

**PGDE PROGRAMME SPECIALISING IN SECONDARY
SCHOOL TEACHING**

CURRICULUM STRUCTURE

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

Table 5 : Curriculum Structure of the PGDE (Secondary) Programme

Category/ Subject	Module Code	Title	No. of AUs
EDUCATION STUDIES			
	PED513	Instructional Technology	2
	PED514	Social Context of Teaching and Learning	2
	PED515	The Psychology of Pupil Development and the Learning Process	2
	PED516	Teaching and Classroom Management	2
EDUCATION STUDIES (Select 1)			
	PED551	Assessment for Effective Learning	2
	PED552	Guidance and Counselling in Secondary Schools	2
	PED553	Teaching Pupils with Behavioural and Learning Problems	2
	PED554	Instructional Design and Computer-based Learning	2
	PED556	Educational Ideas and Contemporary Teaching Issues	2
	PED557	Home Influences on School Effectiveness	2
	PED558	The Psychology of Learning and Motivation	2
	PED559	Classroom Management and Discipline	2
	PED560	Strategies for Effective Thinking and Learning	2
	PED561	Using Pupil Learning Style to Maximise Instructional Effectiveness	2
	PED562	Classroom Planning to Enhance Pupil Learning	2
	PED563	Understanding and Helping Gifted and Talented Pupils	2
	PED564	Comparative Issues in Educational Policy	2
	PED565	Understanding and Teaching Creative and Critical Thinking	2
	PED566	Motivating Pupils for Learning and Thinking	2
	PED567	Assessment to Promote Thinking in Secondary Schools	2
	PED568	Moral Issues in Cross-curricular Perspective	2

cont'd

Category/ Subject	Module Code	Title	No. of AUs
EDUCATION STUDIES (cont'd)			
	PED569	Developing Creativity in the Secondary Classroom	2
	PED570	Understanding Social Behaviour of Secondary School Students	2
	PED571	Advanced Social and Educational Measurement	2
	PED572	Instructional Strategies and Learning Effectiveness	2
	PED573	Teaching, Curriculum and the Learning Organisation	2
	PED574	Handling Crises	2
	PED575	Computer Applications in Educational Assessment	2
	PED576	Motivating Students to Learn and Think	2
	PED577	Achieving the Desired Outcomes of Education through Project Work in Secondary Schools	2
	PED578	Using IT for Teaching and Assessment	2
	PED579	Facilitating Sexuality Education in Secondary Schools	2
	PED580	Constructive Learning with the Internet	2
CURRICULUM STUDIES (Any two as assigned by MOE)			
	PCK	The Teaching of Accounting	8
	PCA	The Teaching of Art	8
	PCB	The Teaching of Biology	8
	PCY	The Teaching of Chemistry	8
	PCF	The Teaching of Commerce/Management	8
	PCQ	The Teaching of Computer Applications	8
	PCQ	The Teaching of Computing	8
	PCN	The Teaching of Design and Technology	8
	PCO	The Teaching of Economics	8
	POA	The Teaching of Elements of Office Administration	8
	PCE	The Teaching of English Language	8+2
	PCG	The Teaching of Geography	8
	PCW	Guidance & Counselling	8
	PCH	The Teaching of History	8
	PCX	The Teaching of Home Economics	8
	PCR	The Teaching of Lower Secondary English Literature	8
	PCG	The Teaching of Lower Secondary Geography	8+2
	PCH	The Teaching of Lower Secondary History	8+2
	PCM	The Teaching of Lower Secondary Mathematics	8

Category/ Subject	Module Code	Title	No. of AUs
	PCD	The Teaching of Malay Language	8
	PCM	The Teaching of Mathematics	8
	PCI	The Teaching of Music	8
	PCP	The Teaching of Physics	8
	PCT	The Teaching of Tamil Language	8
PRACTICUM			
	PPR511❖	Practicum	0
LANGUAGE ENRICHMENT AND ACADEMIC DISCOURSE SKILLS			
Use of English in Teaching	PCU511☒	Use of English in Teaching	0
Use of Malay in Teaching	PCU516 ⁺	Use of Malay in Teaching 1	1
	PCU517 ⁺	Use of Malay in Teaching 2	1
Use of Tamil in Teaching	PCU518 ⁺⁺	Use of Tamil in Teaching 1	1
	PCU519 ⁺⁺	Use of Tamil in Teaching 2	1

- ❖ Although the Practicum carries zero AUs, a trainee teacher must pass the Practicum before he/she can be awarded the PGDE.
- ☒ This module is offered on a Pass/Fail basis. A Pass is required in order to fulfil the programme requirements.
- + In addition to the Use of English in Teaching, trainee teachers doing the Teaching of Malay Language as their second CS subject must do Use of Malay in Teaching.
- ++ In addition to the Use of English in Teaching, trainee teachers doing the Teaching of Tamil Language as their second CS subject must do Use of Tamil in Teaching.

Table 6 : Curriculum Structure of the PGDE (Teaching of CL/ML/TL at Secondary Level) Programme

Category/ Subject	Module Code	Title	No. of AUs
EDUCATION STUDIES			
	PED513	Instructional Technology	2
	PED514	Social Context of Teaching and Learning	2
	PED515	The Psychology of Pupil Development and the Learning Process	2
	PED516	Teaching and Classroom Management	2
EDUCATION STUDIES (Select 1)			
	PED551	Assessment for Effective Learning	2
	PED552	Guidance and Counselling in Secondary Schools	2
	PED553	Teaching Pupils with Behavioural and Learning Problems	2
	PED554	Instructional Design and Computer-based Learning	2
	PED556	Educational Ideas and Contemporary Teaching Issues	2
	PED557	Home Influences on School Effectiveness	2
	PED558	The Psychology of Learning and Motivation	2
	PED559	Classroom Management and Discipline	2
	PED560	Strategies for Effective Thinking and Learning	2
	PED561	Using Pupil Learning Style to Maximise Instructional Effectiveness	2
	PED562	Classroom Planning to Enhance Pupil Learning	2
	PED563	Understanding and Helping Gifted and Talented Pupils	2
	PED564	Comparative Issues in Educational Policy	2
	PED565	Understanding and Teaching Creative and Critical Thinking	2
	PED566	Motivating Pupils for Learning and Thinking	2
	PED567	Assessment to Promote Thinking in Secondary Schools	2
	PED568	Moral Issues in Cross-curricular Perspective	2
	PED569	Developing Creativity in the Secondary Classroom	2
	PED570	Understanding Social Behaviour of Secondary School Students	2
	PED571	Advanced Social and Educational Measurement	2
	PED572	Instructional Strategies and Learning Effectiveness	2
	PED573	Teaching, Curriculum and the Learning Organisation	2

Category/ Subject	Module Code	Title	No. of AUs
	PED574	Handling Crises	2
	PED575	Computer Applications in Educational Assessment	2
	PED576	Motivating Students to Learn and Think	2
	PED577	Achieving the Desired Outcomes of Education through Project Work in Secondary Schools	2
	PED578	Using IT for Teaching and Assessment	2
	PED579	Facilitating Sexuality Education in Secondary Schools	2
	PED580	Constructive Learning with the Internet	2
CURRICULUM STUDIES (Select either Chinese, Malay or Tamil Language)			
Chinese Language	PCC511	Teaching of Chinese Language 1	5
	PCC512	Teaching of Chinese Language 2	3
Malay Language	PCD510	Teaching of Malay Language 1	5
	PCD511	Teaching of Malay Language 2	3
Tamil Language	PCT511	Teaching of Tamil Language 1	5
	PCT512	Teaching of Tamil Language 2	3
CURRICULUM STUDIES (Select the same language as in first Curriculum Studies)			
Chinese Literature	PCJ511	Teaching of Chinese Literature 1	6
	PCJ512	Teaching of Chinese Literature 2	2
Malay Literature	PCJ513	Teaching of Malay Literature 1	6
	PCJ514	Teaching of Malay Literature 2	2
Tamil Literature	PCJ515	Teaching of Tamil Literature 1	5
	PCJ516	Teaching of Tamil Literature 2	3
PRACTICUM			
	PPR511❖	Practicum	0
LANGUAGE ENRICHMENT AND ACADEMIC DISCOURSE SKILLS (Select the same language as in first Curriculum Studies)			
Use of Chinese in Teaching	PCU514	Use of Chinese in Teaching 1	1
	PCU515	Use of Chinese in Teaching 2	1
Use of Malay in Teaching	PCU516	Use of Malay in Teaching 1	1
	PCU517	Use of Malay in Teaching 2	1
Use of Tamil in Teaching	PCU518	Use of Tamil in Teaching 1	1
	PCU519	Use of Tamil in Teaching 2	1

- ❖ Although the Practicum carries zero AUs, a trainee teacher must pass the Practicum before he/she can be awarded the PGDE.

CONTENTS OF CORE MODULES AND PRESCRIBED ELECTIVES

EDUCATION STUDIES

Education Studies will acquaint trainee teachers with the key concepts and principles in education that are necessary for effective instruction and reflective practice in secondary schools. The modules will deal with pupil development, the social context within which schooling operates, the application of psychology in teaching and learning, proactive approaches to develop creative and critical thinking skills and the use of instructional technologies in the classroom.

The Education Studies component comprises two groups of modules namely *CORE MODULES* and *PRESCRIBED ELECTIVES*. The core modules are compulsory as they deal with basic educational concepts and principles. The prescribed electives allow choices which are intended to provide trainee teachers with an opportunity for in-depth and rigorous study of some significant areas in the field of education and to serve as a basis for the application of educational principles in a variety of instructional contexts.

Education Studies

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PED513	Instructional Technology	Core	2	-
PED514	Social Context of Teaching and Learning	Core	2	-
PED515	The Psychology of Pupil Development and the Learning Process	Core	2	-
PED516	Teaching and Classroom Management	Core	2	-
PED551	Assessment for Effective Learning	Prescribed	2	-
PED552	Guidance and Counselling in Secondary Schools	Prescribed	2	-
PED553	Teaching Pupils with Behavioural and Learning Problems	Prescribed	2	-
PED554	Instructional Design and Computer-based Learning	Prescribed	2	-
PED556	Educational Ideas and Contemporary Teaching Issues	Prescribed	2	-
PED557	Home Influences on School Effectiveness	Prescribed	2	-
PED558	The Psychology of Learning and Motivation	Prescribed	2	-
PED559	Classroom Management and Discipline	Prescribed	2	-
PED560	Strategies for Effective Thinking and Learning	Prescribed	2	-
PED561	Using Pupil Learning Style to Maximise Instructional Effectiveness	Prescribed	2	-
PED562	Classroom Planning to Enhance Pupil Learning	Prescribed	2	-
PED563	Understanding and Helping Gifted and Talented Pupils	Prescribed	2	-
PED564	Comparative Issues in Educational Policy	Prescribed	2	-
PED565	Understanding and Teaching Creative and Critical Thinking	Prescribed	2	-
PED566	Motivating Pupils for Learning and Thinking	Prescribed	2	-
PED567	Assessment to Promote Thinking in Secondary Schools	Prescribed	2	-
PED568	Moral Issues in Cross-curricular Perspective	Prescribed	2	-

cont'd

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PED569	Developing Creativity in the Secondary Classroom	Prescribed	2	-
PED570	Understanding Social Behaviour of Secondary School Students	Prescribed	2	-
PED571	Advanced Social and Educational Measurement	Prescribed	2	-
PED572	Instructional Strategies and Learning Effectiveness	Prescribed	2	-
PED573	Teaching, Curriculum and the Learning Organisation	Prescribed	2	-
PED574	Handling Crises	Prescribed	2	-
PED575	Computer Applications in Educational Assessment	Prescribed	2	-
PED576	Motivating Students to Learn and Think	Prescribed	2	-
PED577	Achieving the Desired Outcomes of Education through Project Work in Secondary Schools	Prescribed	2	-
PED578	Using IT for Teaching and Assessment	Prescribed	2	-
PED579	Facilitating Sexuality Education in Secondary Schools	Prescribed	2	-
PED580	Constructive Learning with the Internet	Prescribed	2	-

PED513 Instructional Technology

Learning, thinking, and the effective use of instructional technologies in the classroom; instructional planning models; selecting, creating, evaluating, and integrating instructional technologies and resource materials; promoting creativity and complex thinking through IT project work activities; organising and managing instructional activities with appropriate IT resources in the classroom.

PED514 Social Context of Teaching and Learning

The historical development, structure and organisation of the Singapore education system; key education policies. Sociological perspectives on teaching, learning and socialisation: the school and society; home and school; effective school organisation; teaching as a profession. Philosophical perspectives on teaching and learning: the concept of education; moral education; authority, freedom and education.

PED515 The Psychology of Pupil Development and the Learning Process

Understanding different aspects of adolescent development and how these influence the teaching and learning processes. It covers physical changes in adolescence, stages of moral development, formation of identity and the self-concept, and theories of intellectual development. Application of psychological principles and learning theories to classroom learning, understanding how pupils learn and how some pupils fail to learn; proactive approaches to motivate and enhance learning to develop creative and critical thinking, problem-solving skills and remedial measures to help weaker pupils.

PED516 Teaching and Classroom Management

Emphasis on the application of pedagogical knowledge and instructional skills for facilitating learning, the understanding of different models of

classroom management and the role of classroom management in fostering academic achievement and appropriate pupil behaviour in different classroom settings such as, computer and science laboratories and subject rooms, and the process of evaluating the teaching-learning process. In addition, the importance of the practices of proactive classroom management and positive interpersonal teacher behaviour on classroom learning is stressed.

PED551 Assessment for Effective Learning

Role of assessment in the learning process; assessment practices in Singapore schools; basic knowledge and practical skills of monitoring and assessing pupils' learning; essentials of measurement in the cognitive, affective and behavioural domains; the use and construction of classroom tests; item analysis and test reporting; basic statistics for educational measurement; use of computer in educational assessment; evaluation of teaching and learning.

PED552 Guidance and Counselling in Secondary Schools

Principles and practice of Pastoral Care and Career Guidance and its introduction to Singapore schools; group dynamics in the classroom and techniques in developmental group guidance; social and psychosocial factors affecting the personal development and learning of pupils; assessment of guidance needs; career development and career guidance needs of

adolescents; the helping process and basic counselling skills.

PED553 Teaching Pupils with Behavioural and Learning Problems

Types and classification of behavioural and learning problems; identification and diagnosis; causal factors; behaviour management; multidisciplinary approach in evaluation and intervention.

PED554 Instructional Design and Computer-based Learning

The application of effective instructional software design principles to design, develop and evaluate a small web-based learning project. The use of a variety of software technologies, including appropriate authoring tools to create web-based learning objects. Participants for this course must have very good computer skills and have to attend appropriate software training prior attendance to this module.

PED556 Educational Ideas and Contemporary Teaching Issues

Reform and school effectiveness; key issues in the secondary school environment; drop-outs and the educational disadvantages of working class children; subject-centred curriculum; background to the Progressive Education Movement; educational ideas of Rousseau,

Pestalozzi, Russell and AS Neill; and beginning teachers' concerns.

PED557 Home Influences on School Effectiveness

The notion of the effective school and the development of the effective school movement; the influence of the home and the school on school outcomes; major effective school studies; globalisation, the knowledge-based economy and schooling in Singapore; effective schools in Singapore; conventional and radical expressions of home influences on schooling; self-help groups and stakeholders in Singapore; forms of home-school relations; meeting parents.

PED558 The Psychology of Learning and Motivation

The role of the teacher as a motivator; motivating and demotivating factors affecting learning; strategies for motivating different types of learners.

PED559 Classroom Management and Discipline

Recent research and development in classroom management and implications for teaching; teacher expectations/behaviours and their influence on pupil behaviour; establishing a supportive learning environment; issues in classroom management approaches and principles and practice of effective classroom management and discipline.

PED560 Strategies for Effective Thinking and Learning

The place of thinking skills in teaching and learning; different types of thinking skills; the role of the teacher in creating a learning environment conducive for thinking; relevant thinking programmes and their implications for classroom practice; teaching thinking skills to enhance learning; observing, monitoring and evaluating the development of thinking skills in the learner.

PED561 Using Pupil Learning Style to Maximise Instructional Effectiveness

Learning styles as one of the crucial factors for pedagogical decisions. The 'mind qualities' of the learners in terms of teaching strategies that can be used to maximise effective learning in the classroom.

PED562 Classroom Planning to Enhance Pupil Learning

Planning of programmes, classroom practices and resources to meet the needs of individual students; making effective use of audiovisual resources; support materials and different strategies to encourage active learning; encouraging students to become autonomous learners.

PED563 Understanding and Helping Gifted and Talented Pupils

Definition of terms; issues; concept of "academic excellence"; nature and identification of high ability pupils; development of the gifted education movement from Plato to the present time; overview of gifted education world-wide; justification for and against special provisions for the gifted; the role of the home and school; strategies to promote the growth and development of gifted and talented pupils.

PED564 Comparative Issues in Educational Policy

Why compare? Education and development. Financing and control of education. The education of women. Language issues in education. Ethnicity issues in education. Education and political transition. The politics of curriculum policymaking. Teacher education and teacher development.

PED565 Understanding and Teaching Creative and Critical Thinking

Preview of alternative conceptions of critical and creative thinking. Characteristics and competencies of critical and creative thinkers. Instruments to assess critical and creative thinking. Opportunities to diagnose thinking dispositions. Advice provided on how teachers can bring about critical and creative thinking in the context of the classroom.

PED566 Motivating Pupils for Learning and Thinking

Skills that teachers can acquire to promote pupils' learning and thinking. Enabling pupils to learn for retention. Thinking organisers for critical thinking and structures for creative thinking. Preparing teachers to create a motivating classroom environment for effective learning and thinking.

PED567 Assessment to Promote Thinking in Secondary Schools

Understanding and applying the basic principles in assessment to the classroom situation. Basic knowledge and practical skills to manage and monitor pupils' learning at the secondary level. Covers alternative modes of assessment to assess different thinking skills.

PED568 Moral Issues in Cross-curricular Perspective

Morality as subject and as process. How teachers educate for commitment; the will to act and the development of morally important skills. Curriculum subjects as sources for moral teaching; extra-curricular subjects and moral development. Implications for secondary school teaching in Singapore.

PED569 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.

PED570 Understanding Social Behaviour of Secondary School Students

Social behaviour in the school and classroom; how students and teachers think about and interact with each other; how students think about their own attitudes and behaviour and how these are influenced by situational and social factors; self-esteem; social identity; helping and aggressive behaviour; obedience and conformity; leadership; and close relationships.

PED571 Advanced Social and Educational Measurement

Essential topics in advanced social and educational measurement, particularly in Item Response Theory (IRT) and attitude measurement models; quantitative study and applications; some basic knowledge of probability and statistics; the usage and application of related computer software

integrated with the theory of advanced social and educational measurement.

PED572 Instructional Strategies and Learning Effectiveness

Careful planning and implementation of instruction for effective learning; various instructional strategies such as whole-class teaching, small group instruction, group work, individual instruction, out-of-classroom instruction, games and simulation and their effective implementation for facilitating learning in the classroom; the importance of empowerment of students in learning and the teaching of thinking and learning strategies to students during the process of instruction.

PED573 Teaching, Curriculum and the Learning Organisation

The school as a 'learning organisation' critically examined through discussions, presentations and selected readings. The role of teachers, in adapting to a global knowledge-based society; school and classroom implications of new educational initiatives (e.g. IT Masterplan, Critical & Creative Thinking, National Education) and the move from an 'efficiency-driven' system to an 'ability-driven' system; teaching and classroom management implications for new teachers entering a rapidly changing education system; how beginning teachers can understand and adapt to the new educational environment.

PED574 Handling Crises

Preparing teachers for a variety of crises that may arise in secondary school classrooms. Teachers' responsibilities and options for action in crises. An overview of challenges resulting from substance abuse, street gangs, suicidal behaviour, date rape, family tensions and other personal as well as health-related emergencies. Current community resources available to secondary school teachers handling such crises.

PED575 Computer Applications in Educational Assessment

State-of-the-art computer software for various assessment tasks, including item banking, item analysis, item calibration, test construction, test administration, test scoring and test reporting, and their applications for school-based testing. An examination of some benefits and/or limitations of using computers for educational assessment.

PED576 Motivating Students to Learn and Think

Students learn well when they are highly motivated. Teachers can acquire strategies to instil positive attitude and perceptions about learning among their students. Knowing how the brain learns also enables teachers to use brain compatible teaching strategies so that students will learn better and faster. Using cooperative learning activities and catering to different learning styles will enable more students to

acquire learning-to-learn and thinking skills in an enjoyable manner.

PED577 Achieving the desired outcomes of education through project work in secondary schools

The module attempts to relate the initiatives introduced through the concept of “Thinking School Learning Nation” (1997) to the Desired Outcomes of Education (1998). The rationale for the inclusion of Project Work as one of the criteria for University admission will be discussed. Ways of building teamwork, application of thinking strategies, infusion of thinking skills, development of metacognitive skills, critical thinking, creative thinking, management of group project and assessment of group project work will be the topics covered in this module. Assessment of this module will be by group project. Marks will be given for individual reflective journal writing and peer evaluation. This mode of assessment will give participants a chance to be acquainted with the task awaiting for them in school.

PED578 Using IT for Teaching and Assessment

The use of IT in schools is a key strategy laid out by Singapore’s Masterplan for IT in Education. School teachers are called upon to use IT in their teaching to help pupils with learning skills, creative thinking and communication skills. This module is designed to prepare trainee teachers with some essential IT techniques to create an IT-enhanced learning environment and conduct

IT-based classroom assessment. Participants of this module are supposed to have taken the IT workshops or have equivalent knowledge and skills. The techniques covered by this module include classroom presentation, simple data analysis from educational assessment and psychological measurement.

PED579 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 gain basic knowledge of physiological changes and development in adolescents, but also develop an awareness of attitudes and emotional, cultural and moral issues. They will participate in hands-on activities that facilitate and promote discussions. Topics such as gender roles, sexual health and behaviour, and intimate relationships, as well as issues such as contraception, abortion and homosexuality will be addressed.

PED 580 Constructive Learning with the Internet

In this knowledge and information age, ability to process information and to construct one's knowledge has become an important life skill. To remain a confident and competent citizen in this new millennium, one has to be a life-long and self-directed learner. Internet is perhaps the fastest expanding source of information and its

potential as educational resources is tremendous. This course aims to provide trainee teachers an understanding of the affordances of the Internet and its various applications in education so that they can use Internet effectively in teaching and in encouraging self-directed constructive learning.

CURRICULUM STUDIES

The Curriculum Studies options are teaching subjects relevant to the needs of secondary schools, junior colleges and centralised institutes. The aim in teaching Curriculum Studies is to expose trainee teachers to the syllabi and textbooks in the curriculum and train the trainee teachers in the methods and techniques of teaching subjects at the secondary and junior college levels. Trainee teachers in training will be assigned to specialise in two curriculum subject areas.

The Teaching of Accounting

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCK511	Teaching Principles of Accounts at Secondary Level	Core	6	-
PCK512	Instructional Approaches for 'A' Level Accounting	Core	2	-

PCK511 Teaching Principles of Accounts at Secondary Level

The basic foundation to Accounting teaching. Curriculum planning: structure and rationale for the discipline in the school curriculum; problems with learning accounting; selecting and sequencing the subject content based on the thematic and mastery learning approaches; basic skills, strategies and resources employed to teach Principles of Accounts; planning Accounts lessons for the express and normal pupils. Micro-teaching: presenting selected topics in Accounts; demonstrating various teaching skills and competencies under simulated classroom

conditions; peer feedback and self-reflection. Evaluation strategies for 'O' level Accounting: test analysis and construction; diagnosis, feedback and remediation. Technology in accounting education.

PCK512 Instructional Approaches for 'A' Level Accounting

The Principles of Accounting curriculum at the commercial institutes. Use of inquiry approaches to develop higher level skills in Accounting: guided discovery learning, cooperative learning, peer tutoring in mastery learning and problem-based learning approaches. Use of practice sets and projects in Accounting.

The Teaching of Art

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCA511	Teaching Art at the Secondary Level	Core	1	-
PCA512	Artistic Processes and the Art Curriculum I	Core	3	-
PCA513	Ceramics	Core	2	-
PCA515	Artistic Processes and the Art Curriculum II	Core	2	-

PCA511 Teaching Art at the Secondary Level

A survey of historical and theoretical developments in secondary art education with particular emphasis on recent international theories and practices in the field regarding creativity and their importance for art education in Singapore. Strategies for the implementation of IT to expand the range of available creative options. The infusion of National Education (NE) into the art curriculum.

PCA512 Artistic Processes and the Art Curriculum I

Study of an area of two-dimensional studio practice that can be used at the secondary level. Exploration of the theoretical underpinnings of different creative art practices and the curricular implications of IT and NE in a developmental approach to encourage the intellectual and emotional development of students in the secondary school.

PCA513 Ceramics

An introduction to the teaching of ceramics at the secondary level including a range of ceramic forming techniques and exploration of decoration, glazing and firing techniques. Emphasis on a creatively developmental approach with due consideration of the incorporation of IT and NE.

PCA515 Artistic Processes and the Art Curriculum II

Building on the Semester 1 modules, the development by trainee teachers of a body of work in a chosen area of studio practice, to be used as a focus to investigate aspects of secondary art education such as syllabus and lesson planning and development including the use of IT. Evaluation strategies as transferable skills. The rich multicultural heritage and recent history of Singapore as a locus of student identity.

The Teaching of Biology

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCB511	Teaching of Biology I	Core	2	-
PCB512	Teaching of Biology II	Core	4	-
PCB513	Teaching of Biology III	Core	2	-

PCB511 Teaching of Biology I

Three areas of psychological concern that underline the teaching of Biology/Science.

- The nature of science : a paradigm for the analysis and rationale of the biology curriculum in schools.
- Concept Learning : including individual differences between pupils in different ability streams; readiness and sequential learning; learning styles; perceptual and conceptual differences; misconceptions, alternative conception and conceptual change; and meaningful learning.
- Thinking and Learning : with creative and critical thinking; cognitive development, inductive - deductive learning; problem-solving and inquiry/discovery learning.

PCB512 Teaching of Biology II

The Biological Sciences curriculum in Singapore schools from Primary Science to Pre-University levels, vis-à-vis the relevant syllabi, textbooks, teachers' guides and reference journals. Guidance/coaching in the planning of Biology lessons for pupils of different ability ranges and levels in secondary schools. Basic teaching skills together and the variety of teaching/learning strategies, thinking/study skills and cooperative learning strategies. Practice of these skills in camera. The management and control of pupil behaviour together with safety practices in science laboratories. IT and its application for Biology teaching with reference to material and resources from the Internet.

PCB513 Teaching of Biology III

Issues on the what and why of testing in science, formulating tables of specification for test construction, worksheet preparation, practical skills assessment, marking of examination scripts, analysis of test scores and its implications for teachers and teaching styles. The role of resource centres in planning for field trips in Biology teaching outside the classroom.

The Teaching of Chemistry

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCY511	The Teaching of Chemistry I	Core	4	-
PCY512	The Teaching of Chemistry II	Core	2	-
PCY513	The Teaching of Chemistry III	Core	2	-

PCY511 The Teaching of Chemistry I

Basic 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. The integration of IT into the chemistry curriculum. The planning and teaching strategies crucial for the effective teaching of chemistry that includes unit and lesson planning, the inquiry approach, constructivist approach, problem-solving, expository teaching, demonstrations, practical work and project work. The preparation and use of teaching aids and resource materials.

PCY512 The Teaching of Chemistry II

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. Trainee teachers practise the relevant skills through mini-presentations on selected chemistry topics at the secondary level. Presentations by trainee teachers are reviewed and critiqued by peers and the tutor.

PCY513 The Teaching of Chemistry III

The effective evaluation of chemistry teaching and learning. Purposes of evaluation, tables of specifications, tests construction, administration, marking, and analysis; interpretation of test scores. Alternative assessment modes such as open-book tests, take-home examinations, concept mapping, assessment of attitudes and values, and in particular, the use of project work will be considered. The management of the Chemistry laboratory and laboratory safety will also be discussed.

The Teaching of Chinese Language

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCC511	Teaching of Chinese Language 1	Core	5	-
PCC512	Teaching of Chinese Language 2	Core	3	-

PCC511 Teaching of Chinese Language 1

Different theories of language acquisition. Various approaches to the teaching of Chinese in the bilingual context of Singapore. The development of listening, speaking and reading skills with various levels of thinking skills. Chinese language testing. IT for the teaching of Chinese language.

PCC512 Teaching of Chinese Language 2

Various approaches to the teaching of Chinese vocabulary and syntax. The objectives and various approaches to the teaching of writing skills with various levels of thinking skills. IT for the teaching of Chinese language.

The Teaching of Chinese Literature

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCJ511	Teaching of Chinese Literature 1	Core	6	-
PCJ512	Teaching of Chinese Literature 2	Core	2	-

PCJ511 Teaching of Chinese Literature 1

The aims and objectives of teaching Chinese literature. Criteria for selecting literary texts and reading materials. Teaching of the history of Chinese literature. Various approaches and strategies for the teaching of Chinese poetry, short stories and novels. Questions with various levels of thinking skills for teaching and testing. IT for the teaching of Chinese literature.

PCJ512 Teaching of Chinese Literature 2

The organisation of meaningful activities for the appreciation of Chinese prose and drama. Questions with various levels of thinking skills for teaching and testing. IT for the teaching of Chinese literature.

The Teaching of Commerce/Management

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCF511	Teaching Commercial Studies to 'N' Pupils	Core	4	-
PCF512	Teaching Computing in Commercial Studies	Core	2	-
PCF513	Instructional Approaches for Management of Business	Core	2	-

PCF511 Teaching Commercial Studies to 'N' Pupils

Developing basic skills for teaching Commerce in Singapore schools. Managing 'N' level pupils. Analysing the Commercial Studies syllabus. Introduction of a variety of classroom methods relevant to the teaching and learning of Commercial Studies at 'O' level. Planning Commerce lessons; applying various teaching strategies and techniques. Demonstrating teaching skills and competencies through micro-teaching. Developing critique and self-reflection abilities. Different methods of assessment to facilitate effective learning in Commercial Studies. Information technology in commerce education.

PCF512 Teaching Computing in Commercial Studies

Rationale for computing in Commercial Studies syllabus. 'N' level pupils' attitude towards computers. Managing computer facilities and pupil behaviour in the computer laboratory. Preparing to teach computing in commercial studies using various instructional approaches, strategies and materials. Practise computing teaching skills in micro-teaching sessions. Assessment in the computing component of the commercial studies syllabus; designing tests, diagnosis of learning and remediation.

PCF513 Instructional Approaches for Management of Business

Introduction to the Management of Business curriculum at the commercial institutes. Use of inquiry/discovery/investigative methods to develop higher-order thinking abilities: cooperative group work, discussion, case studies, role-playing, project work, simulated decision-making and problem-solving.

The Teaching of Computer Applications

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCQ522	Topics in Computer Applications	Core	4	-
PCQ524	Computer Laboratories and Resources	Core	1	-
PCQ526	Assessment and Coursework	Core	2	-
PCQ527	Instructional Approaches in Computer Applications	Core	1	-

PCQ522 Topics in Computer Applications

The various topics in the syllabus 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. Activities and instructional materials relevant to each area. The opportunity to practise teaching skills during micro-teaching sessions. Tutor and fellow students give feedback and suggestions on various aspects of teaching competencies for reflection and further practice.

PCQ524 Computer Laboratories and Resources

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.

PCQ526 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.

PCQ527 Instructional Approaches in Computer Applications

The computer applications syllabus as prescribed in the Normal (Technical) course and the planning of lessons. Aims of computer education for schools, the rationale and objectives of the syllabus, conceptual framework, organisation and sequencing, nature and principles of computing, lesson plan and preparation.

The various instructional approaches appropriate for the teaching of computing, such as exposition, investigation, discussion, problem solving, hands-on activities and cooperative groupwork. The opportunity to practise teaching skills during micro-teaching sessions.

The Teaching of Computing

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCQ511	Computing Curriculum	Core	1	-
PCQ512	Teaching and Learning of Computing	Core	2	-
PCQ513	Topics in Computing	Core	2	-
PCQ514	Assessment and Project Work in Computing	Core	1	-
PCQ515	Practice in the Teaching of Computing	Core	1	-
Select 1				
PCQ551	Research in Computer-assisted Instruction and Computer Education	Prescribed	1	-
PCQ552	Computer Laboratories and Resources	Prescribed	1	-

PCQ511 Computing Curriculum

Curriculum, aims and objectives of computer education in general and computing in particular, nature and principles of computing and basics in lesson planning.

PCQ512 Teaching and Learning of Computing

Teaching approaches especially those appropriate for teaching in junior colleges: exposition, lecture, tutorial, investigation, discussion, problem solving and project work. Classroom organisation for pupil-centred individual activities and groupwork. Learning theories and their applications to the teaching of computing in the classroom. Individual topics in the syllabus as examples for illustration and analysis of errors and pupils' misconceptions.

PCQ513 Topics in Computing

The teaching of various topics in the syllabus with reference to their significance, development and key concepts, teaching strategies, learning difficulties and common misconceptions, instructional materials, enrichment activities, and applications. Six broad areas: (a) applications of computers and their social and economic implications; (b) systems analysis and design; (c) problem formulation and solution; (d) structure and representation of data; (e) algorithm design and programming concepts; and (f) system software and architecture.

PCQ514 Assessment and Project Work in Computing

Design, construction and analysis of tests; evaluation of pupils' progress for diagnosis, remediation and enrichment; examinations and computer projects and their requirements and standard of performance expected of pupils in completing the 'A' level syllabus.

PCQ515 Practice in the Teaching of Computing

Practice of teaching skills during micro-teaching sessions. Feedback and suggestions from fellow students and tutor to improve teaching skills such as communication, explanation, questioning, providing feedback and use of instructional materials.

PCQ551 Research in Computer-assisted Instruction and Computer Education

Use of computer-assisted instruction in teaching and learning, pupils' attitudes towards computers, research studies and projects in computing and computer education.

PCQ552 Computer Laboratories and Resources

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.

The Teaching of Design and Technology

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCN511	Teaching and Evaluating the Problem Solving Process	Core	3	-
PCN512	Materials Processing	Core	3	-
PCN513	Managing and Teaching the Design and Technology Curriculum	Core	2	-

PCN511 Teaching and Evaluating the Problem Solving Process

Strategies to teach problem solving in the Design and Technology curriculum. Introduction to the teaching of graphic communication skills. Product research, creative and critical thinking skills, anthropometry and ergonomics, modelling and computer-aided design. Experience in coming to grips with self-identified problem and the production of a folio. Hands-on experience in the evaluation of folios and artefacts according to prescribed marking scheme. A simulated environment to analyse and evaluate trainee teachers' own teaching efforts through peer teaching sessions with special emphasis on introductory procedures and closures, questioning skills and practical workshop demonstrations. Encouragement will be given towards solutions of problems that have elements of National Education in them.

PCN512 Materials Processing

Correct and safe work habits and selection of the appropriate technique in the use of materials as expected of all Design and Technology teachers. Hands-on experience, which includes an integration of design and multi-material approach to project work to enable student teachers to provide advice on solutions to design problems. Properties and working characteristics of materials, processes involving setting and marking out, shaping by wasting and forming, methods of joining, surface finishing and heat treatment, safe and correct usage and maintenance of basic hand tools. The production of simple electronic devices. Hands-on experience in the use of common basic machines used in secondary schools. The safe operations of the basic machines through the different stages of mini projects. Use of powered hand tools and simple computer assisted machining tools. As far as possible, elements of National Education will be incorporated in the designs of the finished artefacts.

PCN513 Managing and Teaching the Design and Technology Curriculum

The Design and Technology syllabus for 'O' level in relation to its philosophy, implementation and evaluation. An in-depth analysis of the curriculum in conjunction with the development of a scheme of work. Aspects on workshop organisation and management, resource and facilities planning and safe practices in the workshop. An integrated approach to the teaching of the common processes involving wood, metal, and plastics - their characteristics and workability. The selection of appropriate materials and processes in the development of artefacts. The effective integration of 'technology' into the curriculum. National Education issues on the change to Design and Technology instead of teaching the crafts are incorporated.

The Teaching of Economics

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCO511	Basic Approaches to Teaching A-level Economics	Core	5	-
PCO512	Further Instructional Approaches and Assessment of A-level Economics	Core	3	-

PCO511 Basic Approaches to Teaching A-level Economics

Introduction to the A-level Economics curriculum and basic strategies for teaching the subject in the Singapore junior college. Discussion of curriculum aims and examination requirements. Selection of content and planning of units and lessons. Organising pupils for learning in large and small groups. Techniques of explaining economic concepts and principles and the applications that can be made with case studies and economic data.

PCO512 Further Instructional Approaches and Assessment of A-level Economics

Classroom-based approaches and inquiry-based activities for the development of selected thinking skills and application of IT. The approaches include critical thinking, decision-making, inquiry learning and the use of WinEcon courseware and economic resources that may be found on the internet. Modes of assessment designed to test various forms and levels of economic understanding.

The Teaching of Elements of Office Administration

Module Code	Title	Module Category	No. of AUs	Pre-requisites
POA511	Teaching Office Administration to 'N' Pupils	Core	5	-
POA513	Teaching Computing in Office Administration	Core	3	-

POA511 Teaching Office Administration to 'N' Pupils

Introduction of some basic office administration concepts and skills essential to operate effectively in the work environment. Functions of the office, office communications, document storage and retrieval, mail handling, receipts and payments and stationery control. A variety of classroom methods relevant to the teaching and learning of Elements of Office Administration (EOA) for the Normal pupils. Different methods of assessment for EOA.

POA513 Teaching Computing in Office Administration

Various approaches and strategies appropriate to the teaching of computing to EOA pupils. Focus on strategies and techniques that are specially catered to the teaching of computing to the less academically inclined pupils which include classroom management in the computer laboratory. Various subject topics like the nature and principles of computing; key developments and applications of word-processing, spreadsheet and computer graphics in the office. Hands-on practice on computers as well as micro-teaching sessions to develop skills in teaching computing to EOA pupils.

The Teaching of English Language

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCE511	Language Teaching Approaches	Core	6	-
PCE512*	Language Study (Grammar)	Core	2	-
PCE513	English Language: Teaching Issues In Singapore Secondary Schools	Core	2	-

* For those who have no background in language studies at undergraduate level

PCE511 Language Teaching Approaches

Listening, speaking, reading and writing processes. Insights into present classroom teaching approaches. Grammar and vocabulary learning problems. A range of methods to develop language proficiency. Ways of adapting textbooks, selecting and exploiting materials, devising tasks and activities to maximise pupil learning and participation. Practical unit and lesson planning for actual teaching sessions with groups of remedial pupils in Singapore secondary schools. The development of trainee teachers' ability to reflect upon and adapt their teaching approaches to suit learner needs.

PCE512 Language Study (Grammar)

Understanding the language requirements of the Singapore secondary school syllabus. How to analyse, evaluate and remedy problems in pupil work more effectively.

PCE513 English Language: Teaching Issues in Singapore Secondary Schools

Consolidation of trainee teachers' knowledge and perceptions of language teaching in a range of school contexts (building on PCE511).

The Teaching of English Literature

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCR511	Teaching Literature: Aims and Approaches	Core	6	-
PCR512	Writing about Literature and Literature Assessment	Core	2	-
PCR 513*	Approaches to Literature	Core	2	-

*For those who have no background in language at undergraduate level

PCR511 Teaching Literature: Aims and Approaches

The aims of literature teaching, specific objectives in the classroom, the literature teaching situation in respect of the local context, prescribed texts and syllabuses, and general methodology. Considerations of official directives including National Education and IT initiatives in literature teaching. Techniques for teaching the short story, novel, drama and poetry for literary development and creative and critical thinking. Micro-teaching to help improve student skills before teaching practice.

PCR512 Writing about Literature and Literature Assessment

Developing and linking writing tasks for literature appreciation and criticism. Examining the connection between teaching and assessment goals by looking at the principles and practice of literature assessment at the secondary and junior college levels. Applying these principles to the setting and critiquing of literature tests.

PCR513 Approaches to Literature

Introduction to literary analysis of texts in the three major literary forms – narrative, poetry and drama.

Elements of textual analysis and literary terminology will be emphasised.

The Teaching of Geography

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCG511	Approaches to the Teaching and Assessment of Geography	Core	4	-
PCG512	Resources in Geography Teaching	Core	2	-
PCG514	Teaching Social Studies to Secondary Students	Core	2	-

PCG511 Approaches to the Teaching and Assessment of Geography

An introduction to different modes of teaching geography ranging from expository teaching to the use of poetry, songs, drama and information technology in classrooms and field. The teaching of creative thinking and national education in the Geography syllabus. The design of different modes of assessment to evaluate learning outcomes.

PCG512 Resources in Geography Teaching

The wide range of resources such as maps, models, photographs and computer software and courseware that might be used to enhance the teaching and learning of geography.

PCG514 Teaching Social Studies to Secondary Students

(For trainee teachers taking History and Geography as Curriculum Studies subject)

The variety of classroom methods relevant to the teaching and learning of social studies at the secondary level, including the use of information technology, critical thinking skills, and national education. Different methods of assessment in social studies. The module covers the social studies syllabus for normal technical students and the new Combined Humanities subject.

The Teaching of Lower Secondary Geography

This subject is offered to student teachers who did not study Geography at university level but who possess at least grade 'B' in Geography at 'A' level. These trainee teachers would offer a content module PCG521 in addition to pedagogical modules PCG511 to PCG514 offered by other PGDE(Secondary) students with Geography at university level.

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCG511	Approaches to the Teaching and Assessment of Geography	Core	4	-
PCG512	Resources in Geography Teaching	Core	2	-
PCG514	Teaching Social Studies to Secondary Students	Core	2	-
PCG521	Introduction to Geography	Core	2	-

PCG511 Approaches to the Teaching and Assessment of Geography

An introduction to different modes of teaching geography ranging from expository teaching to the use of poetry, songs, drama and information technology in classrooms and field. The teaching of creative thinking and national education in the Geography syllabus. The design of different modes of assessment to evaluate learning outcomes.

PCG512 Resources in Geography Teaching

The wide range of resources such as maps, models, photographs and computer software and courseware that might be used to enhance the teaching and learning of geography.

PCG514 Teaching Social Studies to Secondary Students

(For trainee teachers taking History and Geography as Curriculum Studies subject)

The variety of classroom methods relevant to the teaching and learning of social studies at the secondary level, including the use of information technology, critical thinking skills, and national education. Different methods of assessment in social studies. The module covers the social studies syllabus for normal technical students and the new Combined Humanities subject.

PCG521 Introduction to Geography

Three components of geography – physical geography, human geography and techniques. Knowledge of the lithosphere, biosphere and atmosphere and environmental problems in physical geography, spatial organisation of society and human activities in human geography. Techniques of map analysis and interpretation.

Guidance and Counselling

This subject is offered in lieu of a teaching subject.

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCW511	Introduction to Pastoral Care and Career Guidance	Core	2	-
PCW512	Basic Skills in Pastoral Groupwork	Core	2	-
PCW513	Basic Skills in Pastoral Casework	Core	2	-
PCW514	Career Guidance in Schools	Core	2	-

PCW511 Introduction to Pastoral Care and Career Guidance

The concept of Pastoral Care and Career Guidance in schools, with emphasis on the whole-school approach. The developmental guidance skills necessary to create a conducive learning environment in the school, to foster interaction and communication in the classroom, to enhance the self esteem of pupils and foster their personal and social development.

PCW512 Basic Skills in Pastoral Groupwork

The group guidance aspect of Pastoral Care and Career Guidance. An overview of group processes and group theories, techniques in group guidance, decision-making, problem-solving and conflict-resolution in groups, and hands-on activities to develop group guidance skills.

PCW513 Basic Skills in Pastoral Casework

The necessary knowledge and counselling skills to identify and help pupils with learning difficulties and personal problems. An overview of cognitive, affective and behavioural theories in counselling, their related approaches and intervention strategies with special reference to stress management and the handling of behavioural problems in schools.

PCW514 Career Guidance in Schools

The importance of bridging the gap between the school and the world of work through the planning and implementation of a suitable career guidance programme in schools. Theories in career development, the role of the school in providing career guidance, approaches and techniques in career guidance and issues in career guidance.

The Teaching of History

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCH511	Teaching History in the Classroom	Core	4	-
PCH512	Teaching History Through Fieldtrips	Core	2	-
PCH514	Teaching Social Studies to Secondary Students	Core	2	-

PCH511 Teaching History in the Classroom

Objectives of the history syllabi at various levels, linkage to National Education, lesson planning, historical skills and concepts, interpretation of sources, the application of information technology in history setting and marking questions. Emphasis is placed on the development of thinking skills and creativity.

PCH512 Teaching History Through Fieldtrips

The rationale and objectives of planning and organising fieldtrips to selected historical sites in Singapore, such as Kranji War Memorial and Kampong Glam. Linkage of Singapore's heritage to National Education.

PCH514 Teaching Social Studies to Secondary Students

(For trainee teachers taking History and Geography as Curriculum Studies subject)

The variety of classroom methods relevant to the teaching and learning of social studies at the secondary level, including the use of information technology, critical thinking skills, and national education. Different methods of assessment in social studies. The module covers the social studies syllabus for normal technical students and the new Combined Humanities subject.

The Teaching of Lower Secondary History

This subject is offered to trainee teachers who did not study History at university level but who possess at least grade 'B' in History at 'A' level. These trainee teachers would offer a content module PCH521 in addition to pedagogical modules PCH511 to PCH514 offered by other PGDE(Secondary) trainee teachers with History at university level.

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCH511	Teaching History in the Classroom	Core	4	-
PCH512	Teaching History Through Fieldtrips	Core	2	-
PCH514	Teaching Social Studies to Secondary Students	Core	2	-
PCH521	Teaching of Lower Secondary History Content	Core	2	-

PCH511 Teaching History in the Classroom

Objectives of the history syllabi at various levels, linkage to National Education, lesson planning, historical skills and concepts, interpretation of sources, the application of information technology in history setting and marking questions. Emphasis is placed on the development of thinking skills and creativity.

PCH512 Teaching History Through Fieldtrips

The rationale and objectives of planning and organising fieldtrips to selected historical sites in Singapore, such as Kranji War Memorial and Kampong Glam. Linkage of Singapore's heritage to National Education.

PCH514 Teaching Social Studies to Secondary Students

(For trainee teachers taking History and Geography as Curriculum Studies subject)

The variety of classroom methods relevant to the teaching and learning of social studies at the secondary level, including the use of information technology, critical thinking skills, and national education. Different methods of assessment in social studies. The module covers the social studies syllabus for normal technical students and the new Combined Humanities subject.

PCH521 Teaching of Lower Secondary History Content

The significant achievements of Southeast Asian, Indian and Chinese civilisations: the rise and growth of maritime kingdoms in Southeast Asia, the Indus Valley civilisation, the Mauryan and Gupta periods in India, the Shang civilisation in China, and the achievements of the Chin, Han and Tang dynasties. The social, economic and political history of Singapore from 1819 to 1965: the story of Temasek in the 14th century and the founding of modern Singapore in 1819, the social and economic development of the British colony in the 19th and early 20th centuries, the Japanese invasion and occupation of Singapore, the postwar economic and social reconstruction and the political events leading to the creation of an independent city-state in August 1965.

The Teaching of Home Economics

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCX511	Home Economics Curriculum and Evaluation	Core	2	-
PCX512	The Teaching of Food and Nutrition	Core	2	-
PCX513	The Teaching of Clothing and Textiles	Core	2	-
PCX514	The Teaching of Family and Consumer Education	Core	2	-

PCX511 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; the use of appropriate evaluation procedures in facilitating effective learning.

PCX512 The Teaching of Food and Nutrition

The Food and Nutrition syllabus at the secondary level; strategies and methods to teach basic principles of food preparation; organisation of investigative and practical work, and safety in the food laboratory.

PCX513 The Teaching of Clothing and Textiles

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, choice, use and care of equipment, and skills in clothing construction.

PCX514 The Teaching of Family and Consumer Education

Various approaches to the teaching of 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.

The Teaching of Malay Language

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCD510	Teaching of Malay Language 1	Core	5	-
PCD511	Teaching of Malay Language 2	Core	3	-

PCD510 Teaching of Malay Language 1

A theoretical and practical understanding of the Malay Language curriculum in secondary school: its contents, development and implementation, and the design, selection and integration of appropriate media and materials in the teaching of the language at secondary level. The various approaches and methods to language acquisition and learning. The reading process, developing skills in reading. Understanding of the writing process, the various types of writing, the levels of writing skills and the evaluation of writing skills. Oral and speaking skills. The teaching of listening and speaking.

PCD511 Teaching of Malay Language 2

The process of vocabulary acquisition and development, teaching and learning strategies including the teaching of Malay proverbs. The use of computer and IT-based materials in the teaching of Malay language. Testing, the construction and administration of test items, item review and analysis, discrete item test and integrative tests, and developing Malay language test and materials for the secondary level.

The Teaching of Malay Literature

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCJ513	Teaching of Malay Literature 1	Core	6	-
PCJ514	Teaching of Malay Literature 2	Core	2	-

PCJ513 Teaching of Malay Literature 1

The aims and objectives of teaching literature and the place of literature in curriculum. An overview of 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.

PCJ514 Teaching of Malay Literature 2

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 the teaching of selected classical genres and texts. Appreciation, evaluation and testing of traditional Malay literature.

The Teaching of Mathematics

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCM513	Teaching and Learning of Mathematics I	Core	6	-
PCM514	Teaching and Learning of Mathematics II	Core	2	-

PCM513 Teaching and Learning of Mathematics I

Aims and objectives of mathematics education, Mathematics curriculum in Singapore, concept formation and learning theories in mathematics, teaching approaches and classroom organisation, lesson planning, mathematics communication and metacognition, mathematical thinking and problem solving, technology in mathematics education. Teaching and learning of mathematics topics: Arithmetic, Mensuration and Geometry, Functions and Graphs, Statistics, Algebra, Trigonometry, Calculus, Probability, Sets, Matrices, Vectors, and Mechanics. Understanding of concepts in the topics, curriculum structure, learning difficulties, teaching approaches, motivation techniques for each of the topics will be dealt with. Hands-on sessions on the use of IT to teach mathematics.

PCM514 Teaching and Learning of Mathematics II

Assessment in mathematics, test construction and marking. Project work and enrichment in mathematics at the secondary level. Classroom presentations of teaching ideas or practice of teaching skills, which will be critiqued by the tutor and fellow trainee teachers.

The Teaching of Lower Secondary Mathematics

This subject is offered to trainee teachers who did not study Mathematics at university level but who possess at least grade 'B' in Mathematics C or Further Mathematics at 'A' level.

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCM521	Principles and Practice of Teaching Lower Secondary Mathematics I	Core	6	-
PCM522	Principles and Practice of Teaching Lower Secondary Mathematics II	Core	2	-

PCM521 Principles and Practice of Teaching Lower Secondary Mathematics I

Aims and objectives of mathematics education, Mathematics curriculum in Singapore, concept formation and learning theories in mathematics, teaching approaches and classroom organisation, unit and lesson planning, mathematics communication and metacognition, mathematical thinking and problem solving, and technology in mathematics education. Teaching and learning of the following mathematics topics (including understanding of concepts within and related to the topics, curriculum structure, learning difficulties, teaching approaches and motivation techniques): Arithmetic, Mensuration and Geometry, Trigonometry, Algebra, Statistics, Functions and Graphs. Hands-on sessions on the use of IT to teach mathematics.

PCM522 Principles and Practice of Teaching Lower Secondary Mathematics II

Assessment in mathematics, test construction and marking. Project work and enrichment in lower secondary mathematics. Classroom presentations of teaching ideas or practice of teaching skills which will be critiqued by the tutors and peers.

The Teaching of Music

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCI511	Principles and Foundations of Music Education	Core	5	-
PCI512	Making Music in the Secondary Classroom	Core	3	-

PCI511 Principles and Foundations of Music Education

Overview of fundamental issues in contemporary music education and classroom practice, the aims and objectives of general music curriculum and syllabus for the music elective programme in Singapore. Examine and evaluate the psychological theories and pedagogical principles about the teaching and learning of music and the role of technology, ethnic music, and sociological issues in music education.

PCI512 Making Music in the Secondary Classroom

The repertoire of materials available for classroom use at secondary level. Methodologies to deliver a modern singing and instrumental curriculum; the ways in which classroom listening and composing activities are employed to promote music education through the acquisition of skills and involvement in a variety of musical experiences. Issues in the planning and evaluation of lessons.

The Teaching of Physics

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCP511	Teaching of Physics I	Core	2	-
PCP512	Teaching of Physics II	Core	4	-
PCP513	Teaching of Physics III	Core	2	-

PCP511 Teaching of Physics I

An understanding of school pupils: 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. Dealing with critical incidents. Lectures on showmanship, creativity, thinking, inquiry, telling and explaining.

PCP512 Teaching of Physics II

Comparing the present Physics curriculum with Physics curricula developed and implemented in other countries. The planning of physics lessons for maximum impact, the syllabus, curriculum materials and teaching strategies for pupils of different abilities. Remedial and enrichment programmes; research-based findings concerning alternative conceptions, difficulties and problems in various physics topics. Various approaches that facilitate the teaching, learning of physics: discover-inquiry learning, learning cycle, use of worksheets and discussions, individualised instruction, computer-assisted learning and classroom demonstrations. Infusion of the three initiatives namely, IT, Thinking skills

and National Education into the teaching of physics.

PCP513 Teaching of Physics III

Two important areas of Physics teaching, that of resource management and evaluation. Resources available to the classroom teacher, both within and outside the school. Safety in science laboratories, the role of practical work and its importance as an integral aspect of physics education. Evaluation and feedback on teaching efforts. Lectures on the setting, marking and analysing of examination papers for feedback to pupils.

The Teaching of Tamil Language

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCT511	Teaching of Tamil Language 1	Core	5	-
PCT512	Teaching of Tamil Language 2	Core	3	-

PCT511 Teaching of Tamil Language 1

The curriculum and methodology of teaching Tamil Language in secondary schools. The four language skills namely listening, speaking, reading and writing at the secondary level. The objectives, content and various approaches to teaching and testing the four skills. Integration of thinking skills in teaching of the above four skills. Use of IT in teaching of Tamil Language.

PCT512 Teaching of Tamil Language 2

Two parts: the teaching of vocabulary and grammar, and language testing. The teaching of grammar and vocabulary at secondary level. A study of the functional aspects of Tamil grammar and various methods of teaching Tamil grammar and vocabulary. The principles of testing in Tamil language, definition and types of language tests, objectives of language testing, the principles of planning a language test and evaluation of performance in a test paper. High and low order thinking skills in testing.

The Teaching of Tamil Literature

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCJ515	Teaching of Tamil Literature 1	Core	5	-
PCJ516	Teaching of Tamil Literature 2	Core	3	-

PCJ515 Teaching of Tamil Literature 1

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 Poetry and their importance in teaching of Tamil language at secondary level.

PCJ516 Teaching of Tamil Literature 2

The teaching of Tamil language through the study of novels, short stories and essays. Various kinds of Tamil short stories and novels and the techniques used by writers. Various aspects of National Education in Tamil fiction and their importance in teaching of Tamil language at secondary level.

PRACTICUM

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PPR511 ❖	Practicum	Core	0	-

- ❖ Although the Practicum carries zero AUs, a trainee teacher must pass the Practicum before he/she can be awarded the PGDE.

PPR511 Practicum

The Practicum is a very important part of the PGDE (Secondary) programme. Its principal function is to provide the trainee teachers with the opportunity to use knowledge and skills introduced in the Education Studies and Curriculum Studies courses and attempt to integrate theory into practice, and to develop teaching competencies in a variety of instructional contexts, and at different levels through close developmental supervision. They will learn from experienced cooperating teachers about the schooling process, and prepare themselves for their roles and responsibilities in teaching.

The Practicum is spread throughout the entire course of study. For the first semester, the trainee teachers will enjoy some school experience in secondary classes so that they can observe at first hand how teachers teach and students learn. During the second semester, trainee teachers will be sent out to schools for their teaching practice. They will be given the opportunity to teach their subjects of specialisation to students of different abilities at the upper and lower secondary levels.

LANGUAGE ENRICHMENT AND ACADEMIC DISCOURSE SKILLS

Trainee teachers doing Teaching of Chinese Language will do PCU514/5. Trainee teachers doing Teaching of Malay Language will do PCU516/7 while trainee teachers doing Teaching of Tamil Language will do PCU518/9.

Module Code	Title	Module Category	No. of AUs	Pre-requisites
PCU511 ☒	Use of English in Teaching	Core	0	-
PCU514	Use of Chinese in Teaching 1	Core	1	-
PCU515	Use of Chinese in Teaching 2	Core	1	-
PCU516	Use of Malay in Teaching 1	Core	1	-
PCU517	Use of Malay in Teaching 2	Core	1	-
PCU518	Use of Tamil in Teaching 1	Core	1	-
PCU519	Use of Tamil in Teaching 2	Core	1	-

☒ This module is offered on a Pass/Fail basis. A Pass is required in order to fulfil programme requirements.

Use of English in Teaching

PCU511 Use of English in Teaching

An oral communication course designed to improve the ability of trainee teachers to be more effective as communicators in the classroom. Various aspects of language communication commonly employed in the classroom and the modalities used to effect such communication. Aspects of speech, voice projection and modulation, effective techniques of reading text aloud, oral presentations and various modes of classroom talk.

Use of Chinese in Teaching

PCU514 Use of Chinese in Teaching 1

Development of the oral communication skills of student teachers. Three main sections: Phonetics, Speech Skills and Effective Classroom Communication. Errors in Mandarin pronunciation with regard to vowels and consonants, the four tones and the change of tone with specific words.

PCU515 Use of Chinese in Teaching 2

How to be more effective in the use of Mandarin for the teaching of Chinese. Practical knowledge and skills in Hanyu Pinyin, accurate pronunciation and standard Mandarin. The application of speech skills in the classroom situation.

Use of Malay in Teaching

PCU516 Use of Malay in Teaching 1

Development of communicative proficiency in the use of Malay in secondary school. 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, debating skills.

PCU517 Use of Malay in Teaching 2

Greater exposure and practice for trainee teachers to develop their proficiency and confidence as Malay language teachers in secondary school. Literacy in Jawi will be included.

Use of Tamil in Teaching

PCU518 Use of Tamil in Teaching 1

Development of oral proficiency in Tamil language. Phonetics and mastery in pronunciation and other communication skills within the classroom.

PCU519 Use of Tamil in Teaching 2

Written communication skills. Common errors in writing and with Tamil syntax.