with an understanding of school pupils and physics from social, cultural and pedagogical perspectives. To improve their teaching practice, they will explore individual differences in learning, possible factors affecting students' understanding of physics, and strategies to support different ability groups as represented in the Gifted, Express, Normal (Academic) and Normal (Technical) Streams. Special effort will be made to help student teachers understand the nature of science, different pedagogical approaches for teaching physics, and elements of good physics teaching such as classroom interaction, creativity, thinking skills, inquiry, and explaining.

### QCP521 Teaching of Physics II

This course will introduce student teachers to physics curriculum development with respect to international and local trends. The infusion of thinking, the meaningful integration of ICT and the linkage to national education, innovation and enterprise spirit will be given due attention and focus. An understanding of the constructivist-inquiry approach, investigative problem-solving, meaningful demonstration and purposeful deductive inquiry will

facilitate the teaching and learning of physics. This course will also address alternative conceptions of student teachers on various physics topics. Activities based on the physics curriculum and involving experiences that are hands-on, minds-on and experiential will be introduced to model how conceptual development and change can be facilitated.

### **QCP522 Teaching of Physics III**

This course explores important areas of Physics teaching pertaining to assessment and evaluation issues. It covers setting, marking and analysis of test papers, formative assessment strategies, and alternative forms of assessment for the purpose of providing useful feedback to students, parents and other stakeholders. It also deals with the role of practical work in developing process skills and the assessment of laboratory skills, particularly in the context of SPA. Resource management and safety in science laboratories will also be discussed.

## The Teaching of Social Studies

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCL520	Teaching Social Studies to Secondary Students	Core	4	-
QCL521	Use of Sources in the Secondary Social Studies Classroom	Core	2	-
QCL522	Assessment and Reflective Teaching in Social Studies	Core	3	-

### **QCL520 Teaching Social Studies to Secondary Students**

This course aims to provide student teachers with an understanding of the nature, scope and goals of social studies in the context of the school curriculum and the nature of Singapore's growth as a society. Opportunities to reflect critically on issues related to the syllabuses content as well as to the teaching of the subject in schools will be provided. Student teachers will try out a variety of teaching strategies through practice-based sessions, and design and develop unit and lesson plans in a cooperative learning environment.

### **QCL521 Use of Sources in the Secondary Social Studies Classroom**

An important aim of Social Studies is to develop thinking and process skills which are essential for lifelong and independent learning. This course will not only expose student teachers to a variety of ways to use sources in the lower secondary normal technical and upper secondary social studies classrooms, but also provide opportunities for student teachers to select appropriate sources, and design creative teaching strategies that incorporate the use of sources.

## **QCL522 Assessment and Reflective Teaching in Social Studies**

This course focuses on assessment and will include a variety of methods and strategies that are appropriate for the assessment of learning outcomes in social studies. Student teachers will set source-based questions and structured-essay questions, devise the mark schemes and mark answer scripts. The course will also provide opportunities for student teachers to reflect on not only the quality of their students' work but also their own work.

## The Teaching of Tamil Language

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCT520	Teaching of Tamil Language I	Core	5	-
QCT521	Teaching of Tamil Language II	Core	4	-

### QCT520 Teaching of Tamil Language I

Exploring the two of four different types of language skills, namely reading and writing. Developing the language proficiency of students in Singapore secondary schools. Different methods to emphasis the content of Tamil Language in curriculum. Introducing IT skills to the student teachers in order to develop them to prepare IT related lesson packages and to create the Tamil language related websites.

### QCT521 Teaching of Tamil Language II

Exploring the listening and speaking skills and the introduction to various methods to teach these skills in an interesting and effective manner. Teaching of vocabulary and the functional grammar at secondary level through various teaching methods and strategies. To highlight the difference between Standard Spoken Tamil and written Tamil in order to equip the students to improve their speaking and writing skills. The importance of testing, the evaluation of the performance at the test paper, remedial activities and the place of high and low order thinking skills in testing.

## The Teaching of Tamil Literature

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCJ525	Teaching of Tamil Literature I	Core	5	-
QCJ526	Teaching of Tamil Literature II	Core	4	-

### QCJ525 Teaching of Tamil Literature I

An introduction to the teaching of Tamil language through the use of literature. The use of Tamil drama and various aspects of ancient, medieval and modern poetry such as explanation and presentation of dramatic situations in poems, description of images, mood and attitudes, tone, analogical language, theme and meaning. Various aspects of National Education in Tamil literature and its importance in teaching of Tamil language at secondary level. Appreciating literary works, critic. Facilitating student teachers with the various types of literary works such as poetry, and drama.

### QCJ526 Teaching of Tamil Literature II

The teaching of Tamil language through the study of novels, short stories and essays. Using various kinds of Tamil short stories and novels to analyze the techniques used by writers. Integrating National Education into lessons using Tamil fictions. Using IT tools to teach the literature in an interesting and effective manner.

## **PEDAGOGICAL CONTENT KNOWLEDGE**

<b>Course Code</b>	<b>Title</b>	<b>Course Category</b>	<b>No. of AUs</b>	<b>Pre-requisites</b>
QWP520	Pedagogical Content Knowledge I	Core	2	-
QWP521	Pedagogical Content Knowledge II	Core	2	-

### **QWP520 Pedagogical Content Knowledge I**

This course aims to help student teachers develop content knowledge in learning to teach in the curriculum subject. They will also develop an understanding of the theories, principles, and concepts of the curriculum subject. Especially important is content knowledge that deals with the teaching process, including the most useful forms of representing and communicating content and how students best learn the specific concepts and topics of a subject.

### **QWP521 Pedagogical Content Knowledge II**

Building upon Pedagogical Content Knowledge I, this course focuses on the pedagogy of transferring knowledge of content to others. It includes useful forms of representation of these ideas, analogies, illustrations, examples, explanations, and demonstrations, the ways of representing and formulating the subject that make it comprehensible to others.

## CRAFT KNOWLEDGE

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QRC520	Educative School Experience I	Core	2	-
QRC521	Educative School Experience II	Core	2	-

### QRC520 Educative School Experience I

This course provides student teachers with a structured framework within a school setting to understand, reflect, theorise and build the basis for development of craft knowledge. While student teachers gain better awareness of the realities within school contexts, understanding of theory-practice links is facilitated through reflections and sharing within a learning community. Student teachers acquire fundamental practical skills and ability to link to relevant perspectives.

### QRC521 Educative School Experience II

Building upon the knowledge developed through Educative School Experience I, this course provides student teachers with the school contexts to go beyond reflections on practice to a higher level practical theorizing which require critical analyses of field experiences using sound theoretical frameworks. Student teachers acquire the commitment, confidence, analytic abilities and skills to be able to critically reflect, theorise and develop their craft knowledge and skills as a pre-service teacher.

## PRACTICUM

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QPR520	Teaching Practice	Core	10	-

### QPR520 Teaching Practice

The Practicum is a very important component of the PGDE programme. Its principal function is to provide student teachers with the opportunity to develop teaching competencies in a variety of instructional contexts and at different levels, under the guidance and supervision of cooperating teachers and university lecturers. They will learn from experienced cooperating teachers about the schooling process and prepare themselves for their roles and responsibilities in teaching.

During the Practicum, student teachers will be able to use the knowledge and skills acquired in the subjects they read at the university, and have opportunities to integrate theory and practice in schools.

The Practicum will comprise 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 evaluation 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	Title	Course Category	No. of AUs	Pre-requisites
QLK520	Communication Skills for Teachers	Core	2	-

### QLK520 Communication Skills for Teachers

This is a practical course designed to provide student-teachers with the oral and writing skills necessary for effective communication as teachers in the classroom and in their professional interaction with colleagues, parents and the general public. Student teachers learn about vocal health care and quality, and the practice of good voice production. Pronunciation and word stress issues are also highlighted in the course. They are familiarized with the use of a pronunciation dictionary to help them resolve pronunciation and word stress difficulties. They become aware of the importance of considering the purpose, audience and context when communicating and learn how to communicate effectively to promote student learning. They also engage in practical hands-on activities of making oral and written presentations in a variety of school contexts. Built into the tutorials are opportunities for student teachers to reflect on their practices as well as on-going assignments and oral and written presentations to assess their application of the knowledge and skills that they acquire during the course.

## **Use of Chinese in Teaching**

<b>Course Code</b>	<b>Title</b>	<b>Course Category</b>	<b>No. of Aus</b>	<b>Pre-requisites</b>
QLC520	Use of Chinese in Teaching	Core	2	-

### **QLC520 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.

## Use of Malay in Teaching

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QLM520	Use of Malay in Teaching 1	Core	1	-
QLM521	Use of Malay in Teaching 2	Core	1	-

### QLM520 Use of Malay in Teaching 1

This course aims to equip student teachers with skills in using Malay for effective oral communication. Student teachers will be given the opportunity to read aloud, experience spontaneous dialogue, give instructions, lecture and debate. Accuracy and mastery in the use of Sebutan Baku will also be included.

### QLM521 Use of Malay in Teaching 2

This course aims to further expose student teachers to various forms of writing, including creative writing. Opportunities for student teachers to practice their skills on writing various genres are central to this course. Student teachers will also be introduced to the reading and writing of simple Jawi script as a form of communication tool in Malay language learning and teaching.

## Use of Tamil in Teaching

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QLT520	Use of Tamil in Teaching 1	Core	1	-
QLT521	Use of Tamil in Teaching 2	Core	1	-

### QLT520 Use of Tamil in Teaching 1

Development of oral proficiency in Tamil language. Phonetics to help student teachers acquire accuracy and mastery in pronunciation and other communication skills inside and outside the classroom. Written communication skills. Common errors in writing and the syntactical aspects of Tamil.

### QLT521 Use of Tamil in Teaching 2

Written communication skills. Essay writing, report writing and creative writing and other communication skills that are necessary for various professional roles that teachers assume in the secondary schools. Effective ways of creating lessons and lesson plans with a view to increase the potential and highlighting a clear and effective way to maximise the student teachers' objectives.

**PGDE PROGRAMME**  
**TEACHING AT JUNIOR COLLEGE LEVEL**

**Table 8: Curriculum Structure of the PGDE (General, Junior College) Programme**

Category/ Subject	Course Code	Title	No. of AUs
<b>EDUCATION STUDIES</b>			
	QED520	Educational Psychology I: Theories and Applications for Learning and Teaching	2
	QED523	The Social Context of Teaching and Learning	2
	QED524	Educational Psychology II: Teaching and Managing Diverse Learners in the Classroom	2
	QED527	ICT for Meaningful Learning	2
<b>CURRICULUM STUDIES – JUNIOR COLLEGE (Any one as assigned) ^</b>			
	QCB	The Teaching of Biology	6
	QCY	The Teaching of Chemistry	6
	QCO	The Teaching of Economics	9
	QCG	The Teaching of Geography	6
	QCH	The Teaching of History	6
	QCM	The Teaching of Mathematics	6
	QCP	The Teaching of Physics	6
<b>CURRICULUM STUDIES – SECONDARY (Any one as assigned)</b>			
	QCB	The Teaching of Biology	9
	QCY	The Teaching of Chemistry	9
	QCQ	The Teaching of Computer Applications	9
	QBS	The Teaching of Elements of Business Skills	9
	QCE*	The Teaching of English Language	9
	QCR	The Teaching of English Literature	9
	QCG	The Teaching of Geography	9
	QCH	The Teaching of History	9
	QCM	The Teaching of Lower Secondary Mathematics	9
	QCM	The Teaching of Mathematics	9
	QCI	The Teaching of Music	9
	QCP	The Teaching of Physics	9
	QCL	The Teaching of Social Studies	9
<b>KNOWLEDGE SKILLS</b>			
	QKS520	Knowledge Skills: Interdisciplinary Studies	3
<b>PRACTICUM</b>			
	QPR540	Teaching Practice	10
<b>LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS</b>			
	QLK520	Communication Skills for Teachers	2

Note: In addition to the core courses and required number of prescribed electives, student teachers are required to undertake a compulsory Group Endeavours in Service Learning (GESL) project – QGS511. Description on GESL projects is available in page 13.

- \* Student teachers assigned English Language as their Curriculum Studies (CS) are required to undertake English Language Content Enhancement (ELCE) courses. Description of ELCE is available in page 13.
  
- ^ The Junior College teaching subject must be aligned to the Secondary teaching subject, with the exception of Economics.

**CONTENTS OF CORE COURSES AND  
PRESCRIBED ELECTIVES**

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**EDUCATION STUDIES**

The courses for QED520-527 are described in Education Studies section under PGDE Programme, Teaching at Secondary Level.

**CURRICULUM STUDIES (SECONDARY)**

**The Teaching of ....**

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

## CURRICULUM STUDIES (JUNIOR COLLEGE)

### The Teaching of Biology

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCB540	The Teaching of A-level Biology I	Core	3	-
QCB541	The Teaching of A-level Biology II	Core	3	-

#### QCB540 The Teaching of A-level Biology I

In this course, student teachers will learn the approaches for teaching controversial issues. Student teachers will also learn how to mentor students for independent science investigative work which involves planning investigations, collecting data, analyzing data, presenting data, and preparing scientific reports. 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.

#### QCB541 The Teaching of A-level Biology II

This course will cover instructional strategies that foster critical thinking as well as the role that language plays in both oral and written scientific discourse and literacy in the context of Biology. The course includes microteaching which provides student teachers with opportunities to identify and practise basic teaching skills such as opening and closing a lesson, explaining concepts and questioning. The microteaching presentations will be reviewed and critiqued by peers and the tutor. Student teachers will also learn how to design and

assess tasks for A-level school-based science practical assessment.

## The Teaching of Chemistry

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCY540	The Teaching of A-level Chemistry I	Core	3	-
QCY541	The Teaching of A-level Chemistry II	Core	3	-

### QCY540 The Teaching of A-level Chemistry I

The course will examine the A-level chemistry curriculum, and covers issues and practices related to the pedagogical content knowledge required in the A-level chemistry curriculum. The course will also focus on the issues and challenges related to written assessment, school-based practical assessment and alternative assessments, and on the integration of ICT in teaching and learning at the A-level.

### QCY541 The Teaching of A-level Chemistry II

The course will incorporate discussions on the teaching of difficult A-level chemistry topics as well as microteaching sessions to provide student teachers opportunities to practise teaching skills related to mass lectures, small group tutorials and practical work, peer evaluation and self-reflection.

## The Teaching of Economics

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCO540	Further Instructional Approaches and Assessment of A-Level Economics	Core	3	-
QCO541	Pedagogical Approaches to Teaching and Learning Economics	Core	4	-
QCO542	Motivating Students to Learn Economics	Core	2	-

### **QCO540 Further Instructional Approaches and Assessment of A-Level Economics**

This course aims to equip student teachers with assessment knowledge and skills to prepare their students for the assessment of 'A' level Economics examinations in Semester 1. Student teachers will learn the assessment objectives and format used in the examinations, the skills to craft examination questions and marking schemes, grade students' scripts, identify strengths and weaknesses from their scripts and give feedback to students on their performance and areas for improvement.

In Semester 2, the course will focus on advanced teaching strategies to enhance student learning and interest, a continuation of QCO541 Pedagogical Approaches to Teaching and Learning Economics.

### **QCO541 Pedagogical Approaches to Teaching and Learning Economics**

This course aims to groom student teachers to become reflective practitioners with the knowledge, skills and values to teach 'A' Economics in Singapore schools. Student teachers will imbibe the principles of engaged learning and examine brain-compatible teaching strategies, and use these in lesson planning and implementation so that their students will in turn

learn purposefully, develop deep understanding of subject knowledge and acquire the facility to use the tools of economic analysis to make connections with the real world outside the classroom. There are three main sections: lesson planning, basic pedagogy and micro-teaching. This course will lay a foundation for further pedagogical approaches in Economics teaching.

### **QCO542 Motivating Students to Learn Economics**

This course aims to equip student teachers to motivate students to take ownership of their learning, develop a deep interest and understanding of Economics, know how to use the tools of economic analysis and make connections between their learning and life in the wider society outside the classroom. This is achieved by examining professional practices to nurture, inspire and motivate students in the classroom as well as strengthening student teachers' expertise on economic issues in the local and global economy in order to be able to apply and incorporate current and real-world Economics into their lesson delivery.

## The Teaching of Geography

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCG540	Exploring Themes in “A” level Geography	Core	4	-
QCG541	Teaching and Learning in “A” level Geography	Core	2	-

### QCG540 Exploring Themes in “A” level Geography

This course deepens the student teacher’s conceptual understanding of Geography based on the themes in the “A” levels Geography syllabus. The students will critically explore the themes in both the Physical and Human Geography. This in-depth exploration and analysis of the themes will provide the scope and context for teaching and learning of Geography at “A” levels.

### QCG541 Teaching and Learning in “A” level Geography

The aim of this course is to equip student teachers with the relevant pedagogical approaches to teach and assess Geography learning at “A” levels confidently, meaningfully and even creatively. Student teachers will have a good understanding of the instruction approaches in which lessons can be structured to enhance student engagement. They will also develop a good understanding of the various ways of assessment for learning.

## The Teaching of History

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCH540	Teaching & Learning History for A-Level Students	Core	4	-
QCH541	Assessment and Evaluation of History at the A-Levels	Core	2	-

### QCH540 Teaching & Learning History for A-Level Students

This course is aimed at introducing student-teachers to the teaching and learning of history at the JC-level, and to raise their awareness on the challenges of teaching history to A-level students. The course plans to build upon the pedagogical knowledge and disciplinary understandings that student-teachers would have acquired while undergoing a concurrent course on the teaching and learning of history and social studies at the secondary school level, to better meet the learning needs of students taking A-level history. The course will give student-teachers an insight into the nature and objectives of teaching A-level history, as well as allowing them to explore ways to enhance students' learning experiences through historical enquiry. This course is designed to equip student- teachers not only with the pedagogical understanding of teaching A-level history but also with the necessary strategies that would enable them to cultivate (in their students) a predisposition to explore, interpret and understand the past, as part of learning to think historically.

## **QCH541 Assessment and Evaluation of History at the A-Levels**

This course seeks to expose student teachers to key issues involved in the assessment and evaluation of history at the A-levels. Generally, the course aims at enabling student-teachers to conduct assessment in the subject, with attention given to the practical aspects of how to assess what students have learnt from being taught A-level history. In line with the objectives and examination requirements of the current syllabus, the main emphasis of the course will be on the ways source materials can be used to meet assessment demands of the two papers on offer for examination at the GCE A Levels. For this purpose, the course has been designed to give student teachers ample opportunities at setting source-based and other theme-based essay questions, as well as giving them adequate practice at both devising marking schemes and the marking of answer scripts. Student-teachers will also be exposed to the technical aspects of writing an argumentative history essay, and will be involved in formulating possible strategies aimed at improving students' history essay-writing skills.

## The Teaching of Mathematics

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCM540	Teaching and Learning of A-Level Mathematics	Core	6	-

### QCM540 Teaching and Learning of A-Level Mathematics

The main objective of this course is to equip student teachers with a working knowledge of teaching principles, an understanding of the theories of learning that inform instruction, and a comprehensive knowledge of the mathematics curriculum at A-level. The content of this course includes: curriculum for H1, H2 and H3 mathematics; planning lectures and tutorials in A-level mathematics; role of ICT and use of graphing calculators in mathematics teaching and learning; teaching of A-Level mathematics topics such as Algebra, Calculus, Vectors, Complex Numbers, and Probability and Statistics, and a brief introduction to topics in H3 Mathematics.

## The Teaching of Physics

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QCP540	The Teaching of A-level Physics I	Core	3	-
QCP541	The Teaching of A-level Physics II	Core	3	-

### QCP540 Teaching of A-level Physics I

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.

### QCP541 Teaching of A-level Physics II

This course focuses on assessment and evaluation issues, and laboratory work in A-level physics. It explores different modes of assessment to evaluate students' understanding and covers the setting and marking of A-level physics tests. The course also deals with the design and management of laboratory work to engage students in scientific theories and principles. Laboratory work in the context of school-based assessment will also be examined.

## KNOWLEDGE SKILLS

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QKS520	Knowledge Skills: Interdisciplinary Studies	Core	3	-

### QKS520 Knowledge Skills: Interdisciplinary Studies

This course will help student teachers to develop the attitudes, knowledge and skills which include communication and presentation skills expected of Junior College (JC) teachers. A cluster of process skills which is relevant for JC teachers is covered in this course. Student teachers are introduced to reasoning skills which are necessary for the analysis and evaluation of situations and arguments, as well as the formulation and articulation of good arguments and judgments. Student teachers develop the knowledge and skills to introduce elements of critical thinking that facilitates General Paper, Project Work and their curriculum subjects. Student teachers also focus on developing literacy for research and presentation skills.

## PRACTICUM

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QPR540	Teaching Practice	Core	10	-

### QPR540 Teaching Practice

The Practicum is a very important component of the PGDE (JC) programme. Its principal function is to provide student teachers with the opportunity to develop teaching competencies in a variety of instructional contexts at JC-level in JCs or centralized institutes, under the guidance and supervision of cooperating teachers and university supervisors. They will learn from experienced cooperating teachers about the schooling process and prepare themselves for their roles and responsibilities in teaching.

During the Practicum, student teachers will be able to use the knowledge and skills acquired in the subjects they read at the university, and have opportunities to integrate theory and practice in JCs or centralized institutes.

The Practicum will comprise 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 evaluation 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	Title	Course Category	No. of AUs	Pre-requisites
QLK520	Communication Skills for Teachers	Core	2	-

### QLK520 Communication Skills for Teachers

This is a practical course designed to provide student-teachers with the oral and writing skills necessary for effective communication as teachers in the classroom and in their professional interaction with colleagues, parents and the general public. Student teachers learn about vocal health care and quality, and the practice of good voice production. Pronunciation and word stress issues are also highlighted in the course. They are familiarized with the use of a pronunciation dictionary to help them resolve pronunciation and word stress difficulties. They become aware of the importance of considering the purpose, audience and context when communicating and learn how to communicate effectively to promote student learning. They also engage in practical hands-on activities of making oral and written presentations in a variety of school contexts. Built into the tutorials are opportunities for student teachers to reflect on their practices as well as on-going assignments and oral and written presentations to assess their application of the knowledge and skills that they acquire during the course.

**PGDE PROGRAMME  
TEACHING PHYSICAL EDUCATION  
AT SECONDARY LEVEL**

**Table 9: Curriculum Structure of the PGDE (Physical Education, Secondary) Programme**

**Year 1**

Category/ Subject	Course Code	Title	No. of AUs
<b>EDUCATION STUDIES</b>			
	QED520	Educational Psychology I: Theories and Applications for Learning and Teaching	2
	QED523	The Social Context of Teaching and Learning	2
	QED524	Educational Psychology II: Teaching and Managing Diverse Learners in the Classroom	2
	QED527	ICT for Meaningful Learning	2
<b>CURRICULUM STUDIES</b>			
Physical Education	QPC520	Principles of Games	2
	QPC521	Instructional Methods in Physical Education	2
	QPC522	Outdoor Residential Camp	1
<b>CURRICULUM STUDIES (Select one)</b>			
Physical Education	QPC562	Rugby	2
	QPC563	Basketball	
<b>CURRICULUM STUDIES (Select one)</b>			
Physical Education	QPC567	Track and Field	2
	QPC570	Swimming	
<b>CURRICULUM STUDIES (Select one)</b>			
Physical Education	QPC571	Badminton	2
	QPC572	Volleyball	
<b>ACADEMIC SUBJECTS</b>			
Physical Education	QPA521	Growth and Motor Development	2
	QPA522	Anatomical and Biomechanical Foundations of Physical Activity	3
	QPA523	Physiology of Exercise	2
	QPA524	Introduction to Physical Education & Sport	2
<b>PRACTICUM</b>			
	QPR521	Teaching Practice 1	5
<b>LANGUAGE ENHANCEMENT AND ACADEMIC DISCOURSE SKILLS</b>			
	QLK520	Communication Skills for Teachers	2

**Note:** In addition to the core courses and required number of prescribed electives, student teachers are required to undertake a compulsory Group Endeavours in Service Learning (GESL) project – QGS511. Description on GESL projects is available in page 13.

## Year 2

Category/ Subject	Course Code	Title	No. of AUs
<b>CURRICULUM STUDIES</b>			
Physical Education	QPC620	Instructional Strategies in Teaching of Physical Education	3
	QPC621	Fitness and Conditioning	1
<b>CURRICULUM STUDIES (Select one)</b>			
Physical Education	QPC662	Hockey	2
	QPC669	Soccer	
	QPC670	Netball	
<b>CURRICULUM STUDIES (Select one)</b>			
Physical Education	QPC665	Curriculum Gymnastics	2
	QPC671	Dance	
<b>CURRICULUM STUDIES (Select one)</b>			
Physical Education	QPC663	Softball	2
	QPC664	Tennis	
<b>CURRICULUM STUDIES [Select one from the list of Arts/Science Curriculum Studies subjects under PGDE (Secondary) section]</b>			
		Arts/Science Curriculum Studies subjects*	9
<b>ACADEMIC SUBJECTS</b>			
Physical Education	QPA621	Foundations of Psychology & Motor Learning in Physical Activity	3
<b>PRACTICUM</b>			
	QPR620	Teaching Practice 2	10

\* Student teachers assigned English Language as their Curriculum Subject (CS) are required to undertake English Language Content Enhancement (ELCE) courses. Description of ELCE is available in page 13.

## **CONTENTS OF CORE COURSES AND PRESCRIBED ELECTIVES**

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### **EDUCATION STUDIES**

The courses for QED520-527 are described in Education Studies section under PGDE Programme, Teaching at Secondary Level.

### **CURRICULUM STUDIES**

#### **The Teaching of ....**

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

## CURRICULUM STUDIES

### The Teaching of Physical Education

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	QPC520	Principles of Games	Core	2	-
	QPC521	Instructional Methods in Physical Education	Core	2	-
	QPC522	Outdoor Residential Camp	Core	1	-
	QPC562	Rugby	Prescribed	2	See @
	QPC563	Basketball	Prescribed	2	See @
	QPC567	Track and Field	Prescribed	2	See @
	QPC570	Swimming	Prescribed	2	See @
	QPC571	Badminton	Prescribed	2	See @
QPC572	Volleyball	Prescribed	2	See @	
2	QPC620	Instructional Strategies in Teaching of Physical Education	Core	3	-
	QPC621	Fitness and Conditioning	Core	1	-
	QPC662	Hockey	Prescribed	2	See @
	QPC663	Softball	Prescribed	2	See @
	QPC664	Tennis	Prescribed	2	See @
	QPC665	Curriculum Gymnastics	Prescribed	2	See @
	QPC669	Soccer	Prescribed	2	See @
	QPC670	Netball	Prescribed	2	See @
QPC671	Dance	Prescribed	2	See @	

@: Student teachers are expected to have some basic skills BEFORE the start of the course. Instructors reserve the right to refuse admission to the course if the individual is deemed to be lacking in the basic skills.

## YEAR 1

### **QPC520 Principles of Games**

This course is designed to introduce student teachers to the management strategies and theories underpinning the teaching of games. A broad spectrum of lead-up games will be presented covering four classifications of invasion, net/barrier, striking/fielding and target to provide a systematic and creative understanding of the transferability of principles. Game-sense will be developed through an eclectic conceptual development using elements of 'play practice', sport education, and tactical approaches.

### **QPC521 Instructional Methods in Physical Education**

This course covers the foundation skills of planning, teaching and evaluating physical education including: content selection and development; organization; instructional strategies; time on task, and student management systems; observation of student performance; and feedback provision. Course format will include lectures, discussions, practical experiences, group work, and microteaching in a neighbourhood school.

### **QPC522 Outdoor Residential Camp**

This course provides student teachers with the essential knowledge, skills and experience in outdoor education that will allow them to conduct similar outdoor education activities in schools. The course employs the experiential learning approach to prepare student teachers in areas such as programme planning, logistics management, risk

assessment and safety management, expedition planning, execution of activities, facilitation skills, and programme evaluation. Ample emphasis is given to making outdoor education a positive learning experience.

## **QPC562 Rugby**

The form of Sport Education incorporating Games Concept Approach, Inquiry Based Learning, Hellison's Levels of Responsibility, Situated Learning, Problem Solving and Decision Making, Independent and Self Paced Learning will be explored. Instructional characteristics will include: Festive atmosphere, Record keeping/accountability/statistical analysis/match reports, Consistent team with draft, Formal scheduled competition, Sport Education Roles, Modified Games. It is intended to combine Sport Education and Games Concept Approach as both programs provide a focus of student centeredness, and the development of games play through the early immersion of students into modified games situations. The focus is not on traditional development of sports skills rather on wider learning outcomes. Student teachers will have the opportunity to complete the International Rugby Union (IRB) Level 1, The Australia Rugby Union SMART Program and gain recognition by the Singapore Sports Council as registered coaches.

## **QPC563 Basketball**

A variety of practical applications including:  
1) individual on-ball and off-ball skill development,  
2) team/game situations and

- 3) delivery of a basketball class using action-station and team-teaching methods are used to improve skills and knowledge in basketball.

Student teachers will be able to assimilate that knowledge (apply it into the Physical Education pedagogy context) in a fun learning-oriented environment.

### **QPC567 Track and Field**

This course is designed to equip teachers with the necessary knowledge and skills to teach selected Track and Field Events.

Biomechanical, physiological, anatomical, pedagogical and social issues and concepts will be used to show the link between the sciences and Track and Field events. The benefits of track and field as a vehicle for fun and fitness, as well as growth and development will be emphasised.

In the second part of this course, basic coaching of Track & Field events will be emphasized so as to enable teachers to take charge of Track & Field as a CCA in the schools.

### **QPC570 Swimming**

This course aims to develop introductory teaching skills and stroke competencies in swimming. Student teachers will learn how to teach swimming to beginners by employing basic learn-to-swim and lead-up activities. Student teachers will be expected to practise, acquire and, finally, demonstrate correct and efficient technique in at least three out of the four swimming strokes (frontcrawl, breaststroke,

backstroke and butterfly). Other related skills of swimming such as floating, diving, and water games will also be introduced. Safety in and around swimming pools (and other aquatic environments) will be emphasized in this course. This course is primarily activity-based and hence, participation is required. Student teachers will be required to be in proper swimming attire for each lesson.

### **QPC571 Badminton**

Badminton is a game that volleys a shuttlecock across a net with rackets. In this course student teachers will be introduced to a variety of methods in which beginners could acquire the basic volleying skills in badminton (such as the net shots, drop shots and drives). The aim of this course is to enable student teachers to improve their volleying skills in badminton so that they are equipped with adequate badminton skills and learning strategies to enable them to teach badminton in school. The student teachers will also learn the basic rules of the game so that they will be able to umpire games in the competitions.

### **QPC572 Volleyball**

This course is designed to equip teachers-to-be with the necessary basic skills and teaching points in order to teach volleyball in Singapore schools. Special attention will be paid to acquiring the basic skills in volleyball i.e. forearm pass (dig), the face pass (volley), the serve (underarm and overhand), the spike and the block. Emphasis is placed on small-group activity and how to organize and conduct small-group activity in the school situation. Ample practice, reinforced with sound teaching points, is

given to the use of the basic skill/skills in small-group game situations. Information about the latest rules of the game and referee hand signals will also be incorporated into the course.

## YEAR 2

### **QPC620 Instructional Strategies in Teaching of Physical Education**

This course, second in a series, builds on foundation pedagogical knowledge and skills appropriate for school students. It develops competence in a variety of teaching methods including inquiry, problem solving, group work and peer-teaching. Emphasis is placed on Mosston's teaching styles as well as concept approach to the teaching of games. The focus is on planning, teaching and evaluating situationally relevant lessons. Student teachers will be encouraged to refine their own teaching through systematic observation and analytic reflection. Course content will be presented through lectures, seminars, practical workshops, peer- and micro-teaching assignments in a neighbourhood school.

### **QPC621 Fitness & Conditioning**

This course is designed to help student teachers understand the theoretical and practical considerations regarding physical fitness and its development. Equal emphasis will be given to health related as well as performance related components of physical fitness. Various methods of training and testing for the components of physical fitness will be dealt with in practicals. Planning and writing training plans will be the concluding part of this course.

### **QPC662 Hockey**

The game of hockey, while inherently exciting, is usually poorly taught in schools and is consequently labeled a dangerous game. The course aims to provide Physical Education teachers with the necessary skills and knowledge to present the game in a safe, yet enjoyable manner to their students.

### **QPC663 Softball**

This course is designed to impart basic softball skills and knowledge to teachers for the purpose of teaching children in a school setting. The emphasis of the course is on providing ample opportunities to play the game as well as to learn how to demonstrate basic skills.

### **QPC664 Tennis**

This course is designed to assist student teachers develop their basic tennis skills to a level of efficiency which will enable them to introduce and teach the games to beginners in schools.

### **QPC665 Curriculum Gymnastics**

This course will introduce the curriculum gymnastics to student teachers by means of thematic movement concepts based largely on floor activities and incorporating small and large apparatus. The aims of curriculum gymnastics will be espoused. The basic vocabulary of movement will be enhanced with emphasis on the cognitive and affective development through the appropriate use of pedagogical styles. In addition, basic floor, kipping and vaulting skills will be

taught with a focus on a mechanical understanding of the techniques involved as well as developing appropriate progression and competent spotting and an understanding of the biomechanical principles involved. Advances in video and computer technology will be introduced to student teachers to enhance their ability to analyse movement qualitatively. Student teachers will enhance self-confidence to teach gymnastics in a safe and fun way.

### **QPC669 Soccer**

This course is designed to impart basic soccer skills and knowledge to teachers to be for the purpose of teaching children in a school setting. The emphasis of the course is on providing ample opportunities to play the game as well as to gain better knowledge on how to teach students.

### **QPC670 Netball**

The course is designed to impart basic netball skills and knowledge to teachers for the purpose of teaching children in a school setting. The course will teach the basic skills of footwork, ball skills, goal shooting, and attacking/defending, as well as the application of these skills and game concepts/tactics in game play.

### **QPC671 Dance**

Teaching methods and resource for the planning and instruction of folk and line dances in the primary and secondary school curriculum. Teachers will learn dances from different cultures reflecting a variety of

styles and techniques. In addition, teachers are introduced to the methods of leading creative dance experiences for children. The teaching methods used enable the design of lessons appropriate for a wide range of ages, interests and developmental stages. It also aims to give teachers a chance to discover the creative juice in them and draw on the elements of dance to create their own dances.

## ACADEMIC SUBJECTS

### Physical Education

Year	Course Code	Title	Course Category	No. of AUs	Pre-requisites
1	QPA521	Growth and Motor Development	Core	2	-
	QPA522	Anatomical and Biomechanical Foundations of Physical Activity	Core	3	-
	QPA523	Physiology of Exercise	Core	2	-
	QPA524	Introduction to Physical Education & Sport	Core	2	-
2	QPA621	Foundations of Psychology & Motor Learning in Physical Activity	Core	3	Growth and Motor Development

#### QPA521 Growth and Motor Development

This course is designed to understand the relation between physical growth and motor development in children and adolescent. Various topics including stages, age related changes, individual differences, and gender differences in relation to growth and motor development will be covered during the course. In addition, interventional strategies to facilitate growth and motor development will be discussed. Implications for the teaching of physical education will be emphasized throughout the course.

#### QPA522 Anatomical and Biomechanical Foundations of Physical Activity

Structural anatomy deals with the knowledge and an understanding of the skeleton, joints and muscle structure that produces movement. Biomechanics is the study of a biological system by means of mechanics. This course introduces the basic mechanical and anatomical concepts and principles

that govern human movement. The aim of this course is to enable student teachers to perform qualitative analyses of human movement using basic concepts of mechanics and anatomy in the context of PE and sports.

### **QPA523 Physiology of Exercise**

The principal areas covered include energy metabolism for exercise, aerobic performance and anaerobic performance, sex and age-associated differences in exercise performances and thermoregulation in the heat. The associated teaching implications will be brought to the fore. In addition, aspects of functional anatomy dealing with the associated exercise parameters and the part each plays in physical performance, health and fitness will be discussed in this course.

### **QPA524 Introduction to Physical Education & Sport**

This course emphasises concepts related to the broad field of physical education and sport. It provides an overview of the disciplines that study the field's philosophical, historical, cultural, and sociological foundations and their applications to professional practice. The course examines the structure of the Singapore Sports Council, National Sport Associations, Singapore Schools Sports Council and the Co-Curricular Activities Branch and their relationships in promoting participation in sports from recreational to high performance levels. The daily work in physical education and sport, looking at the traditional field of teaching and coaching, is also highlighted. Current issues and future directions in the field are also explored.

## **QPA621 Foundations of Psychology & Motor Learning in Physical Activity**

This course examines the foundations of sport and exercise psychology and the concepts and principles associated with skill acquisition. Specifically, the course will focus on topics and issues related to the social psychological variables that influence participation in physical activity and sport, the sport and exercise environments within which participants operate, as well as selected outcomes of such participation.

## PRACTICUM

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QPR521	Teaching Practice 1	Core	5	-
QPR620	Teaching Practice 2	Core	10	TP 1

### QPR521/620 Teaching Practice

The Practicum is a very important component of the PGDE programme. Its principal function is to provide student teachers with the opportunity to develop teaching competencies in a variety of instructional contexts and at different levels, under the guidance and supervision of cooperating teachers and university lecturers. They will learn from experienced cooperating teachers about the schooling process and prepare themselves for their roles and responsibilities in teaching.

During the Practicum, student teachers will be able to use the knowledge and skills acquired in the subjects they read at the university, and have opportunities to integrate theory and practice in schools.

The Practicum will comprise a 5-week Teaching Practice 1 (TP 1), conducted at the end of year 1, and a 10-week Teaching Practice 2 (TP 2), conducted in the second year of study. In the course of the two attachments, 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 evaluation 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	Title	Course Category	No. of AUs	Pre-requisites
QLK520	Communication Skills for Teachers	Core	2	-

### QLK520 Communication Skills for Teachers

This is a practical course designed to provide student-teachers with the oral and writing skills necessary for effective communication as teachers in the classroom and in their professional interaction with colleagues, parents and the general public. Student teachers learn about vocal health care and quality, and the practice of good voice production. Pronunciation and word stress issues are also highlighted in the course. They are familiarized with the use of a pronunciation dictionary to help them resolve pronunciation and word stress difficulties. They become aware of the importance of considering the purpose, audience and context when communicating and learn how to communicate effectively to promote student learning. They also engage in practical hands-on activities of making oral and written presentations in a variety of school contexts. Built into the tutorials are opportunities for student teachers to reflect on their practices as well as on-going assignments and oral and written presentations to assess their application of the knowledge and skills that they acquire during the course.