



POSTGRADUATE DIPLOMA IN EDUCATION Jan - Dec 2009

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December 2008

## 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 one-year full-time programme beginning in January 2009 provides for some degree of specialisation in secondary school teaching.

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 two secondary school subjects, depending on the specialisation;
- (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 secondary education. Student teachers specialising in Secondary Education are further sub-divided into two categories: "General" and "Language Specialisation".

## **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:

Programme	Dates of Orientation (O) / Semester (S) / Recess (R) / Vacation (V)	Dates of Revision / Examination	Dates of Practicum
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)

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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 January. 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.

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.

## **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**

<b>Programme</b>	<b>Specialisation Section</b>	<b>Year of Study</b>	<b>Core Courses, Prescribed Electives &amp; Practicum</b>	<b>Total</b>
<b>PGDE</b>	Teaching General Subjects at Secondary Level	1	40	40
	Teaching of CL at Secondary Level	1	42	42

## **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)

### **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 secondary school level. These are designed to give student teachers the pedagogical skills in teaching specific subjects in Singapore schools.

### **PGDE (Secondary)**

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

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

CS1: The Teaching of Chinese Language

CS2: The Teaching of Chinese Literature

## **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.

**PGDE PROGRAMME  
TEACHING AT SECONDARY LEVEL**

## CURRICULUM STRUCTURE

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

**Table 2: Curriculum Structure of the PGDE (General, 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
	QED522	ICT for Engaged Learning	2
	QED523	The Social Context of Teaching and Learning	2
	QED524	Educational Psychology II: Teaching and Managing Diverse Learners in the Classroom	2
<b>EDUCATION STUDIES (Select 1)</b>			
	QED560	Computer Supported Collaborative Learning	2
	QED561	Technologies as Cognitive Tools	2
	QED562	Designing Effective Learning Environments	2
	QED563	Games and Simulations for Learning	2
	QED564	Designing for Communities of Practice	2
	QED565	Surviving and Thriving as a Beginning Teacher	2
	QED566	The Learning School: Innovation and Enterprise	2
	QED567	Creating Connections in the School Community	2
	QED568	Exploring Issues in Philosophy of Education	2
	QED569	Teachers as Leaders	2
	QED570	Multiculturalism in Singapore Schools	2
	QED571	Schooling in Meritocratic Societies	2
	QED572	Moral Education Across the Curriculum	2
	QED573	Psychology of Learning and Motivation	2
	QED574	Assessment and Alternative Assessment to Promote Thinking	2
	QED575	From Extrinsic Motivation to Passion: Diversified Approaches to Learning	2
	QED576	Developing Creativity in the Secondary Classroom	2
	QED577	Counselling and Guidance in Secondary Schools	2



Cont'd

Category/ Subject	Course Code	Title	No. of AUs
	QED578	Youth At-Risk: From the Classroom to the Courtroom?	2
	QED579	Facilitating Sexuality Education in Secondary Schools	2
	QED580	Understanding Social Behaviour of Secondary School Students	2
	QED581	Differentiating Instruction for Able Learners	2
	QED582	Teaching Students with Behavioural and Learning Problems	2
<b>CURRICULUM STUDIES (Any two as assigned)</b>			
	QCK	The Teaching of Accounting	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
	QCM	The Teaching of Lower Secondary Mathematics	9
	QCM	The Teaching of Mathematics	9
	QCP	The Teaching of Physics	9
	QCL	The Teaching of Social Studies	9
<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 12.

\* 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 12.

**Table 3: 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
	QED522	ICT for Engaged Learning	2
	QED523	The Social Context of Teaching and Learning	2
	QED524	Educational Psychology II: Teaching and Managing Diverse Learners in the Classroom	2
<b>EDUCATION STUDIES (Select 1)</b>			
	QED560	Computer Supported Collaborative Learning	2
	QED561	Technologies as Cognitive Tools	2
	QED562	Designing Effective Learning Environments	2
	QED563	Games and Simulations for Learning	2
	QED564	Designing for Communities of Practice	2
	QED565	Surviving and Thriving as a Beginning Teacher	2
	QED566	The Learning School: Innovation and Enterprise	2
	QED567	Creating Connections in the School Community	2
	QED568	Exploring Issues in Philosophy of Education	2
	QED569	Teachers as Leaders	2
	QED570	Multiculturalism in Singapore Schools	2
	QED571	Schooling in Meritocratic Societies	2
	QED572	Moral Education Across the Curriculum	2
	QED573	Psychology of Learning and Motivation	2
	QED574	Assessment and Alternative Assessment to Promote Thinking	2
	QED575	From Extrinsic Motivation to Passion: Diversified Approaches to Learning	2
	QED576	Developing Creativity in the Secondary Classroom	2
	QED577	Counseling and Guidance in Secondary Schools	2
	QED578	Youth At-Risk: From the Classroom to the Courtroom?	2
	QED579	Facilitating Sexuality Education in Secondary Schools	2
	QED580	Understanding Social Behaviour of Secondary School Students	2
	QED581	Differentiating Instruction for Able Learners	2
	QED582	Teaching Students with Behavioural and Learning Problems	2

Cont'd

Category/ Subject	Course Code	Title	No. of AUs
<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 12.

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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	-
QED522	ICT for Engaged Learning	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	-
<b>Choose one from the following Elective courses:</b>				
QED560	Computer Supported Collaborative Learning	Prescribed	2	-
QED561	Technologies as Cognitive Tools	Prescribed	2	-
QED562	Designing Effective Learning Environments	Prescribed	2	-
QED563	Games and Simulations for Learning	Prescribed	2	-
QED564	Designing for Communities of Practice	Prescribed	2	-
QED565	Surviving and Thriving as a Beginning Teacher	Prescribed	2	-
QED566	The Learning School: Innovation and Enterprise	Prescribed	2	-
QED567	Creating Connections in the School Community	Prescribed	2	-
QED568	Exploring Issues in Philosophy of Education	Prescribed	2	-
QED569	Teachers as Leaders	Prescribed	2	-
QED570	Multiculturalism in Singapore Schools	Prescribed	2	-
QED571	Schooling in Meritocratic Societies	Prescribed	2	-
QED572	Moral Education Across the Curriculum	Prescribed	2	-
QED573	Psychology of Learning and Motivation	Prescribed	2	-
QED574	Assessment and Alternative Assessment to Promote Thinking	Prescribed	2	-
QED575	From Extrinsic Motivation to Passion: Diversified Approaches to Learning	Prescribed	2	-
QED576	Developing Creativity in the Secondary Classroom	Prescribed	2	-

Course Code	Title	Course Category	No. of AUs	Pre-requisites
QED577	Counseling and Guidance in Secondary Schools	Prescribed	2	-
QED578	Youth At-Risk: From the Classroom to the Courtroom?	Prescribed	2	-
QED579	Facilitating Sexuality Education in Secondary Schools	Prescribed	2	-
QED580	Understanding Social Behaviour of Secondary School Students	Prescribed	2	-
QED581	Differentiating Instruction for Able Learners	Prescribed	2	-
QED582	Teaching Students with Behavioural and Learning Problems	Prescribed	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.

## **QED522 ICT for Engaged Learning**

The effective use of Information and Communications Technologies (ICT) for teaching and learning is critical for classroom environments in Singapore today. This course prepares participants to engage learners in their learning by using ICT-based activities. Participants will learn about the affordances of various ICT tools for designing activities such as self-directed learning and collaborative learning. They will also analyze critical issues that are related to using ICT in teaching such as managing an ICT-based classroom and cyberwellness. At the end of the course, participants will be able to demonstrate ICT integration in terms of designing and planning teaching and learning activities, by working collaboratively on ICT-based lesson ideas.

## **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 also seeks to help student teachers 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.

## **QED560 Computer Supported Collaborative Learning (CSCL)**

The use of CSCL helps foster student-centered approaches where individuals in a learning community make meaning collaboratively through innovative teaching practices. The Knowledge Building Community is a pedagogical model that exploits the affordances of CSCL technologies. In this course, student teachers will learn how to design thinking prompts to support intentional learning; facilitate social negotiation of ideas among students and structure the online environment to help students in organizing emergent understandings.

## **QED561 Technologies as Cognitive Tools**

In this course, the participants will be introduced to the concepts of cognitive tools. They will also be tasked to design lessons employing various forms of IT tools to engage students in higher order thinking. Some of the cognitive tools that will be introduced include mindmapping software, computer-mediated communication and model building tools. The use of IT as cognitive tools allows technological affordances to be exploited to enhance teaching and learning in the classrooms.

## **QED562 Designing Effective Learning Environments**

This course explores key components of learning environments for 21st century teaching and learning contexts. The design of effective learning environments involves the interplay of key components such as pedagogy, and Information and Communications Technologies (ICT) anchored on social-cultural settings. Building on the potential of some cutting edge technologies (e.g. web 2.0 and modeling and visualization technologies), the participants will be involved in designing learning processes (planning, representing knowledge, communicating, collaborating, and reflecting) appropriate for various subject-specific teaching and learning.



### **QED563 Games and Simulations for Learning**

Games and simulations are quickly becoming significant cultural phenomena that can support powerful forms of learning. This course introduces games and simulations as interactive digital media that can accomplish theoretical, pedagogical, and practical goals. Through writings, readings, and software analysis, the course explores games and simulations as cultural and social texts, as designed learning spaces, and as rule-based systems. We will also examine debates about how games and simulations function in classroom settings in order to better understand their values. Particular attention will be paid to the role of educational games and simulations as resources for teaching with problem-based and inquiry-based scenarios.

### **QED564 Designing for Communities of Practice**

This course capitalizes on communities of practice to situate learning in rich and meaningful contexts. It capitalizes on the concepts of situated learning, implicit and explicit knowledge and distributed cognition enabling holistic learning experiences. Because communities of practice is an increasingly important concept for enculturating a learning disposition in both teachers and students, strategies & issues for designing and fostering communities are introduced and discussed.

### **QED565 Surviving and Thriving as a Beginning Teacher**

This course discusses the various challenges facing beginning teachers in Singapore secondary schools

and junior colleges, and aims to better prepare them for their careers. Many teachers find the transition from their teacher preparation year to schools daunting because they often lack an adequate understanding of what lies ahead of them. This course will provide an opportunity for them to discuss and clarify their aspirations, expectations, fears and concerns; understand some of the key roles, responsibilities and challenges awaiting them in their relationships with other stakeholders in the school system; think about their career progression beyond the initial years. The main thrust in this course is on *personal* development and reflection as part of a growth process undertaken in collaboration with the course instructors and other course participants. In other words, there is no “one right track” or “one-size-fits-all” philosophy underlying the course.

### **QED566 The Learning School: Innovation and Enterprise**

The Singapore Ministry of Education has been introducing more flexibility and diversity into the Singapore education system. Its primary goal is to develop a broad-based education system in schools, highlighted by the concept of *Teach Less, Learn More*, to enhance and cultivate a spirit of innovation and enterprise among the students. With this emphasis, there are many implications to teaching and learning for school leaders, teachers and students. This course looks at how schools, through various forms of media, are actively positioning themselves to incorporate and support these reforms. This course will be taught through lectures, group work, directed reading and peer teaching.

## **QED567 Creating Connections in the School Community**

This course focuses on the school community and some aspects of school culture allowing participants to explore the importance of, and the processes involved in, building school-home-community links. It examines research on the benefits of parental involvement in schooling as well as provides opportunities for students to reflect through class activities and hands-on experiences of local school contexts. Participants will gain skills in conducting small-scale research into specific topics that will interest future educators. The course expectations also include active participation in the shared construction of understandings through class and online discussions.

## **QED568 Exploring Issues in Philosophy of Education**

This course explores philosophical issues in education through a select score of films. Topics include the concepts of education, teaching and learning, philosophical underpinnings for a meaningful classroom, and key policy concerns in education. This course encourages the student teachers to engage in philosophical inquiry – to reflect on their profession or vocation as teachers, question and establish their own assumptions, beliefs and values. Besides films, other innovative pedagogical tools and methods such as music videos, online lectures, online discussions, e-games, and peer teaching may be used to enhance the learning process.

## **QED569 Teachers as Leaders**

The role of the teacher is becoming increasingly complex. The teacher today is expected to be a life-long learner, passionate in his or her commitment to education. In addition, he or she must also be able to motivate and inspire students, deal diplomatically with parents, negotiate with officials, and solicit the support of community and business leaders. The teacher, in other words, is expected to be a kind of leader. But what does it mean for a teacher to be a leader? In this course we will explore various conceptions of leadership and enquire about their relation to the roles and responsibilities of teachers. What are the knowledge, skills, and attitudes that a teacher would need to develop in order to become a leader in education? Throughout this course students will be encouraged to refer to lessons from other courses in the programme, especially *The Social Context of Teaching and Learning*.

## **QED570 Multiculturalism in Singapore Schools**

Racial harmony and social cohesion have always been a major national goal in Singapore since independence. However, our understanding of racial harmony is more often than not superficial. In the current government's attempt at political, economic and social renewal, there is need for Singaporeans to make the transition from silent naïve tolerance to a deeper understanding of the different cultural traditions that make up Singapore society. But how do teachers promote racial harmony and social cohesion in the midst of heavy workload, changing curriculum, and an education system that emphasizes economic and academic pursuits? This

course will provide student teachers with learning opportunities to appreciate issues relating to multi-ethnicity in the Singapore context, how these issues surface in school and classroom practices, and creative ways to promote multiculturalism in schools.

### **QED571 Schooling in Meritocratic Societies**

Meritocracy is one of the “sacred cows” of Singapore’s education system. But does this mean that all students experience schooling in the same way? This course explores the implications of such a system for different groups of students (male/female, different racial/ethnic groups; socio-economic status) and some of the challenges these issues might pose for teachers in Singapore. By drawing on teaching and learning experiences in Singapore, as well as other meritocratic systems across the world, participants will have an opportunity to consider different strategies that can be used to manage these challenges.

### **QED572 Moral Education Across the Curriculum**

It has often been pointed out that every teacher is a moral educator. This course is an attempt to show why and how this saying is true. With help of actual examples, the course explores the various facets of a teacher’s work in the classroom, school and community in order to show that all subject teachers teach knowledge which are needed for our students’ complete understanding of their moral obligations within their specific life situations. They do this both within the curriculum and also at co-curricular activities. And beyond promoting the understanding of

moral obligations, all teachers also have a role in training students in the commitment, strength of will and skills needed for effective practice no matter what subject they teach and what CCA they conduct.

### **QED573 Psychology of Learning and Motivation**

The course examines learning and motivation theories in the context of student development and learning in variety of contexts – classroom and school activities as well as out-of-school environments. The role of the teacher as a motivator; motivating and demotivating factors affecting learning; and strategies for motivating different types of learners will be examined.

### **QED574 Assessment and Alternative Assessment to Promote Thinking**

This course will discuss the concepts of assessment, measurement, evaluation and testing and the integral role that assessments play in the teaching and learning process. Formative and summative evaluation will be considered employing conventional and alternative assessments to promote thinking. The different ways of assessing students' work, crafting assessment tasks and grading will be discussed together with consideration for the broader issues of validity, reliability and objectivity of the results. Problems, issues and research related to assessment will be discussed.

### **QED575 From Extrinsic Motivation to Passion: Diversified Approaches to Learning**

Motivation comes from the Latin verb *movere* (to move). In lay person's term, the idea of motivation is to get us going, keeps us moving, and helps us complete tasks. Despite the commonly held idea, all educators know that getting students to move is no simple task, especially if we want them to move in a direction desired by us. This course will look at the 'what' and 'why' of motivation, and examine 'how' we can move students from external motivation to nurturing in them a passion for learning by the use of diversified approaches to learning such as multiple intelligences and problem-based learning.

### **QED576 Developing Creativity in the Secondary Classroom**

The psychological principles of creativity development; essential concepts and techniques for promoting and assessing creative thinking in the classroom; the qualities of the creative product; procedures of the creative process; characteristics of the creative person; conditions of the creative environment; psychometric and consensual approaches to the assessment of creativity and individual differences in creativity.

### **QED577 Counseling and Guidance in Secondary Schools**

This course introduces the basic concepts and applications concerning the use of individual counseling and group guidance in the school setting. It is designed for teachers as well as teacher-

counsellors to learn basic individual counseling skills and basic group guidance skills for developmental, prevention, and intervention work. Simulated practice will be utilized throughout the course for skill acquisition and development.

**QED578 Youth At-Risk: From the Classroom to the Courtroom?**

This course provides student teachers with an in-depth understanding of the nature and causes of some of the more serious behavioural problems such as gang violence, suicidal tendencies, substance abuse and internet pornography, displayed by at-risk youths today. The course also serves to equip teachers with the appropriate strategies and preventive measures in handling some of these behavioural problems in the classroom before the adolescent faces incarceration in the courtroom. Intervention programmes offered by the Singapore Juvenile Court for handling such acts of deviance will also be discussed in the course.

**QED579 Facilitating Sexuality Education in Secondary Schools**

This course provides teachers with the content knowledge on human sexuality as well as pedagogic skills to deliver sexuality education to teenagers in secondary schools. Course participants will have the opportunity not only to update basic knowledge of physiological changes and development in adolescents, but also an awareness of attitudes and emotional, cultural and moral issues. Topics such as gender roles, sexual health and behaviour, and



intimate relationships as well as issues such as contraception, abortion, homosexuality and the influence of media and the Internet will be addressed.

### **QED580 Understanding Social Behaviour of Secondary School Students**

This course will examine the theories and research on social behaviour. Participants will learn to use developmental guidance to enhance learning and social interaction in the classroom. Issues such as group theories and techniques in group guidance, leadership, decision making, conflict resolution, social influence, prosocial and help-seeking behaviour, friendships and close relationships, and group problem-solving will be examined.

### **QED581 Differentiating Instruction for Able Learners**

The promise of an ability-driven curriculum and that all students will learn is mere rhetoric if teachers lack deep knowledge of learners and the pedagogical skills necessary to help learners of diverse abilities. There is a need to help teachers better understand the traits and needs of high-ability learners and to make needs-based curricular modifications and instructional decisions in mixed-ability settings. This course aims to help student teachers develop an overview of the conceptions of giftedness, understand the psychology and needs of the precocious student and develop appropriate, differentiated approaches to meet the learning needs of these students in mainstream classrooms.

## **QED582 Teaching Students with Behavioural and Learning Problems**

This course prepares future secondary school teachers in managing a classroom comprising students with diverse academic, emotional and behavioural challenges. The course emphasizes preventive, supportive and corrective measures for developing and maintaining positive learning environments for all students. Topics covered include causal and risk factors for learning and behavioural problems, an overview of academic, behavioural and social/emotional characteristics of students who manifest specific learning and behavioural problems, preliminary screening, identification and assessment, effective academic instructional strategies, social skills instruction, individual and group strategies for managing behaviours, and collaboration with parents and other professionals.

## 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 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 12.

### 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 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 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 they will be taking charge of. To improve their teaching efforts, they will be exposed to individual differences in learning, diagnosis, and strategies to deal with different ability groups as represented in the Gifted, Express, Normal (Academic) and Normal (Technical) Streams. Special effort will be devoted to helping the student teacher deal with critical incidents. Lectures on showmanship, creativity, thinking skills, inquiry, telling and explaining will be included as the key elements in support of good teaching.

### 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 covers important areas of Physics teaching pertaining to assessment and evaluation issues. It also deals with resource management, particularly with reference to laboratory work in the context of SPA. Safety in science laboratories, the role of practical work and the enhancement of science process skills are discussed. The setting of physics tests, marking and analyzing of test papers are covered with an emphasis on how to give useful feedback to students, parents and other stakeholders.

## 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.

## 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.