



An Institute of



**NANYANG
TECHNOLOGICAL
UNIVERSITY**
SINGAPORE

PROFESSIONAL LEARNING CATALOGUE

AUGUST TO DECEMBER 2020

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The National Institute of Education (NIE), Nanyang Technological University, Singapore believes in lifelong learning. In alignment with NIE's mission to excel in Teacher Education, the range of professional development programmes and courses offered by NIE to meet the needs of our various stakeholders is instrumental in enabling the fulfilment of this mission. In addition, one main feature of NIE's Teacher Education Model of the 21st Century is the consideration of teachers' needs on an enhanced pathway of professional development. We believe our professional learning programmes for teachers are instrumental in meeting teachers' aspirations.

Our programmes are tailored to the learning needs of school teachers as well as educators and professionals working in various educational settings. In particular, we have six focus areas in our programmes and courses to:

- 1 UPGRADE** content knowledge of teachers;
- 2 UPDATE** teachers with pedagogical innovation in subject teaching;
- 3 EQUIP** teachers with new competencies in response to societal needs and demands;
- 4 KEEP** teachers abreast of new developments and initiatives in education;
- 5 EDUCATE** teachers with research and management skills;
- 6 ENHANCE** their teaching effectiveness through life-long learning.

These areas of focus will enable our teachers to advance and master the set of teacher competencies they have attained since their graduation from their initial teacher preparation programmes. In addition, these programmes are also designed with the Ministry of Education's Teacher Growth Model (TGM) in mind, providing learning opportunities for the ethical educator, the competent professional, the collaborative learner, the transformational leader and the community builder. We continue to provide quality teaching and learning to enable our teachers in their learning journeys through three key modes of professional learning.

CERTIFICATION PROGRAMMES

NIE offers a suite of Certificates, Diplomas and Advanced Diplomas that caters to the range of professional needs of Singapore educators. These structured programmes are grounded in continuing life-long learning principles to meet the career needs of practising teachers and educational professionals in a changing education sector.

STAND-ALONE PROFESSIONAL LEARNING COURSES

Apart from certificate programmes, NIE offers two categories of stand-alone professional learning courses. One category would be the generic in-service courses designed in response to contemporary policy, curriculum and pedagogy that are relevant to teachers' aspirations and the mission of the Ministry of Education (MOE). Another category is the in-service course taught at a graduate level that provides learning experiences to teachers. This is done on a 'modular' basis to enable them to learn at their own pace, without first having to register for a Master's programme. This enables teachers to accumulate academic credits for consideration of admission to higher certification programmes.

CUSTOMISED WORKSHOPS

In addressing the needs of our stakeholders, NIE often responds to requests from educators to run customised workshops. In order to provide to prospective educators who require customised training, we have included a section on the areas of learning for customised school-based workshop in this catalogue.

In short, NIE is committed to providing relevant, responsive, rigour-tested, practice-proven, evidence-informed and technology-mediated knowledge solutions and innovations in educational policy, process and practice to meet organisations' and individuals' professional needs.



CERTIFICATES AND DIPLOMAS

Certificate in Differentiating Curriculum and Instruction for High Ability Learners

This certificate programme seeks to provide teachers from independent schools as well as those working in various educational settings with further professional development opportunities to enhance their knowledge and skills in meeting the needs of learners who have been identified as high ability learners (HAL). This programme is targeted at a wide range of educators, from those working in the early childhood sector, to those in institutions of higher learning, to facilitate and develop a continuum of educational support for HALs.

Certificate in Foundational English Language Subject Content Knowledge for Teachers

This certificate programme seeks to provide participants with an understanding of key concepts and theories within the fields of English Language Studies and English Language Teaching that will equip them to implement the MOE English Language syllabus more effectively.

Certificate in Primary Mathematics Education

This certificate programme aims to prepare the teachers for specializing in primary mathematics teaching at the upper primary level, with emphasis on the topics that are taught in the primary mathematics curriculum. Each course will also examine the related assessment practices based on the subject matter knowledge of the topic.

Certificate in Teaching Students with Autism in Special Education School

This certificate programme will focus on enhancing the capacities, skills and practices of the teachers teaching students with autism. It aims to provide knowledge of autism and developmental trajectory of individuals with autism through their lifespan, to equip the teachers in the SPED schools with the pedagogical knowledge and skills in teaching students with autism and to apply new knowledge of evidence-based practices through their implementation and evaluation to identify learning and behavioural concerns.

Diploma in Physical Education (In-service)

This Diploma programme seeks to develop professional competence and expertise in teaching Physical Education as a major subject. It seeks to enable teachers to follow an academic and knowledge-based approach to the subject area of Physical Education. The programme aims to give teachers a grasp of the physical, psychological, sociological and philosophical principles essential to an understanding of the physical education teaching process.

Certificate in Educational Assessment

This certificate programme seeks to provide participants with a strong grounding in both the theories and methods of assessment in order that they can conceptualise and review assessment practices.

Certificate in Educational Support

This certificate programme aims to deepen the professional knowledge and skills of participants in relation to (a) supporting the specific socio-emotional needs of the low progress learners, and (b) supporting the specific learning needs of the low progress learners. It is designed to meet the key learning areas in the Professional Development Roadmap for Secondary School Teachers - Teaching Low Progress Learners, namely: "characteristics of low progress learners and social-emotional learning/TSR strategies", "motivation and education and career guidance" and "pedagogical practices".

Certificate in Primary Science Education

This certificate programme aims to equip teachers with knowledge and understanding of biological and physical science topics, and how the topics are connected to each other. In addition, the courses will equip teachers with the knowledge and skills in planning and implementing holistic assessment in primary science.

Certificate in Special Needs Support

This certificate programme serves to provide mainstream teachers in the primary and secondary schools with more in-depth knowledge, skills and understanding of the special needs of diverse learners, and foster the development of teacher education.

Certificate in Teaching Students with Hearing Loss

This certificate programme will allow teachers to have greater knowledge of the impact of hearing loss on learning and the approaches in supporting these students in the classroom. The landscape in the education for students with hearing loss has changed with a new initiative of including students who use sign language in the mainstream schools. To level up the skills and knowledge of the teachers in mainstream and special education schools, we recognise the need to provide opportunities for teachers to deepen their knowledge and teaching pedagogy.



ADVANCED DIPLOMAS

Advanced Diploma in Primary Art Education

This programme provides teachers with a framework of knowledge and skills in art. It also provides perspectives on the change and development of theories and trends in art and art education for teachers to reflect, re-examine and to draw inferences about their classroom practices. Lastly, it enables teachers to develop competencies in the evaluation and planning of effective art curriculum and programme in their schools.

Advanced Diploma in Primary Mathematics Education

This programme provides teachers with a framework of knowledge and skills in the teaching of primary mathematics. It also provides perspectives on the change and development in primary mathematics curriculum for teachers to reflect, re-examine and refine their classroom practices. Lastly, it enables teachers to develop competencies in the design and practice of assessment and evaluation.

Advanced Diploma in Primary Science Education

This programme provides teachers with a framework of knowledge and skills in the teaching of primary science. It also provides perspectives on the changes and developments in the primary science curriculum for teachers to reflect, re-examine and refine their classroom practices. Lastly, it enables teachers to develop competencies in the design and practice of assessment and evaluation.

Advanced Diploma in Teaching Early Primary School Years

Closely coordinated with various MOE initiatives, this programme seeks to develop professional competence and expertise in teaching lower primary children. It will help teachers understand how children learn and develop; and thus create a learning environment that keeps children safe as well as support engaging activities that promote quality learning. Teachers will develop effective and age-appropriate strategies to promote children's learning; understand goals, benefits and uses of systematic observations and varied forms of assessment to impact the development of children. They will learn to understand strategies of family and community engagement to promote positive learning outcomes for children, deepen their understanding of how children's language skills and numeracy develop in the lower primary and develop engaging teaching and learning activities to foster these skills. Lastly, they will broaden their leadership potential and expand their professional confidence and impact as teacher leaders.

Advanced Diploma in Primary English Language Education

This programme provides teachers with a framework of knowledge and skills in teaching primary English language. It also provides perspectives on the change and development in the primary English language curriculum for teachers to reflect, re-examine, and refine their classroom practices. Lastly, it enables teachers to develop competencies in the design and practice of assessment and evaluation.

Advanced Diploma in Primary Music Education

This programme provides teachers with a framework of knowledge and skills in music. It apprises music teachers of the current thinking and practice in music and music education, and provides opportunities for teachers to reflect on and re-examine their classroom practices. Lastly, it enables teachers to develop competencies in the evaluation and planning of effective music curricula and programmes in their own schools.

Advanced Diploma in Special Learning and Behavioural Needs

This programme provides a framework of knowledge and skills and inculcates attitudes which are important to the education of students with special needs. It also examines the range of factors that facilitates or hinders the learning of a student with special needs in mainstream schools; thus enabling teachers to develop competencies in assessing, planning, implementing, and evaluating programmes for students with special needs. Lastly, the programme provides teachers with the basic knowledge and skills for supporting students with various types of disabilities.

Advanced Diploma in Special Education

This programme focuses on enhancing the capacities, skills and practices of the Allied Educators (Learning and Behavioural Support) and Special School Teachers using a "reflective-practitioner" and "learning-based" approach to develop appropriate classroom-based and school-level support for pupils with special needs in mainstream or special schools.

Advanced Diploma in Teaching

The purpose of this Advanced Diploma in Teaching is to offer the opportunity to customize your own learning, based on your instructional needs and interests in different schools; and across at least two subject areas within the primary school curriculum. It also offers a greater scope of elective courses otherwise unavailable within disciplinary Advanced Diplomas.



MAPPING TO THE TEACHERS' GROWTH MODEL

Our courses are mapped to the Teachers' Growth Model's learning dimensions. You will find the respective learning dimensions number right below the course titles together with the OPAL code, where applicable.



STAND-ALONE PROFESSIONAL LEARNING COURSES



NIE has curated a suite of professional learning courses to support the continual development of educators and professionals working in education. To register for our courses, please visit <https://place.nie.edu.sg/> or write in to us at inservice@nie.edu.sg. MOE officers can register through OPAL.



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ICT0512 Towards Better Tests & Teaching– Item Analysis in Achievement Tests

Item analysis is a set of statistical methods used for evaluating the statistical quality of test items. It is widely used in the testing industry to improve item quality and develop more reliable and valid tests. In this course we will focus on item analysis in achievement tests (e.g. tests and exams in schools of developed skill or knowledge). This is a hands-on skill development workshop conducted in the computer lab. To maximize the learning experience, participants are encouraged to bring their own data set for analysis.

Duration:

12 hours

Dates:

3 and 4 November 2020

Time:

9.30am to 4.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Associate Professor Chen Wenli

Target audience:

All educators

Learning Dimension:

3

Registration:**OPAL**

(Code: 73121)



ICT0320 Assessment Literacy 2.4: Effective Questioning & Feedback as AfL Strategies

The course is designed to build teachers' capacity in the areas of questioning and feedback, two important assessment for learning (AfL) strategies. Using research-informed best practices, participants explore and apply questioning and feedback within authentic contexts. While focusing on enhancing teachers' use of AfL strategies, the course examines how participants may plan the conditions for ideal questioning and feedback practices. Through discussion, hands-on and reflective activities, participants will enhance their knowledge and skills in using Q&F strategies to support and evaluate teaching and learning. AfL practices and understandings will be set within the context of MOE Assessment Philosophy and assessment competencies.

Duration:

10 hours

Dates:

18 September & 5 October 2020

Time:

9.00am - 5.00pm (Day 1)

2.30pm – 5.30pm (Day 2)

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$108.00

Non-MOE participants - \$589.50

Trainer:

Dr Goh Swee Peng Rachel

Target audience:

All educators

Learning Dimension:

3

Registration:
OPAL

(Code: 72245)

ICT0328 Evidence-based Assessment for Learning

Assessment begins with clarity of purpose and gathers evidence to inform future practices. The quality of the evidence is only as good as the assessment design. What shapes quality assessment design? How to use assessment results formatively? These questions which connect assessment design to the intended use of evidence for the action part of learning will be discussed. Principled approaches to interpret and use evidence to advance learning will be introduced. Participants will be able to make evidence-based decisions in knowing where learning is headed, where it is now, and what to do next to progress learning.

Duration:

11 hours (1 hour e-learning)

Dates:

3 and 28 August 2020

Time:

9.00am - 5.00pm (Day 1)

2.30pm – 5.30pm (Day 2)

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$118.70

Non-MOE participants - \$648.35

Trainer:

Dr Goh Swee Peng Rachel

Target audience:

All educators

Learning Dimension:

3

Registration:
OPAL

(Code: 73207)



IER0018 Learning Sciences and Innovation Series: Designing authentic game-based learning environments

This course introduces participants to game-based learning environments (such as Minecraft) and helps them design contexts for authentic learning using such technologies. It comprises a mixture of lectures, hands-on sessions and groupwork.

Duration:

6 hours

Dates:

12 and 14 August 2020

Time:

2.30pm – 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$65.20

Non-MOE participants - \$354.10

Trainer:

Dr Lim Yang Teck Kenneth

Target audience:

Primary and Secondary school teachers

Learning Dimension:

4

Registration:

PLaCE

(<https://place.nie.edu.sg/CourseSearch/CourseDetails/2827>)

ICT0509 Data-Driven Conversations in Professional Learning Teams

This is a hands-on skills development course, conducted in the computer lab at NIE. The objective of this course is to gain practical experiences in applied statistics for educational research. The aim of the course is to provide participants with the skills to confidently conduct a basic repertoire of statistical data analyses and interpret the results in light of their inquiry project.

Duration:

8 hours

Dates:

11 November 2020 (1st run)

25 November 2020 (2nd run)

Time:

8.30am to 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$86.60

Non-MOE participants - \$471.80

Trainer:

Dr Yang Chien Hui

Target audience:

All educators

Learning Dimension:

5

Registration:

OPAL

(Code: 73589)



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ICT0312 Assessment Literacy 3.1: Assessment Leadership - Policy and Practice

By the end of the course, participants should be able to have conceptual clarity in the distinction and relationship between assessment of and for learning. They will also understand the conditions for, and essential elements of, feedback practice in schools and classrooms; and use rubrics to anticipate, articulate and accentuate academic standards in schools. Lastly, they will learn to appreciate the role and complexities of leadership in guiding and enhancing formative assessment practices in schools.

Duration:

12 hours

Dates:

14 and 31 August 2020

Time:

9.00am - 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Dr Goh Swee Peng Rachel

Target audience:

All educators

Learning Dimension:

3

Registration:
OPAL

(Code: 50669)

ICT0202 Differentiated Instruction for Diverse Learners

This course provides an overview of differentiated instruction (DI), and its basic principles and components. It aims to help participants develop an understanding of different learner needs and interests in the regular classroom. The teachers will explore the principles and practices of differentiated instruction and learn to cater to these needs using DI principles and strategies. As part of the course, participants will also adapt and differentiate activities/materials to meet varied learning needs and interests. Participants will analyse and discuss issues in implementation, as well as solutions to problems inherent in a differentiated classroom. The roles of teachers will be examined and possible challenges will also be discussed.

Duration:

14 hours

Dates:

16 and 17 September 2020

Time:

9.00am - 5.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$150.80

Non-MOE participants - \$824.90

Trainer:

Dr Lucy Fernandez

Target audience:

All educators

Learning Dimension:

4

Registration:
OPAL

(Code: 70205)



INS2142 Refresher on Machining Skills I (Meranti – Mild Steel)

This course is one of the four 'Refresher on Machining Skills' in-service courses for all D&T teachers and EWIs. As a whole, the main overarching aim of the four courses is to refresh, familiarise and internalise practical knowledge and skills. One would have clocked the essential number of hours of confidence practicing on the machines after completing all the four courses to be competent at entry level. For D&T teachers and EWIs who are new to wood lathe, the basics of handling the machine will be taught. Ancillary but important practical skill exercises on brazing and welding will be carried out.

You will be assessed for this course.

Duration:

18 hours

Dates:

9, 10 and 12 November 2020

Time:

9.00am to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)
MOE participants - \$289.90
Non-MOE participants - \$1,156.60

Trainer:

Mr Jason Tan and Mr Ng Yong Sim

Target audience:

Design and Technology teachers

Learning Dimension:

3

Registration:

OPAL
(Code: 80290)

INS2139 Design-and-Make I (Randomness!)

This in-service course is one of the three Design-and-Make in-service courses to support the teaching and learning of Design & Technology (D&T) at the lower secondary level. The three courses are standalone and they cover three fundamental design techniques necessary for the implementation of the lower secondary programme, namely, Design-and-Make I (Randomness!); Design-and-Make II (Shape borrowing!); and Design-and-Make III (SCAMPER!). The main objective of the three courses is to ground D&T teachers in the practice by going through exercises and practices first as a teacher-designer and second as a D&T pedagogue.

You will be assessed for this course.

Duration:

24 hours

Dates:

14, 15 and 16 September 2020 (1st run)
21, 22 and 23 September 2020 (2nd run)
28, 29 and 30 September 2020 (3rd run)

Time:

8.30am to 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)
MOE participants - \$386.20
Non-MOE participants - \$1,541.80

Trainer:

Mr Ng Yong Sim

Target audience:

Design and Technology teachers

Learning Dimension:

3

4

Registration:

OPAL
(Code: 80288)



INS2140 Design-and-Make II (Shape Borrowing!)

This in-service course is one of the three Design-and-Make in-service courses to support the teaching and learning of Design & Technology (D&T) at the lower secondary level. The three courses are standalone and they cover three fundamental design techniques necessary for the implementation of the lower secondary programme, namely, Design-and-Make I (Randomness!); Design-and-Make II (Shape Borrowing!); and Design-and-Make III (SCAMPER!). The main objective of the three courses is to ground D&T teachers in the practice by going through exercises and practices first as a teacher-designer and second as a D&T pedagogue.

You will be assessed for this course.

Duration:

24 hours

Dates:

14, 15 and 16 September 2020 (1st run)
21, 22 and 23 September 2020 (2nd run)
28, 29 and 30 September 2020 (3rd run)

Time:

8.30am to 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)
MOE participants - \$386.20
Non-MOE participants - \$1,541.80

Trainer:

Mr Jason Tan

Target audience:

Design and Technology teachers

Learning Dimension:

3 4

Registration:

OPAL
(Code: 80289)

INS2141 Design-and-Make III (Scamper!)

This in-service course is one of the three Design-and-Make in-service courses to support the teaching and learning of Design & Technology (D&T) at the lower secondary level. The three courses are standalone and they cover three fundamental design techniques necessary for the implementation of the lower secondary programme, namely, Design-and-Make I (Randomness!); Design-and-Make II (Shape Borrowing!); and Design-and-Make III (SCAMPER!). The main objective of the three courses is to ground D&T teachers in the practice by going through exercises and practices first as a teacher-designer and second as a D&T pedagogue.

You will be assessed for this course.

Duration:

24 hours

Dates:

12, 13 and 14 October 2020 (1st run)
26, 27 and 28 October 2020 (2nd run)
2, 3 and 4 November 2020 (3rd run)

Time:

8.30am to 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)
MOE participants - \$386.20
Non-MOE participants - \$1,541.80

Trainer:

Mr Jason Tan and Mr Ng Yong Sim

Target audience:

Design and Technology teachers

Learning Dimension:

3 4

Registration:

OPAL
(Code: 80180)



INS2145 Refresher on Machining Skills IV (Jelutong – Copper)

This course is one of the four 'Refresher on Machining Skills' in-service courses for all D&T teachers and EWIs. As a whole, the main overarching aim of the four courses is to refresh, familiarise and internalise practical knowledge and skills. One would have clocked the essential number of hours of confidence practicing on the machines after completing all the four courses to be competent at entry level. For D&T teachers and EWIs who are new to wood lathe, the basics of handling the machine will be taught. Ancillary but important practical skill exercises on brazing and welding will be carried out.

You will be assessed for this course.

Duration:

18 hours

Dates:

5, 6 and 7 October 2020 (1st run)
19, 20 and 21 October 2020 (2nd run)

Time:

9.00am to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)
MOE participants - \$289.90
Non-MOE participants - \$1,156.60

Trainer:

Mr Jason Tan and Mr Ng Yong Sim

Target audience:

Design and Technology teachers

Learning Dimension:

2 3

Registration:

OPAL
(Code: 80305)

INS2162 Facilitating Pupils in Designing in the 2019 D&T US T&L Syllabus

Facilitating secondary school pupils in designing demands an understanding of the design process in-action at the secondary school level. Teacher-as-designer; teacher-pupil designer-coach in-action; and building of a culture of creative-self in teacher and in pupil are three broad practices that intertwined in the design process in-action, and influence the way to facilitate pupils in designing. They comprise a range of unique pedagogical acts necessary for an effective facilitation process. This course educates and trains D&T teachers to facilitate pupils in designing using this range of pedagogical acts underpinned by the Singapore D&T education philosophy and centred on the 2019 D&T Teaching & Learning Syllabus for Upper Secondary.

You will be assessed for this course.

Duration:

80 hours

Dates:

16 to 27 November 2020

Time:

8.30am to 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)
MOE participants - \$1,285.00
Non-MOE participants - \$5,137.00

Trainer:

Mr Jason Tan and Mr Ng Yong Sim

Target audience:

Design and Technology teachers

Learning Dimension:

3 4

Registration:

OPAL
(Code: 50861)



IER0019 Learning Sciences and Innovation Series: Collaborative Learning and Differentiated Instruction - Principles and Practice

This course is designed to provide teachers with resources to create a learning environment that will deepen individual student's learning by adapting strategies associated with collaborative learning and differentiated instruction. Teachers will examine and deconstruct the practices of collaborative learning to drive principled and practical ways to differentiate instruction by interest and readiness.

Duration:
3 hours (1 hour e-learning)

Dates:
18 September 2020

Time:
3.00pm to 5.00pm

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$33.10
Non-MOE participants - \$177.55

Trainer:
Dr Teo Chew Lee

Target audience:
Primary and Secondary school teachers

Learning Dimension:

3

Registration:
PLaCE
(<https://place.nie.edu.sg/CourseSearch/CourseDetails/2829>)



IEC0014 Engaging Parents: A Practical Approach (for Beginning Teachers)

Positive interactions and positive relationships with parents and other community members can improve student performance, increase parent and volunteer involvement in schools, decrease student truancy, and increase student health (Chrispeels, 2006; McMahon, Browning, Rose-Colly, 2001; MOE, 2012; Bosma, et. al, 2010). This course focuses on the strategies, resources, and tools that will help educators build healthy relationships with parents and other community members.

Duration:

12 hours

Dates:
14 and 15 October 2020 (1st run)15 and 16 October 2020 (2nd run)
Time:

9.00am to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Dr Mercy Michael (coordinator)

Target audience:

All educators

Learning Dimension:

7

Registration:
OPAL

(Code: 70450)

IEC1025 Managing Challenging Behaviours for Primary School AED (LBS)

The course provides participants with an opportunity to reflect and consolidate understanding of the common types of challenging behaviours (e.g., self-injury, aggression) encountered in primary school settings and their possible underlying reasons/functions for those students concerned. Some research dispelling the popular wisdom that people can freely control their behaviours, suppress their impulses, conquer their temptations, or overcome their vices if only they put their mind to it or try harder and persist will be shared and evaluated. What makes sense based on self-regulatory strength research for AEDs to support students with challenging behaviours will be worked on. Participants will also work on using Functional Behaviour Assessment (FBA) to develop a behavior intervention plan (BIP) for implementation.

Duration:

24 hours

Dates:

5, 26 August and 16 September 2020

Time:

8.30am to 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$257.80

Non-MOE participants - \$1,413.40

Trainer:

Mr Norman Kee Kiak Nam

Target audience:

Primary school educators

Registration:
OPAL

IEC0119 The Joy of Teaching and Learning through Play in the Lower Primary Years

This course is intended to provide you with opportunities to broaden your knowledge about play as curriculum and pedagogy, and to develop skills in designing and facilitating learning experiences that include play.

Duration:

3 hours

Dates:

11 and 13 August 2020

Time:

2.30pm to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$33.10

Non-MOE participants - \$177.55

Trainer:

Dr Hanin Binte Hussain

Target audience:

Primary school teachers

Learning Dimension:

Registration:

OPAL

IEC0121 Effective Parent-Teacher Communication

The course provides participants with an opportunity to reflect and consolidate understanding of the common types of challenging behaviours (e.g., self-injury, aggression) encountered in primary school settings and their possible underlying reasons/functions for those students concerned. Some research dispelling the popular wisdom that people can freely control their behaviours, suppress their impulses, conquer their temptations, or overcome their vices if only they put their mind to it or try harder and persist will be shared and evaluated. What makes sense based on self-regulatory strength research for AEDs to support students with challenging behaviours will be worked on. Participants will also work on using Functional Behaviour Assessment (FBA) to develop a behavior intervention plan (BIP) for implementation.

Duration:

10 hours

Dates:

20 and 21 August 2020 (1st run)

17 and 18 November 2020 (2nd run)

19 and 20 November 2020 (3rd run)

Time:

9.30am to 4.30pm (Day 1)

9.30am to 1.30pm (Day 2)

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$108.00

Non-MOE participants - \$589.50

Trainer:

Dr Mercy Michael (coordinator)

Target audience:

Primary school educators

Learning Dimension:

Registration:

OPAL



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IEC0118 Creating your Own Recipe to Foster Joyful Learning for Young Children

Have you ever wondered about the ingredients that can contribute to joyful learning for young children? In this course, you will have opportunities to explore some of these ingredients, i.e. beliefs about children, neuroscience perspective on learning and development, play as pedagogy and advocacy. You will be prompted to reflect on how these ingredients are related to relevant aspects of the Singapore Teaching Practice (STP). You will also be invited to consider how you can use these ingredients to create your own recipe to support joyful learning for the children you teach.

Duration:

3 hours

Dates:

24 and 28 September 2020

Time:

2.30pm to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$33.10

Non-MOE participants - \$177.55

Trainer:

Dr Hanin Binte Hussain

Target audience:

Primary school teachers

Learning Dimension:

2 3 4 5

Registration:

OPAL



IEL1063 Strategies for Developing a Reading Culture through the School Library (Primary)

This in-service course is designed for any primary school teacher who is interested in building the school's reading culture through the school library. The course will focus on three key areas:

- Housekeeping essentials: Making your library and library collections accessible and attractive.
- Glam it up!: Planning and executing exciting library events
- Don't lose the momentum: Planning and delivering reading programmes and routines

Duration:

8 hours

Dates:

(To be advised)

Time:

8.30am to 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$86.60

Non-MOE participants - \$471.80

Trainer:

Mrs Boey Wah Fong

Target audience:

Primary school teachers

Learning Dimension:

4 5 6 7

Registration:

OPAL

(Code: 90482)



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IME2095 Teaching A-Level Mathematics using Real World Contexts

The real-world data and modes of operations are often complex and inexact. Thus, the 21st Century students must have the relevant mathematical skills to handle such complexity and inexactness, which intrinsically are unlike what students usually encounter in ideal theoretical settings. The A-Level Mathematics syllabus recognizes this emergent need to handle real-life contexts and emphasizes on the need to apply mathematics to tackle problems in such contexts. Such an emphasis must be realized in the processes of teaching and learning, and eventually must be manifested in all modes of assessment.

Duration:

12 hours

Dates:

4, 11, 18 and 25 August 2020

Time:

2.30pm to 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)
 MOE participants - \$129.40
 Non-MOE participants - \$707.20

Trainer:

Associate Professor Ho Weng Kin

Target audience:

Junior College teachers

Learning Dimension:

3

Registration:

OPAL
 (Code: 31335)

IME2041 Teaching of Calculus in Secondary Additional Mathematics

This course discusses the pedagogy and the underlying principles based on sound content knowledge of secondary school calculus.

Duration:

12 hours

Dates:

4, 11, 18 and 25 August 2020

Time:

2.30pm to 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)
 MOE participants - \$129.40
 Non-MOE participants - \$707.20

Trainer:

Associate Professor Toh Tin Lam

Target audience:

Secondary school teachers

Learning Dimension:

3

Registration:

OPAL
 (Code: 30764)



IME1040 Promoting Metacognition in Primary School Children

The focus of this course is to equip teachers with approaches to address metacognition in the primary mathematics classroom.

Duration:
12 hours

Dates:
1, 15, 22 and 29 September 2020

Time:
2.30pm to 5.30pm

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$129.40
Non-MOE participants - \$707.20

Trainer:
Associate Professor Lee Ngan Hoe

Target audience:
Primary school teachers

Learning Dimension:
4

Registration:
OPAL
(Code: 31267)



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TO TOP

IME2105 Creating Mathematically Powerful Classrooms

The course aims to equip educators with a five-dimensional framework that facilitates the creation of activities that nurture mathematically powerful classrooms. The course will engage participants in examining the content and cognitive demand of mathematical tasks, and classroom discourse of their lessons. Following which participants will create/design activities that facilitate learning in mathematically powerful classrooms.

Duration:

12 hours

Dates:

 7 and 8 September 2020 (1st run)
 23 and 24 November 2020 (2nd run)

Time:

9.00am to 4.00pm

Course fee for:

 (includes 7% GST and \$1 copyright fee)
 MOE participants - \$129.40
 Non-MOE participants - \$707.20

Trainer:

Professor Berinderjeet Kaur

Target audience:

Secondary school teachers

Learning Dimension:

3

4

Registration:
PLaCE
<https://place.nie.edu.sg/CourseSearch/CourseDetails/2660>

IME2103 Strategies to Engage Secondary School Students in Reasoning and Communication

The course aims to equip educators with simple but effective strategies they may use to engage students in reasoning and communication. The course will engage participants in designing mathematical tasks and creating learning environments that nurture students' articulation of their mathematical thinking and knowledge.

Duration:

12 hours

Dates:

 9 and 10 September 2020 (1st run)
 25 and 26 November 2020 (2nd run)

Time:

9.00am to 4.00pm

Course fee for:

 (includes 7% GST and \$1 copyright fee)
 MOE participants - \$129.40
 Non-MOE participants - \$707.20

Trainer:

Professor Berinderjeet Kaur

Target audience:

Secondary school teachers

Learning Dimension:

3

4

Registration:
PLaCE
<https://place.nie.edu.sg/CourseSearch/CourseDetails/2645>


IME1050 Holistic Assessment Performance Tasks: For Primary 1 & 2 Teachers (Mathematics)

This course discusses different performance tasks for Primary 1 and 2 pupils and the evaluation of mathematical thinking and reasoning from these tasks. Participants will work on some tasks and engage in discussion about task design.

Duration:

3 hours

Dates:

17 September 2020 (1st run)

24 September 2020 (2nd run)

30 November 2020 (3rd run)

Time:

2.30pm to 5.30pm (1st and 2nd run)

9.30am to 12.30pm (3rd run)

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$33.10

Non-MOE participants - \$177.55

Trainer:

Dr Joseph Yeo Kai Kow

Target audience:

Primary school teachers

Learning Dimension:

4

Registration:

OPAL

(Code: 31322)

IME2035 Algebra in Secondary Elementary Mathematics

This course will focus on (i) topics such as indices, graphs, solving quadratic/fractional equations, solving linear inequalities, and matrices; and (ii) the solving of Elementary Mathematics questions involving HOTS (Higher Order Thinking Skills).

Duration:

12 hours

Dates:

2 and 4 November 2020

Time:

9.00am to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Assistant Professor Chua Boon Liang

Target audience:

Secondary School teachers

Learning Dimension:

3

Registration:

OPAL

(Code: 30762)



IME1035 The Use of Games in the Teaching and Learning of Primary Mathematics

Working memory has been found to be an important factor in helping children learn mathematics. There are a number of games specially designed around specific mathematics concepts to help children improve their working memory and at the same time enhance their mathematical reasoning skills, their visual and spatial orientation. In this course, teachers would be introduced to a range of such games.

Duration:

12 hours

Dates:

17 and 18 November 2020

Time:

9.00am to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Associate Professor Ng Swee Fong

Target audience:

Primary school teachers

Learning Dimension:

3

Registration:
OPAL

(Code: 31200)

IME2055 Metacognition in the Mathematics Classroom

The aim of this course is to extend teachers' knowledge and understanding of the development of fractions. This course also assists teachers in developing lessons on fractions using innovative approaches that promote thinking.

Duration:

12 hours

Dates:

17 and 18 November 2020

Time:

9.00am to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Associate Professor Lee Ngan Hoe

Target audience:

Secondary school teachers

Learning Dimension:

2

3

4

Registration:
OPAL

(Code: 30931)



IME2097 Engaging Normal Technical Students in Mathematics

This course will assist secondary mathematics teachers to examine the techniques and processes of engaging their normal technical stream students. Teachers will also learn how to use manipulative to help normal technical stream students understand mathematics concepts. Participants will revisit Concrete-Pictorial-Abstract (or C-P-A) approach to design activity-based lessons, including those for concept development and consolidation. Course participants are expected to participate in critical discussions pertaining to the various activities and through the process to develop a deeper appreciation and greater insights into how normal technical students learn.

Duration:

6 hours

Dates:

17 November 2020

Time:

9.00am to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$65.20

Non-MOE participants - \$354.10

Trainer:

Dr Joseph Yeo Kai Kow

Target audience:

Secondary school teachers

Learning Dimension:

3

4

Registration:
OPAL

(Code: 31385)

IME2099 Teaching Towards Big Ideas for Secondary Mathematics Teachers

Big ideas and Learning Experiences are included in our latest mathematics curriculum to enhance students' understanding and appreciation of mathematics. While Learning Experiences are conceptualized in terms of mathematical tasks, big ideas are intended to be infused rather than explicitly taught. In some ways, big ideas are meant to guide the teaching and learning of mathematics. One approach to do this is to think of mathematics as a discipline. In this interactive workshop, teachers will unpack notion of big ideas, explore ways to teach about big ideas at pedagogically opportune times, and design appropriate learning experiences to teach towards big ideas.

Duration:

6 hours

Dates:
17 November 2020 (1st run)18 November 2020 (2nd run)
Time:

9.00am to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$65.20

Non-MOE participants - \$354.10

Trainer:

Assistant Professor Choy Ban Heng

Target audience:

Secondary school teachers

Learning Dimension:

3

Registration:
OPAL

(Code: 31386)



IME2089 Maths Problems in Real-World Context: Design & Implementation

The use of problems in real-world contexts for teaching and learning has very much been in recent focus in Singapore schools and in international comparative studies such as PISA. Problems in real-world contexts are interesting platforms to showcase students' mathematical reasoning and communication. There are two parts to this course. The first part will discuss the different types of problems in real-world contexts involving differing degrees of open-endedness for teaching and learning purposes. The second part will focus on how a teacher could design and use PRWC tasks for assessment purposes according to the Singapore secondary school E-Math syllabus.

Duration:

12 hours

Dates:

18 and 19 November 2020

Time:

9.00am to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)
 MOE participants - \$129.40
 Non-MOE participants - \$707.20

Trainer:

Dr Dawn Ng

Target audience:

Secondary school teachers

Learning Dimension:

3

Registration:

OPAL
 (Code: 31246)

IME1044 Designing Learning Experiences in P5 & P6 Mathematics

This course will focus on using a range of activities that are meaningful and engaging for teaching mathematics in the primary 5 and 6 classroom. Participants in this course will engage in a variety of hands-on activities that can be used as learning experiences in their mathematics classrooms. Links will be made with the Singapore mathematics curriculum for participants to think more critically how those activities achieve curriculum objectives.

Duration:

6 hours

Dates:

19 November 2020

Time:

9.00am to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)
 MOE participants - \$65.20
 Non-MOE participants - \$354.10

Trainer:

Dr Cheng Lu Pien

Target audience:

Primary school teachers

Learning Dimension:

3

4

Registration:

OPAL
 (Code: 31387)



IME1045 Teaching and Learning of Measurement at Lower Primary

The course aims to increase teachers' pedagogical content knowledge for the teaching of Measurement at the lower primary levels. Principles of measurement and measurement concepts at the lower primary levels involving length, mass, area, and volume are covered. The discussion will also be viewed from the perspective of teaching towards the big idea measure. Related activities and teaching strategies will be also be examined.

Duration:

12 hours

Dates:

24 and 25 November 2020

Time:

9.00am to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Associate Professor Lee Ngan Hoe

Target audience:

Primary school teachers

Learning Dimension:

3

4

Registration:
OPAL

(Code: 31375)

IME1037 Formative Assessment in Primary Mathematics: Effective Implementation & Practice

The focus of this course is on how to develop formative assessment tasks as part of teaching and learning in primary mathematics classrooms.

Duration:

12 hours

Dates:

24 and 25 November 2020

Time:

9.00am to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Dr Dawn Ng

Target audience:

Primary school teachers

Learning Dimension:

3

Registration:
OPAL

(Code: 31268)



IME1047 Fractions: Promoting Connections and Deep Learning

This course will focus on different strategies to promote connections and deep learning for fractions in the primary mathematics classrooms. Participants in this course will be actively engaged in the selection, design and critical reflection of mathematical tasks that cultivate mathematical reasoning and thinking for fractions.

Duration:

12 hours

Trainer:

Dr Cheng Lu Pien

Dates:

25 and 26 November 2020

Target audience:

Primary school teachers

Time:

9.00am to 4.00pm

Learning Dimension:

3

4

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Registration:
OPAL

(Code: 30957)

IME1046 Geometry: Developing Spatial Visualisation (Upper Primary)

The course will present different approaches to some geometry topics and provide sample hands-on activities with manipulatives organized into four sections: 2-D geometry concepts including symmetry and angles; 3-D geometry concepts including nets and drawing; relationships among properties of shapes including angle sums; and enrichment including problem solving in spatial visualization. The van Hiele model on geometry learning will be explored to develop pupils' insight and higher levels of thinking.

Duration:

12 hours

Trainer:

Dr Joseph Yeo Kai Kow

Dates:

26 and 27 November 2020

Target audience:

Primary school teachers

Time:

9.00am to 4.00pm

Learning Dimension:

3

4

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Registration:
OPAL

(Code: 31376)



IPE0037 Strength and Conditioning for PE and Sports CCA Teachers

This course is designed to equip participants with research-based knowledge of strength and conditioning and how it can help improve physical fitness, and performance in sports for students and student-athletes. Participants will be taught to design a specific “Strength and Conditioning” training plan using the knowledge in training principles, exercise physiology, plyometric, speed and agility.

You will be assessed for the course.

Duration:

20 hours

Dates:

3 and 4 November 2020

Time:

8.30am to 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$215.00

Non-MOE participants - \$1,178.00

Trainer:

Dr Menon Jesudas

Target audience:

All educators

Learning Dimension:

4

Registration:

OPAL

IPE2008 Differentiated Instruction In Teaching Physical Education (Secondary)

This course serves to provide an overview of the principles of Differentiated Instruction (DI) in teaching Physical Education. It aims to discuss the key principles of differentiation grounded on the work of Tomlinson (1995), and deepen insights on how to differentiate physical education lessons. It is an opportunity for teachers to consider the diverse learning profiles of students in the design of physical education lessons, and to learn how to differentiate the elements of content, process and/ or product to meet subject and assessment needs.

You will be assessed for the course.

Duration:

20 hours

Dates:

9 and 10 November 2020

Time:

8.30am to 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$215.00

Non-MOE participants - \$1,178.00

Trainer:

Dr Steven Tan, Mr Irfan Ismail and Mr Joel Chia

Target audience:

Secondary school Physical Education teachers

Learning Dimension:

3

4

Registration:

OPAL



IPE0028 Psychological Preparation for Athletes in Sports

This course helps coaches and teachers become more knowledgeable in terms of the mental demands of sports in competition. This course also provides an introduction to applied sport psychology in the school setting. This course introduces various mental skills for training to help athletes in training and competition. A mix of practical and theoretical aspects of this course will equip coaches and teachers with the necessary skills for developing basic mental skills training for athletes.

Duration:

20 hours

Dates:

11 and 12 November 2020

Time:

8.30am to 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$215.00

Non-MOE participants - \$1,178.00

Trainer:

Dr Zason Chian Lit Khoon

Target audience:

All educators

Learning Dimension:

4

Registration:
OPAL

IPE0026 Coaching Children in Sports

This course is designed to equip coaches and teachers with the necessary skills and knowledge in dealing with children who are involved in recreation and developmental sports. This course provides an introduction to the theory of coaching and learning in the school sports setting and will cover various aspects relating to effective coaching of children for training and competition. The course will have a mix of practical and theoretical aspects to equip coaches and teachers the necessary skills for developing basic knowledge and skills for coaching children involved in sports.

Duration:

20 hours

Dates:

17 and 18 November 2020

Time:

8.30am to 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$215.00

Non-MOE participants - \$1,178.00

Trainer:

Associate Professor Koh Koon Teck

Target audience:

Secondary school and Junior College teachers

Learning Dimension:

4

Registration:
OPAL

(Code: 30957)



IPS0008 Empowering Student Social and Emotional Competencies

A meta-analysis of 213 programmes, primarily covering three decades of research, found that social and emotional learning interventions that address social-emotional competencies increase students' academic performance by 11 percentile points, as compared to students who did not participate in such SEL programmes (Durlak et al., 2011). The social and emotional learning programmes also reduced aggression and emotional distress among students, increased helping behaviors in school, and improved positive attitudes toward self and others (Durlak et al., 2011). Effective SEL programmes addressing the five key competencies of self-awareness, self-management, social awareness, relationship management and responsible decision-making explicitly and sequentially, and used active-learning techniques to engage young people in developing an understanding of them. There are several person-centered reasons why SEL can promote academic success. Self-regulation, the ability to control and manage thoughts, feelings, and behaviors, has been linked to academic achievement in numerous studies. Students who are more self-aware and confident about their learning capacities try harder and persist in the face of challenges (Aronson, 2002; cited in Durlak et al., 2011). Students who set high academic goals, have self-discipline, motivate themselves, manage stress, and organise their approach to learn more and get better grades (Duckworth & Seligman, 2005; Elliot & Dweck, 2005; cited in Durlak et al., 2011). Finally, students who use problem-solving skills to overcome obstacles and make responsible decisions about studying and completing homework do better academically (Zins & Elias, 2006; cited in Durlak et al., 2011). Teachers and schools must take the responsibility to foster and to strengthen students' personal competencies and social support networks and their social-emotional competencies in self and other management. SEL can help to unleash the potential within positive and encouraging school environments to support students' well-being and success.

You will be assessed for the course.

Duration:

16 hours

Dates:

24 and 25 August 2020

Time:

8.30am to 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$172.20

Non-MOE participants - \$942.60

Trainer:

Associate Professor Isabella Wong

Target audience:

All educators

Learning Dimension:

4

Registration:

OPAL

(Code: 72710)



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IPS0003 Thriving Teachers, Thriving Students: Social-Emotional Components

Social and emotional competencies aren't secondary to the mission of education, but are concrete factors in the success of teachers, students, and schools. (Jones, Bouffard & Weissbourd, 2013). It is not only intuitive, but research has clearly indicated that social-emotional competencies influence everything from teacher-student relationships to classroom management to effective instruction to teacher burnout (Jennings and Greenberg, 2009). Teachers' SEL competencies influence students in at least three ways. First, SEL influences the quality of teacher-student relationships. Teachers who are good at regulating their emotions are more likely to display positive affect and higher job satisfaction (Brackett, et al., 2010). When students have high-quality relationships with teachers, they have better social adjustment and higher academic competence (Mashburn et al., 2008; Raver, Garner, & Smith-Donald, 2007). Second, teachers model SEL skills for students – intentionally or not. Students learn from the way teachers manage and maintain control of selves and classroom, the ways they stay focused, and shift tactics and be adaptable and flexible and responsive. Third, teachers' SEL abilities likely influence their classroom organization and management – a positive environment that is built on social trust. Furthermore, teachers with stronger SEL competencies are more likely to implement SEL programmes targeted to students with greater fidelity. Practices and policies to support and foster teachers' own SECs must not be neglected or overlooked.

This workshop explores how enhancing educators' social and emotional competency (SEC) can help increase their engagement in teaching, strengthen their relationships with students, and improve their stress management, all of which lead to improved student outcomes. Through interactive exercises, participants examine the connection between the 5 SEL competencies of self-awareness; self-management; social awareness; social management; responsible decision-making and effective teaching; learn to identify early signs of stress; reconnect to their identity as a teacher and develop a self-care plan for managing stress. Participants review the latest research related to adult SEC and how it can support their effectiveness as educators. This workshop is highly active, brain-based, and experiential.

You will be assessed for the course.

Duration:

16 hours

Dates:

2 and 3 November 2020

Time:

8.30am to 5.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$172.20

Non-MOE participants - \$942.60

Trainer:

Associate Professor Isabella Wong

Target audience:

All educators

Learning Dimension:

1

2

Registration:

OPAL

(Code: 70457)



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IER0016 Basic Statistics for Education and Education Research

An introduction to basic concepts of statistics for education and education research. The following statistical topics will be covered: descriptive statistics, correlation, hypothesis testing using t-tests (independent and dependent), one-way ANOVA and multiple regression. Participants will also learn how to organise data, analyse, interpret and report their findings.

Participants will be introduced the statistical program called "R". R is a robust, well-used and free statistical program. Two packages in the R program will be used – the R Commander (Rcmdr) and Less R (lessR). These two packages are simple and easy to use (Microsoft Excel-like interface).

This is a hands-on skill development workshop conducted in the computer lab. To maximise the learning experience, participants are encouraged to bring their own data set and computer for analysis.

Duration:

12 hours

Dates:

317 and 24 September 2020

Time:

9.00am to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Dr Tay Lee Yong

Target audience:

All educators

Learning Dimension:

3

4

Registration:
OPAL

(Code: 31464)



INS2185 Deepening PCK for theme of Models for Lower Secondary Science

The Lower Secondary Science (LSS) curriculum is designed as integrated science where topics from the three disciplines of science organised around themes. Each of the themes of Diversity - Models, Systems and Interactions - consists of topics from biology, chemistry and physics. In this course, we focus on deepening the pedagogical content knowledge for the topics under the theme of Models using the CoRe framework.

Duration:

6 hours

Dates:

3 and 4 August 2020

Time:

9.30am to 4.30pm

Course fee for:

(includes 7% GST and \$1 copyright fee)
 MOE participants - \$97.30
 Non-MOE participants - \$386.20

Trainer:

Associate Professor Teo Tang Wee

Target audience:

Secondary school teachers

Learning Dimension:

3

Registration:

OPAL
 (Code: 41388)

INS2156 Addressing Misconceptions and Learning Difficulties in Chemistry

A number of topics in Chemistry are prone to misconceptions and learning difficulties among students. This course focuses on addressing some of the common misconceptions and learning difficulties encountered in the topics of stoichiometry, reaction kinetics, and electrochemistry at the secondary level using conceptual change strategies.

Duration:

7 hours

Dates:

(To be advised)

Time:

9.00am to 5.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)
 MOE participants - \$113.35
 Non-MOE participants - \$450.40

Trainer:

Associate Professor Subramaniam S/O Ramanathan

Target audience:

Secondary school teachers

Learning Dimension:

3

Registration:

OPAL
 (Code: 41314)



INS2178 Designing and Conducting Programme Evaluation For Diverse Contexts

This course will help teachers better understand and be equipped to teach science using a thematic approach at the lower secondary level. Teachers will learn to leverage on the strength of a thematic approach to plan and implement lessons (including practical work) to develop core Ideas, practices of science, values, ethics and appropriate attitudes in their students. Teachers will also learn to craft alternative assessments to support teaching and learning.

Duration:

12 hours

Dates:

5 and 6 August 2020

Time:

9.00am to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$193.60

Non-MOE participants - \$771.40

Trainer:

Associate Professor Lee Yew Jin, Associate Professor Timothy Tan, Mr Ong Kia Siang and Dr Ong Yann Shiou

Target audience:

All educators

Learning Dimension:

3

4

Registration:

OPAL

(Code: 41328)

INS1033 Teaching Primary Science in Inclusive Classrooms

Science lessons contain a lot of scientific jargon. Hence, it can be challenging for students, especially those with reading and writing difficulties, to learn science. In this course, participants will learn some basic strategies useful for the teaching of science in primary classrooms.

Duration:

6 hours (fully online)

Dates:

27 September to 3 October 2020 (e-learning)

6 October 2020 (Video Conferencing)

Time:

Self-paced (27 September to 3 October 2020)

3.00pm to 5.00pm (6 October 2020)

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$65.20

Non-MOE participants - \$386.20

Trainer:

Associate Professor Teo Tang Wee

Target audience:

Primary school teachers

Learning Dimension:

3

Registration:

OPAL

(Code: 41365)



INS1038 Primary Science Content Updating: Forces

This course is designed and customized for primary school science teachers to understand, appreciate and apply the concepts and principles of forces in primary school science syllabus. The participants will learn how to use the scientific inquiry-based approach in teaching the topic of the types and effects of forces by exploring and carrying out laboratory activities using simple materials, followed by explanation of these observations. The simple and yet effective activities on forces are designed for teachers to learn and to use them for their own teaching in classrooms. The teachers will also learn how to design questions on this topic to evaluate the learning of students.

Duration:

4 hours

Dates:

19 October 2020

Time:

1.00pm to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$65.20

Non-MOE participants - \$257.80

Trainer:

Assistant Professor Tsao Hoi Nok

Target audience:

Primary school teachers

Learning Dimension:

3

4

Registration:
OPAL

(Code: 41353)

INS1040 Primary Science Content Updating: Kinetic Energy and Potential Energy

The kinetic energy and potential energy course is customized for primary school science teachers to update their content knowledge and skills in understanding and applying the concepts and principles of energy in primary school science syllabus. The participants will learn how to use the scientific inquiry-based approach in teaching the topic of the kinetic energy and types of potential energy, their sources, and energy conversion by exploring and carrying out laboratory activities using simple lab apparatus, followed by explanation of these observations. The simple and yet effective activities on kinetic and potential energies are designed for teachers to learn and to use them for their own inquiry-based teaching in classrooms. The teachers will also learn how to design questions on this topic to assess the learning of students on these energies.

Duration:

4 hours

Dates:

20 October 2020

Time:

1.00pm to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$65.20

Non-MOE participants - \$257.80

Trainer:

Assistant Professor Tsao Hoi Nok

Target audience:

Primary school teachers

Learning Dimension:

3

4

Registration:
OPAL

(Code: 41354)



INS1037 Primary Science Content Updating: Electrical System

This 4-hour course on electrical system is customized for primary school science teachers to update their content knowledge and skills in understanding and applying the concepts, principles and uses of electricity in primary school science syllabus. The participants will learn how to use the scientific inquiry-based approach in teaching the topics of electrical circuits and their components, electrical current and voltage, and uses of electricity by exploring and carrying out laboratory activities using lab apparatus, followed by explanation of these observations. The simple and yet effective activities on electricity are designed for teachers to learn and to use them for their own teaching in classrooms. The teachers will also learn how to design questions on this topic to assess the learning of students on the electrical system.

Duration:

4 hours

Dates:

21 October 2020

Time:

1.00pm to 4.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$65.20

Non-MOE participants - \$257.80

Trainer:

Assistant Professor Tsao Hoi Nok

Target audience:

Primary school teachers

Learning Dimension:

3 4

Registration:**OPAL**

(Code: 41357)

INS2190 Integrating STEM into Lower Secondary Science

STEM (science, technology, engineering, mathematics) tasks should explicitly integrate two or more of the four S-T-E-M disciplines. In this course, participants will learn how the meriSTEM@NIE STEM Quartet framework is used to guide the design and implementation of a task that integrates all four disciplines in solving an authentic problem. During the course, participants will have hands-on experience in designing and implementing an integrated STEM task to solve a real-world problem. Learning objectives from science, mathematics, and design and technology will be addressed in the task. The conceptual, epistemic and social affordances of the STEM task will be discussed.

Duration:

16 hours (2 hours e-learning)

Dates:

26 October, 2 and 3 November 2020

Time:

Online (26 October 2020)

8.30am to 5.30pm (2 November 2020)

9.00am to 4.00pm (3 November 2020)

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$257.80

Non-MOE participants - \$1,028.20

Trainer:

Associate Professor Teo Tang Wee, Associate Professor Tan Aik Ling, Mr Ng Yong Sim, Dr Ong Yann Shiou and Dr Timothy Tan

Target audience:

Secondary school teachers

Learning Dimension:

3 4 5

Registration:**OPAL**

(Code: 41385)



BACK
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INS2155 Teaching the Revised H3 Chemistry

This course is designed to equip participants with the required content knowledge for teaching the new topics in the revised H3 Chemistry syllabus (Molecular Orbital Theory, Fundamentals of Spectroscopy, Hammond Postulate, Bell-Evans-Polanyi Principle). Teaching/learning approaches and assessment questions for these topics will be touched on during the discussion of the content knowledge.

Duration:

7 hours

Dates:

27 November 2020

Time:

9.00am to 5.00pm

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$113.35

Non-MOE participants - \$450.40

Trainer:

Associate Professor Yan Yaw Kai

Target audience:

Junior College teachers

Learning Dimension:

2

Registration:**OPAL**

(Code: 41201)



AREAS OF LEARNING FOR CUSTOMISED WORKSHOPS



If you are interested in any of the workshops, please contact us for a discussion to customise the course(s) for your school/cluster. Our contact information is found on the back page of this course catalogue.

ICT0100 Introduction to Lesson Study

This course will introduce lesson study as an ongoing, teacher-led, professional learning process that will develop teachers' capacities and dispositions as they discuss curriculum and subject matter, pedagogy, assessment, student learning, and other related issues. Participants will explore the various stages of the lesson study cycle from unit and lesson planning (PLAN), research lesson implementation (DO), observation (SEE), post-research lesson discussion and refinements made to the research lesson (IMPROVE) vicariously through the use of video cases. The benefits and challenges in implementing lesson study will also be explored.

Duration:

7 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$75.90

Non-MOE participants - \$412.95

Trainer:

Faculty from the Policy, Curriculum and Leadership (PCL) Academic Group

Target audience:

All educators

ICT0102 Experiencing Lesson Study

This course provides the opportunity for teachers and school key personnel to experience a real live research lesson (RL) observation and post RL colloquium. Throughout this experience, participants will learn how to observe with a focus on student learning and be exposed to a variety of observation tools. They will discuss their observations in a post RL colloquium, supported by experienced faculty members of NIE and other resource persons as "knowledgeable others". This course is offered mainly as a school-based workshop but it can also be cluster-based with teachers and key personnel from different schools. As part of the workshop will involve observing a real live RL, the course facilitator will work with a team of teachers in crafting the RL. Arrangements for crafting the RL will be discussed further with the course facilitator.

Duration:

7 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$75.90

Non-MOE participants - \$412.95

Trainer:

Faculty from the Policy, Curriculum and Leadership (PCL) Academic Group

Target audience:

All educators

ICT0105 Equipping Facilitators for Lesson Study

This course provides the opportunity for teachers and school key personnel who are involved in facilitating and leading lesson study (LS) cycles in their own school, to clarify their conceptions and discuss how to continue with and sustain the LS journey. In this course, LS facilitators will discuss challenges of implementation of LS in their own school, and how to steer the discussion in a lesson study cycle. The depth of discussion in this course will depend on the questions raised from the experience of involvement in previous LC cycles by the participants. As such, this course will only benefit participants who have been involved in LS.

Duration:

7 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$75.90

Non-MOE participants - \$412.95

Trainer:

Faculty from the Policy, Curriculum and Leadership (PCL) Academic Group

Target audience:

All educators



DEVELOPING CURRICULUM CAPABILITIES OF TEACHERS

ICT0202 Differentiated Instruction for Diverse Learners

This course provides an overview of differentiated instruction (DI), and its basic principles and components. It aims to help participants develop an understanding of different learner needs and interests in the regular classroom. The teachers will explore the principles and practices of differentiated instruction and learn to cater to these needs using DI principles and strategies. As part of the course, participants will also adapt and differentiate activities/materials to meet varied learning needs and interests. Participants will analyse and discuss issues in implementation, as well as solutions to problems inherent in a differentiated classroom. The roles of teachers will be examined and possible challenges will also be discussed.

Duration:

7 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$75.90

Non-MOE participants - \$412.95

Trainer:

Faculty from the Policy, Curriculum and Leadership (PCL) Academic Group

Target audience:

All educators

IME1055 Differentiated Instruction for Primary Mathematics (1) – Number and Algebra Strand

This course will cover key aspects of differentiated instruction in terms of the rationale, curriculum and pedagogical approaches. The course will cover mathematical content from the numbers and algebra strand. Mathematical processes such as reasoning and communication will also be incorporated.

Duration:

6 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$65.20

Non-MOE participants - \$354.10

Trainer:

Dr Dawn Ng

Target audience:

Primary school teachers

Learning Dimension:

3

4

5



DEVELOPING ASSESSMENT CAPABILITIES OF TEACHERS

ICT0300 Assessment Literacy in the Primary/Secondary Classroom

This course helps primary/secondary teachers clarify their understanding of assessment, teaching and learning within the context of Singapore's 'Holistic Assessment'/'Balanced Assessment' aspiration. They should be able to develop an assessment plan with suitable emphasis on assessment for learning at the departmental or school-wide level to build coherence of formative and summative assessment practices.

Duration:

14 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$150.80

Non-MOE participants - \$824.90

Trainer:

Faculty from the Learning Sciences and Assessment (LSA) Academic Group

Target audience:

All educators

ICT0323 Student Self-Assessment: 5 Ws and 1 H

This Student Self-Assessment workshop hopes to provide teachers with a better understanding about student self-assessment (what) and its potential benefits to teachers and students (who and why). The workshop will look at how to set the stage for the implementation of self-assessment in the classroom (where), introduce a variety of self-assessment strategies (what and how) as well as discuss the issues and challenges of implementing student self-assessment (when and how). There will also be a hands-on session for teachers to work together to co-design self-assessment for their students' use.

Duration:

10 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$108.00

Non-MOE participants - \$589.50

Trainer:

Faculty from the Learning Sciences and Assessment (LSA) Academic Group

Target audience:

All educators

ICT0324 Nurturing Self-Regulated Learners through Assessment Practices

This workshop hopes to provide teachers with a better understanding of self-regulated learning (SRL). It will focus especially on shaping classroom assessment practices to nurture SRL, as well as discuss the complexities involved as. There will also be many hands-on opportunities for teachers to plan for application of course content in their lessons.

Duration:

10 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$108.00

Non-MOE participants - \$589.50

Trainer:

Faculty from the Learning Sciences and Assessment (LSA) Academic Group

Target audience:

All educators



ICT0325 Designing Quality Alternative Assessments and Associated Rubrics

There is a growing recognition that we need a variety of assessment types in schools. These different assessment methods will help bring balance to the emphasis on conventional paper-and-pen tests as well as cater to diverse student abilities and cover a wider range of learning outcomes. Careful consideration is therefore required in evaluating and selecting alternative assessments that can deliver on these intended outcomes. Frameworks for designing alternative assessments and rubrics will be presented in this course. Participants will also be introduced to the salient issues involved in such alternative assessments. At the end of the course, participants will be able to make informed choices based on fundamental assessment principles.

Duration:

10 hours

Trainer:

Faculty from the Learning Sciences and Assessment (LSA) Academic Group

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$108.00

Non-MOE participants - \$589.50

Target audience:

All educators

IEL1045 Grammar for Assessment (Primary)

This course aims to introduce participants to core prescriptive grammatical knowledge required in assessment papers. The course will be conducted through eight sessions (3 hours each). Participants will also be introduced to different grammar references, including Michael Swan's Practical English Usage, which is given to all schools and which they can utilise in the classroom.

By the end of the course, participants should be able to explain grammar questions/answers commonly found in assessment papers, using the knowledge gained in the course.

Duration:

24 hours

Trainer:

Faculty from the English Language and Literature (ELL) Academic Group

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$257.80

Non-MOE participants - \$1,413.40

Target audience:

Primary school teachers

IME2089 Problems in Real World Contexts: Design & Implementation

The use of problems in real-world contexts for teaching and learning has very much been in recent focus in Singapore schools and in international comparative studies such as PISA. Problems in real-world contexts are interesting platforms to showcase students' mathematical reasoning and communication. There are two parts to this course. The first part will discuss the different types of problems in real-world contexts involving differing degrees of open-endedness for teaching and learning purposes. The second part will focus on how a teacher could design and use PRWC tasks for assessment purposes according to the Singapore secondary school E-Math syllabus.

Duration:

6 hours

Trainer:

Dr Dawn Ng

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$65.20

Non-MOE participants - \$354.10

Target audience:

Secondary school teachers



IME2101 Problems in Real-World Contexts: Assessment of Mathematical Outcomes

It is important to provide opportunities for secondary school students to apply the mathematical content and skills they learn in solving problems situated in real-world contexts so as to foster mathematical literacy in the 21st century. Problems in real-world contexts (PRWC) were introduced at the “O” level mathematics examinations in 2016. This course focuses on the design of PRWC for assessment using examples from topics in the EMath syllabus. Design principles, the degree of open-endedness in a PRWC task, how mathematical reasoning is assessed will be discussed along with preparation of mark schemes.

Duration:
24 hours

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$257.80
Non-MOE participants - \$1,413.40

Trainer:
Dr Dawn Ng

Target audience:
Secondary school teachers

Learning Dimension:

3 4 5

INS2157 Assessment as Learning (AaL) in secondary science

Assessment as Learning (AaL) represents a highly desirable advance over Assessment for Learning (AfL) methods to improve student understanding. This is because AaL or self-assessment requires that learners take control and be in-charge of their own learning to a greater extent with long-term gains in knowledge and self-autonomy. This course will therefore provide an overview of AaL theory and introduce practical techniques for its implementation in local schools. It will also assist teachers to conduct simple action research to monitor teacher AaL facilitation as well as the learning outcomes of students.

Duration:
7 hours

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$113.35
Non-MOE participants - \$450.40

Trainer:
Faculty from the Natural Sciences and Science Education (NSSE) Academic Group

Target audience:
Secondary school teachers

Learning Dimension:

3



DEVELOPING THE PEDAGOGICAL REPERTOIRE OF TEACHERS

ICT0419 Dialogic Argumentation: Development of Thinking and Expository Writing

This course will introduce participants to the practice of dialogic argumentation. We explore the theory of how social argumentation mirrors individual thinking and is thus a productive path to developing 21st century dispositions and thinking values. The curriculum is a structured approach designed to help students debate broad issues represented by 2 opposing perspectives. Research evidence shows that repeated practice of dialogic argumentation improves students' expository essay writing, as expository essay writing requires a high level ability to integrate multiple perspectives and evidence. Participants will engage in dialogic argumentation with each other in order to better understand the argumentation process. Time will also be set aside for participants to discuss issues of implementation in the classroom.

Duration:

7 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$75.90

Non-MOE participants - \$412.95

Trainer:

Faculty from the Policy, Curriculum and Leadership (PCL) Academic Group

Target audience:

All educators

IEC4008 High Ability in Learners : Understanding and providing for them in the regular classroom

This course seeks to help teachers' gain a deeper understanding of high-ability learners (HALs), to develop an informed awareness of the learning needs of HALs; and begin to provide for the needs of highly able pupils in regular classrooms. Topics will include an overview of the cognitive and affective traits as well as learning needs of high-ability learners; conceptions of intelligence and giftedness; issues around the identification and assessment of learning potential; and the rationale for differentiated instruction; Participants will be acquainted with some methods of instructional modification and strategies for engaging learners with high ability and for enhancing their learning in mixed-ability settings.

Duration:

26 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$279.20

Non-MOE participants - \$1,531.10

Trainer:

Dr Letchmi Devi Ponnusamy

Target audience:

Primary and secondary school teachers

Learning Dimension:

4



IEL2087 Teaching Julius Caesar

This course will introduce dramatic, kinaesthetic, student-centred and writing strategies for introducing and teaching William Shakespeare's play Julius Caesar both stimulatingly and effectively to 'O' Level Literature students. You will learn how to help and facilitate your students in independently unpacking Shakespeare's colourful and originally rich language in illuminating ways; initially in discussion and other preparatory activities, and ultimately in genuine, informed and personally unique written responses to the 'O' Level question.

Duration:

7 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$75.90

Non-MOE participants - \$412.95

Trainer:

Faculty from the English Language and Literature (ELL) Academic Group

Target audience:

Secondary school teachers

Learning Dimension:

2 3 5

IEL2087 Teaching Julius Caesar

This course is for teachers who want to teach more poetry and gain more confidence and experience in reading, and in helping their students read and unpack all kinds of poems, from William Wordsworth's Daffodils to Alfian Sa'at's Void Deck. Positing that initial confusion and curiosity in encountering a poem (even in a teacher!) is a good, pedagogically authentic thing. The course will focus on modelling the process of first encountering and then gradually but steadily opening up the varied possible meanings and interpretations of a range of poems. The second half of the course will provide tips in piquing students' interest in poetry, and therefore improving their skills as readers, by choosing potentially exciting, relevant poetry, often surprisingly resonant with local students' lives and passions.

Duration:

7 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$75.90

Non-MOE participants - \$412.95

Trainer:

Faculty from the English Language and Literature (ELL) Academic Group

Target audience:

Secondary school teachers

Learning Dimension:

2 3 5

IEL2089 Teaching John Wyndham's The Midwich Cuckoos

This course will introduce strategies for introducing and teaching a new addition to the 'O' Level syllabus: John Wyndham's vintage English science fiction novel The Midwich Cuckoos. These stimulating kinaesthetic student-centred, context and discussion-based activities will help students respond informedly, personally, perceptively and uniquely to Wyndham's novel; and help to focus students' answers when responding to 'O' Level examination questions on the text.

Duration:

7 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$75.90

Non-MOE participants - \$412.95

Trainer:

Faculty from the English Language and Literature (ELL) Academic Group

Target audience:

Secondary school teachers

Learning Dimension:

2 3 5



IER0007 Designing and Assessing Students' Digital Storytelling

Emerging new media (e.g., mobile and web-based interactive platforms for creating, sharing, discussing and modifying user-generated content), and the rapidly changing needs and capabilities of students, place rising demands on educators to rethink their classroom practices. But how can we understand and draw on the presence of digital technologies for contemporary meaning-making and communication using a variety of representational formats (e.g., writing, images, gestures and sounds)? Based on the long-standing use of stories in societies and cultures to inform, educate and entertain; this in-service course explores the ground between new media and teaching through a hands-on consideration of the potentials of subject- or topic-based digital storytelling by students.

Duration:

21 hours

Trainer:

Dr Phillip A. Towndrow

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$225.70

Non-MOE participants - \$1,236.85

Target audience:

All educators teaching Secondary and Junior College levels

Learning Dimension:

2

3

ILS0008 Technological Pedagogical Content Knowledge for ICT Lesson Design

Integrating ICT into teaching and learning is a complex endeavour that requires careful consideration of technology and pedagogy. Recently, the emergence of the technological pedagogical content knowledge (TPACK) framework has unpacked the types of knowledge that teachers/ instructors needed in order to enhance learning with ICT. This course equips teachers with the basic knowledge of the TPACK framework. It engages the teachers to review their lessons and ICT-based learning resources and facilitate the design of ICT lessons through the TPACK framework. At the end of the course, it is hoped that the participants are more able to draw from various sources of knowledge to create ICT integrated lesson at a higher level.

Duration:

8 hours

Trainer:

Faculty from the Learning Sciences and Assessment (LSA) Academic Group

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$86.60

Non-MOE participants - \$471.80

Target audience:

All educators

Learning Dimension:

3

4

ILS0015 Designing Lesson with 3D Printing Technology

With the advancement and affordability of 3D printing technology, classroom teachers can now use this technology and apply it to classroom teaching. 3D printing changes students' role and disposition from one that is teacher directed towards becoming self-directed and independent learners. Teachers can leverage the affordances of 3D printing into designing a lesson that engages students in exploring, designing and share new and innovative ideas.

Duration:

8 hours

Trainer:

Mr Liang Hong Poh

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$86.60

Non-MOE participants - \$471.80

Target audience:

All educators

Learning Dimension:

3

4



BACK
TO TOP

ILS0016 Designing 21st Century Quality Learning (21QL) Using LEGO EV3

Using robotic technology in classroom teaching, allows and encourages students to be creative and innovative. It also allows them to learn actively in different authentic scenarios. The collaborative learning processes demand that students constantly monitor their actions and decisions. Their reflection on their decisions will help them reach quality solutions. Teachers can leverage the affordances of LEGO EV3 into designing 21QL lessons that engage students to think innovatively and create valuable knowledge to address authentic problems and challenges of today's world.

Duration:
8 hours

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$86.60
Non-MOE participants - \$471.80

Trainer:
Mr Liang Hong Poh

Target audience:
All educators

Learning Dimension:

3 4

ILS0017 Using and Creating Video for Student Learning

In this new information age, many schools and institutions extensively utilise videos in training and education courses. Videos are also key to the success of blended learning and flip teaching. This short course illustrates the strengths and limitations of both audio and video media. The different genres of video will also be discussed. This course discusses how and when to use video and includes practice on how to create a video for flipped teaching using mobile phones, PowerPoint Mix and IPADS.

Duration:
8 hours

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$86.60
Non-MOE participants - \$471.80

Trainer:
Dr Teo Yiong Hwee

Target audience:
All educators

Learning Dimension:

3 4

ILS0018 Play, with ICT!

What is your vision of a future classroom? What is your vision of an ideal classroom? If you think it should be fun, engaging, and where meaningful learning takes place, join us in exploring the utilisation of ICT platforms to break the monotony of classroom teaching and learning. Gain insights on the affordances of various tools and share your perspectives on how teachers can better facilitate students' learning. Have fun trying, experiencing, and creating ICT resources; and translate these practices into your classroom.

Duration:
3 hours

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$33.10
Non-MOE participants - \$177.55

Trainer:
Mr Louis Quek Wee Kwan

Target audience:
All educators

Learning Dimension:

3



ILS0019 Flip Your Lessons for Meaningful and Differentiated Learning

Flipped learning pedagogy is gaining traction with teachers and students across the globe because of its potential to redefine the whole enterprise of teaching and learning thanks to the new possibilities afforded by rapidly evolving technologies. Proponents of flipped learning cite increased learner engagement, more timely feedback, and deeper and more meaningful learning due to better use of curriculum time. If you have heard your colleagues talk about flipping their lessons and wondered what it is and how to go about flipping your own lessons, this is the right workshop for you.

Duration:

8 hours

Trainer:

Mr Tsering Wangyal

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$86.60

Non-MOE participants - \$471.80

Target audience:

All educators

Learning Dimension:

3

4

ILS0020 Designing Student Online Collaboration Supported by Social Media Tools

With the ever-growing availability of social media tools, classroom teachers can leverage on tools such as messages, voice, images and shared resources to engage students in exploring new ways to communicate with peers in purposeful online collaborative projects. To facilitate students' learning in collaborating effectively in small groups and across different cultural settings, the choice of social media tools, the instructional strategies and the quality of collaborative learning require thoughtful designing and implementing.

Duration:

8 hours

Trainer:

Mr Tsering Wangyal

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$86.60

Non-MOE participants - \$471.80

Target audience:

All educators

Learning Dimension:

3

4

ILS0021 Exploring the use of technology in classroom assessments

The availability of online tools offers opportunities for educators to tap into the potential of technology in classroom assessments. If you have not used any common online tools for assessments before but would like to explore how to do so, this course is for you. This course will introduce participants to common online tools that can be incorporated into classroom teaching and learning. In this introductory course, participants will explore the basic features of online tools and deliberate on the potential and challenges of using such tools in classroom assessments.

Duration:

8 hours

Trainer:

Dr Connie Ng

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$86.60

Non-MOE participants - \$471.80

Target audience:

Teachers with no experience using any online tools for classroom assessment

Learning Dimension:

3

4



ILS1002 Supporting Self-Directed and Collaborative Learning with ICT

Participants will be introduced to the key concepts of self-directed and collaborative learning. These concepts will be explored through worked examples. Participants can expect to work in groups to design tasks that incorporate self-directed and collaborative learning for teaching and learning. Discussions on issues relating to lesson design, facilitation and use of ICT to support self-directed and collaborative will also be raised in the course.

Duration:

8 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$86.60

Non-MOE participants - \$471.80

Trainer:

Faculty from the Learning Sciences and Assessment (LSA) Academic Group

Target audience:

All educators

Learning Dimension:

3

4

IME1028 Error Analysis and Remediation

Not all mistakes are careless mistakes. The mistakes made by children may be symptomatic of some underlying misconceptions. Such errors are defined as systematic errors. Unless teachers understand why children make such mistakes, re-teaching the concept would not be helpful to these children. In this course, examples of systematic errors involving counting, whole numbers and the four operations are analysed to understand why children make such errors.

Duration:

12 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Dr Ng Swee Fong

Target audience:

Open to any individual who wishes to understand why primary children make the errors with the four operations and help them

Learning Dimension:

3

4

IME1032 School-based Mathematics Curriculum Development

This course provides experienced primary mathematics teachers with the knowledge and skills needed to plan, implement and evaluate mathematics curriculum innovations at the school level.

Duration:

24 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$257.80

Non-MOE participants - \$1,413.40

Trainer:

Associate Professor Lee Ngan Hoe

Target audience:

Primary school Mathematics teachers

Learning Dimension:

3

4



IME1035 The Use of Games in the Teaching and Learning of Primary Mathematics

Working memory has been found to be an important factor in helping children learn mathematics. There are a number of games specially designed around specific mathematics concepts to help children improve their working memory and at the same time enhance their mathematical reasoning skills, their visual and spatial orientation. In this course, teachers would be introduced to a range of such games.

Duration:

12 hours

Trainer:

Dr Ng Swee Fong

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Target audience:

Primary school Mathematics teachers

Learning Dimension:

3

4

IME1042 Challenging Mathematically Able Lower Primary Pupils

Like the pupils in the Learning Support Mathematics (LSM) programme, mathematically able pupils in the standard classroom are also at risk of underperforming in school. These pupils need to be exposed to an adequately challenging learning environment. The course explores some strategies and learning activities that teachers can adopt to cater to the needs of these pupils.

Duration:

12 hours

Trainer:

Dr Joseph Yeo Kai Kow

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Target audience:

Primary school teachers

Learning Dimension:

3

4

IME1043 Using Children's Literature to Promote Learning of Lower Primary Mathematics

Children like reading stories. One way to engage children in learning mathematics is to integrate children's literature into their mathematics lessons. This course examines how children's literature can be used as a vehicle for designing activities to help children learn mathematics and develop their process skills in mathematics.

Duration:

12 hours

Trainer:

Dr Cheng Lu Pien

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Target audience:

Primary school Mathematics teachers

Learning Dimension:

3

4



IME1048 Making Thinking Visible in Primary Mathematics

This course will focus on different strategies to promote mathematical thinking and reasoning in the primary mathematics classrooms.

Duration:
3 hours

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$65.20
Non-MOE participants - \$354.10

Trainer:
Dr Cheng Lu Pien

Target audience:
Primary school teachers

Learning Dimension:

3 4

IME1051 Holistic Approach for Developing Mathematical Understanding

The course aims to equip educators with a holistic approach for developing mathematical understanding. The course will draw on the S(skills), P(properties), U(uses) and R(representations) framework and engage participants in crafting mathematical tasks for nurturing primary school pupils' understanding of mathematics.

Duration:
12 hours

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$129.40
Non-MOE participants - \$707.20

Trainer:
Professor Berinderjeet Kaur

Target audience:
Primary school teachers

Learning Dimension:

3 4

IME1052 Strategies To Engage Primary School Pupils In Reasoning and Communication

SPUR (S-skills, P-properties, U-uses, R-representations) is a multi-dimensional framework for assessing understanding of mathematics. The course will ensure that students have a robust understanding of how mathematics assessment tasks should assess Skills, Properties, Uses and Representations of the knowledge they acquire. This course will introduce participants to the framework and provide them with the knowledge and skills to use in their classroom instruction.

Duration:
12 hours

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$129.40
Non-MOE participants - \$707.20

Trainer:
Professor Berinderjeet Kaur

Target audience:
Primary school teachers

Learning Dimension:

3



IME1054 Designing Tasks to Foster Mathematical Reasoning

This course will focus on task design principles to design meaningful and engaging tasks for primary mathematics classrooms. In particular, the selection, design and implementation of examples and tasks to foster mathematical reasoning in the primary mathematics classrooms will be discussed. Links will also be made with the Singapore Mathematics curriculum for participants to think more critically on how those tasks achieve curriculum objectives.

Duration:

3 hours

Trainer:

Dr Cheng Lu Pien

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$33.10

Non-MOE participants - \$177.55

Target audience:

Primary school teachers

Learning Dimension:

3

4

IME2079 Using the SPUR Framework to Assess Secondary Pupil Understanding in Mathematics

SPUR (S-skills, P-properties, U-uses, R-representations) is a multi-dimensional framework for assessing understanding of mathematics. The course will ensure that students have a robust understanding of how mathematics assessment tasks should assess Skills, Properties, Uses and Representations of the knowledge they acquire. This course will introduce participants to the framework and provide them with the knowledge and skills to use in their classroom instruction.

Duration:

12 hours

Trainer:

Professor Berinderjeet Kaur

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Target audience:

Secondary school Mathematics teachers

Learning Dimension:

3

IME2090 Engaging the Minds and Hearts of Mathematics Learners

This course will prepare secondary school teachers to put into practice various strategies to engage students actively in their minds and hearts when learning mathematics. It will guide teachers to search for resources or to develop their own materials, such as guided-discovery worksheets (with or without the use of concrete manipulatives and / or ICT), catchy maths songs, amusing maths videos, witty comics, intriguing maths puzzles and games, fascinating magic tricks, inspiring stories of famous mathematicians, celebration of important maths days and years, and interesting real-life examples and applications.

Duration:

12 hours

Trainer:

Dr Joseph Yeo Boon Woei

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Target audience:

Secondary school teachers

Learning Dimension:

3



IME2102 Crafting and Facilitating Mathematical Problems in Real-World Contexts

This course will equip secondary school mathematics teachers in crafting and facilitating Problems in Real-World Contexts (PRWC) for O-level and N(A)-level exams. The participants will be introduced to the Really MAD framework (Yeo, Choy, Ng & Ho, 2018) consisting of four design principles: Realistic Principle, Mathematical Principle, Activity Principle and Documentation Principle. In addition, they will be guided through some practical steps on how to incorporate the Really MAD framework in the design of the PRWC. Lastly, they will learn how to facilitate PRWC in the classroom and how to guide students to solve PRWC.

Duration:
6 hours

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$65.20
Non-MOE participants - \$354.10

Trainer:
Dr Joseph Yeo Boon Wooi

Target audience:
Secondary school Express and Normal Academic teachers

Learning Dimension:

3 4

The Problem Wheel – A metacognitive approach to “kickstart” students’ mathematical problem solving

This course is to provide primary mathematics teachers with a metacognitive means to “kickstart” the problem-solving process in primary mathematics students.

Duration:
12 hours

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$129.40
Non-MOE participants - \$707.20

Trainer:
Associate Professor Lee Ngan Hoe

Target audience:
Primary school Mathematics teachers

Learning Dimension:

3

INS2104 Pollution Experiments Using Ecotoxicology Biomarkers for Schools

This course combines project-based learning that integrates biology and chemistry in experimental field studies on ecotoxicology, and collaboration with a Singapore government agency (NParks) in a citizen science programme. Participants (teachers with their pupils) will experience the rigour of content-based research through authentic experimental protocols used in field bio-monitoring associated with environmental health indicators.

Duration:
24 hours

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$257.80
Non-MOE participants - \$1,413.40

Trainer:
Dr Beverly Goh and Dr Tan Lik Tong

Target audience:
Junior College and Secondary school teachers

Learning Dimension:

3 4 5 7



IPE0026 Coaching Children in Sports

This course is designed to equip coaches and teachers with the necessary skills and knowledge in dealing with children who are involved in recreation and developmental sports. This course provides an introduction to the theory of coaching and learning in the school sports setting and will cover various aspects relating to effective coaching of children for training and competition. The course will have a mix of practical and theoretical aspects to equip coaches and teachers the necessary skills for developing basic knowledge and skills for coaching children involved in sports.

Duration:

20 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$215.00

Non-MOE participants - \$1,178.00

Trainer:

Associate Professor Koh Koon Teck

Target audience:

Primary school coaches and teachers

Learning Dimension:

3

4

IPE0027 Coaching Youths in Sports

This course is designed to equip coaches and teachers with the necessary skills and knowledge in dealing with young athletes who are involved in recreation and developmental sports in schools. This course provides an introduction to the theory of coaching and learning in a school sports setting. It covers various aspects relating to effective coaching of young athletes for training and competition. The course will have a mix of practical and theoretical aspects to equip coaches and teachers with the necessary skills for developing basic knowledge and skills to deal with young athletes effectively in sports.

Duration:

20 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$215.00

Non-MOE participants - \$1,178.00

Trainer:

Associate Professor Koh Koon Teck

Target audience:

Secondary school and Junior College coaches and teachers

Learning Dimension:

3

4



ENHANCING THE PROFESSIONALISM OF TEACHERS

ILS0001 Classroom Management

Using small group discussions, facilitated by school practitioners, and a case study approach; this full-day course serves to equip primary/secondary/Junior College teachers with the principles of classroom management and knowledge of a range of strategies to manage their classrooms to bring about effective learning. Teachers will also gain awareness on how positive Teacher-Student Relationship (TSR) can help them with classroom management. Teachers' classroom cases are also used for collaborative problem-solving, discussion and presentations.

Duration:

7 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$75.90

Non-MOE participants - \$412.95

Trainer:

Faculty from the Learning Sciences and Assessment (LSA) Academic Group

Target audience:

All educators

Learning Dimension:

3 4

IPL0012 Teacher Leadership for Effective PLC Facilitation

Professional Learning Communities (PLCs) have become increasingly popular in the local education scene. This is not surprising bearing in mind that PLCs, when done right, has the potential to increase the collective capacity of school organisations. At a more microscopic level, PLCs have immense potential to bring about the development of teacher knowledge, and thus having an impact on improvements in teacher teaching practice, student learning, and student learning outcomes. However, this sequence of school improvement is very much dependent on the quality of teacher learning that takes place in PLCs. Just as the quality of teacher learning can vary from one mentoring relationship to another and from one workshop to another, the quality of teacher learning in PLCs will expectedly vary from one PLC to another. PLCs, like any other group situation, are and cannot be devoid of leadership – in this case, teacher leadership, given that the members of PLCs usually and predominantly consist of teachers. The quality of teacher learning is therefore reliant on the quality of teacher leadership. This assertion, however, begs further questions. Who are the potential candidates for teacher leaders in PLCs? What are the knowledge, skills and disposition that teacher leaders ought to have? How are they to be developed? The series of workshops planned for this course seek to provide the learning spaces for potential teacher leaders to hone in and sharpen their knowledge, skills and disposition on teacher leadership to bring about positive teacher learning in PLCs. By the end of the course, teacher leaders will be able to: 1) Articulate the key features of PLCs, 2) Identify the key characteristics of teacher leadership, 3) Unpack the effects of teacher leadership in PLCs on teacher knowledge, teacher teaching practice, student learning, and student learning outcomes, 4) Outline and demonstrate the concepts and principles of teacher leadership in PLCs, 5) Specific and demonstrate the 3 stages of PLC participation, 6) Articulate and demonstrate the 5 PLC conversation questions, 7) Enunciate and demonstrate the 7 PLC conversation activities. The modes of learning include lecture, group discussions, demonstrations, exemplars, and simulations.

Duration:

12 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Assistant Professor Hairon Salleh

Target audience:

All educators

Learning Dimension:

3 4



BACK
TO TOP

IME2073 Enhancing deeper understanding of calculus and students' difficulties

We will have interactive discussions of some main calculus concepts and the concerns we have in teaching calculus. Students' common errors found in some past Cambridge exam papers will be highlighted as well.

Duration:

12 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Associate Professor Toh Tin Lam

Target audience:

Secondary school and Junior College teachers

Learning Dimension:

3

IME1041 Strategies to Teach Primary 1 to Primary 3 Low Progress Pupils to Solve Mathematical Process Problems

Process problems require pupils to develop general strategies for understanding, planning, solving problems as well as evaluating possible solutions. Process problems can be presented as word problems. This course will provide Primary 1 to Primary 3 mathematics teachers with the necessary knowledge and skills for teaching problem-solving in the mathematics classroom. Teachers will identify the factors that contribute to low-progress learners' difficulties in mathematical problem solving. Teachers will also be led through the various strategies to help low-progress pupils solve process problems. As part of the course, teachers will also adapt and design process problems/tasks to meet varied learning needs and interests as well as evaluate the effectiveness of these. Problem-solving frameworks and checklists to help low-progress pupils solve mathematical problems will also be shared and discussed.

Duration:

12 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Dr Joseph Yeo Kai Kow

Target audience:

Primary school teachers

Learning Dimension:

4



IME2076 What has elementary number theory got to do with school arithmetic?

Arithmetic is the very first topic covered in secondary one mathematics. Students learn about factors, primes, prime factorisation, highest common factor and lowest common multiple. One application of prime factorisation is finding square roots and cube roots of whole numbers. For example, to find the square root of 2025, we express 2025 as a product of primes $3^2 \times 5^2$, from which we obtain the answer $3 \times 5 = 15$. On the other hand, the square root of 200 is not a whole number because $200 = 2^3 \times 5^2$ and the power of 2, which is 3, is odd. In contrast, we cannot say that the square root of $324 = 2^2 \times 3^4$ is not a whole number because the power of 27 is odd. Of course, we argue that we cannot make this conclusion because 27×12 is not a prime factorisation of 324. So what is so special about prime numbers? Why do we have to write a whole number N in prime factorisation form to determine conclusively whether the square root of N is a whole number or not? In this course, we shall discuss the mathematical principle behind this, and also explain why the algorithm for finding HCF and LCM using prime factorisation works.

We shall also touch on the representation of real numbers in decimals. What is the difference between rational and irrational numbers written in decimals? How do we know whether a fraction m/n written in decimal is terminating or non-terminating ($2/5 = 0.4$ is terminating, $2/3 = 0.666\dots$ is non-terminating)? These questions can be answered using elementary number theory.

We will also discuss some real-life applications of number theory; for example, how is the official reference of NRIC No., or the ISBN of books, obtained? We shall share some interesting mathematical puzzles involving number theory. For example, can you get four gallons of water using five and three gallon jugs with no markings? (In the movie "Die Hard 3", John McClain (played by Bruce Willis) and Zensus (played by Samuel L. Jackson) have to solve this puzzle posed by the villain Peter Krieg (played by Jeremy Irons) in order to defuse a bomb. Had the villain asked them to get four gallons using three and six gallons jugs, would they be able to solve it?)

Duration:

9 hours

Trainer:

Dr Teo Kok Ming

Course fee for:

(includes 7% GST and \$1 copyright fee)
 MOE participants - \$97.30
 Non-MOE participants - \$530.65

Target audience:

Secondary school Mathematics teachers

Learning Dimension:

3

IME1025 Designing Learning Activities that Integrate Learning Experiences in Primary 1 and Primary 2 Mathematics

This course focuses on ways to integrate learning experiences to engage lower primary pupils in learning mathematics. Participants will examine the use of various resources and instructional strategies that promote sense-making and reasoning among young children.

Duration:

12 hours

Trainer:

Faculty from the Mathematics and Mathematics Education (MME) Academic Group

Course fee for:

(includes 7% GST and \$1 copyright fee)
 MOE participants - \$129.40
 Non-MOE participants - \$707.20

Target audience:

Primary school teachers

Learning Dimension:

3



IME1036 Designing Learning Activities that Integrate Learning Experiences in Primary 3 and Primary 4 Mathematics

Learning involves pupils actively engaged in the construction of knowledge, that is, to be hands-on and minds on. This workshop shows teachers how to design teaching and learning activities that incorporate Learning Experiences (LE) that will engage pupils in the mathematics classroom and support the implementation of the new mathematics curriculum.

Duration:

12 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40
Non-MOE participants - \$707.20

Trainer:

Faculty from the Mathematics and Mathematics Education (MME) Academic Group

Target audience:

Primary school teachers

Learning Dimension:

3

IME1037 Formative Assessment in Primary Mathematics: Effective Implementation and Practice

The focus of this course is on how to develop formative assessment tasks as part of teaching and learning in primary mathematics classrooms.

Duration:

12 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40
Non-MOE participants - \$707.20

Trainer:

Faculty from the Mathematics and Mathematics Education (MME) Academic Group

Target audience:

Primary school Mathematics teachers

Learning Dimension:

3

IME1040 Promoting Metacognition in Primary School Children

The focus of this course is to equip teachers with approaches to address metacognition in the primary mathematics classroom.

Duration:

12 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40
Non-MOE participants - \$707.20

Trainer:

Faculty from the Mathematics and Mathematics Education (MME) Academic Group

Target audience:

Primary school teachers

Learning Dimension:

3



IME1061 Inquiry-Based Learning for Primary Mathematics (1) – Number and Algebra Strand

This course will cover key aspects of inquiry-based learning in terms of the rationale and inquiry processes that contribute to habits of mind for inquiry, curriculum and pedagogical approaches. The course will focus on mathematical content from the numbers and algebra strand.

Duration:

6 hours

Trainer:

Dr Cheng Lu Pien

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$65.20

Non-MOE participants - \$354.10

Target audience:

Primary school teachers

Learning Dimension:

3

4

5

IME1062 Teaching Children To Recognise Patterns Through Inquiry-based Learning

Pattern generalising tasks are a common feature under problem solving at the primary school level. However, detecting pattern structure is often very elusive for many young children, with many of them failing to navigate this process successfully. This course introduces participants to the different types of pattern generalising tasks in the primary mathematics curriculum, and the various strategies to recognise the pattern structure through inquiry.

By the end of the course, participants should be able to explain grammar questions/answers commonly found in assessment papers, using the knowledge gained in the course.

Duration:

9 hours

Trainer:

Assistant Professor Chua Boon Liang

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$97.30

Non-MOE participants - \$530.65

Target audience:

Primary school teachers

Learning Dimension:

3

IME1064 Mathematical Problem Solving for Upper Primary Students

Mathematical problem solving is the central focus of the mathematics framework for the Singapore Mathematics Curriculum. In this course, participants will learn about the use of the heuristics and thinking skills recommended in the Singapore Primary Mathematics Curriculum in solving challenging problems. The teaching of problem solving heuristics and thinking skills at upper primary levels will also be discussed.

Duration:

9 hours

Trainer:

Dr Ng Wee Leng

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$97.30

Non-MOE participants - \$530.65

Target audience:

Primary school teachers

Learning Dimension:

3



IME2081 Teaching H2 Further Mathematics: Applications of Integration and Numerical Methods

This course focuses on content knowledge related to the teaching of applications of integration and numerical methods in H2 Further Mathematics.

Duration:

12 hours

Trainer:

Associate Professor Ho Weng Kin

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Target audience:

Junior College teachers

Learning Dimension:

3

IME2084 Teaching H2 Further Mathematics: Matrices and Linear Spaces

This course is a review of some topics in linear algebra that are relevant to the H2 Further Mathematics topics on matrices and linear spaces.

Duration:

15 hours

Trainer:

Dr Teo Kok Ming

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$161.50

Non-MOE participants - \$883.75

Target audience:

Junior College teachers

Learning Dimension:

3

IME2055 Metacognition in the Mathematics Classroom

The aim of this course is to extend teachers' knowledge and understanding of the development of fractions. This course also assists teachers in developing lessons on fractions using innovative approaches that promote thinking.

Duration:

15 hours

Trainer:

Faculty from the Mathematics and Mathematics Education (MME) Academic Group

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$161.50

Non-MOE participants - \$883.75

Target audience:

Secondary school Mathematics teachers

Learning Dimension:

2

3

4



IME2051 Activity-Based Lessons for Low Ability Pupils in the Lower Secondary Mathematics Classroom

This course provides an opportunity for the lower secondary mathematics teachers to understand the principles and rationale of using activity-based lessons in teaching and learning. This course will also assist lower secondary mathematics teachers to examine the techniques and processes of conducting activity-based lessons for their lowability pupils. Teachers will also learn how to use manipulatives to help low-ability pupils understands mathematics concepts. Participants will revisit Concrete-Pictorial-Abstract (or C-P-A) approach to design activity-based lessons, including those for concept development and consolidation. Course participants are expected to participate in critical discussions pertaining to the various activities and through the process develop a deeper appreciation and greater insights into how low-ability pupils learn.

Duration:
12 hours

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$129.40
Non-MOE participants - \$707.20

Trainer:
Dr Joseph Yeo Kai Kow

Target audience:
Secondary school teachers

Learning Dimension:

4

IME2053 Strategies for Teaching Mathematical Generalisation

Generalising is an important skill with many applications in the learning of mathematics. Yet it is often undervalued by mathematics teachers. This course introduces participants to the various types of pattern tasks and the different strategies of expressing generality in the topic of Number Patterns in the mathematics syllabus.

Duration:
12 hours

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$129.40
Non-MOE participants - \$707.20

Trainer:
Assistant Professor Chua Boon Liang

Target audience:
Primary and Secondary school teachers

Learning Dimension:

3

4

IME2103 Strategies to Engage Secondary School Students in Reasoning and Communication

The course aims to equip educators with simple but effective strategies they may use to engage students in reasoning and communication. The course will engage participants in designing mathematical tasks and creating learning environments that nurture students' articulation of their mathematical thinking and knowledge.

Duration:
12 hours

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$129.40
Non-MOE participants - \$707.20

Trainer:
Professor Berinderjeet Kaur

Target audience:
All educators

Learning Dimension:

3

4



IME2104 The Art of Sequencing Mathematical Examples

The teachers' practice of presenting students with a list of mathematical examples to work on has a longstanding tradition and it is still common in classrooms all over the world. Is there an effective way to sequence these examples so that students are more likely to attain to the goals teachers intend? In this course, we answer this question not just based on theoretical grounds; we will also draw upon local research that maps how competent Singapore teachers design such example sequences.

Duration:

6 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$65.20

Non-MOE participants - \$354.10

Trainer:

Associate Professor Leong Yew Hoong

Target audience:

Secondary school teachers

Learning Dimension:

3

IME2105 Creating Mathematically Powerful Classrooms

The course aims to equip educators with a five-dimensional framework that facilitates the creation of activities that nurture mathematically powerful classrooms. The course will engage participants in examining the content and cognitive demand of mathematical tasks, and classroom discourse of their lessons. Following which participants will create/design activities that facilitate learning in mathematically powerful classrooms.

Duration:

12 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Professor Berinderjeet Kaur

Target audience:

All educators

Learning Dimension:

3

4

IME2066 Effective Questioning and Facilitation Techniques for Secondary/ Polytechnics/ ITE Mathematics Educators

This course is designed for secondary mathematics teachers who wish to enhance their repertoire on the effective use of questioning and facilitation practices in the teaching of mathematics. It will engage the participants in analysing their current questioning and facilitation practices and trialing "new" techniques based on the Singapore mathematics curriculum framework. They will share their experiences during face-to-face sessions.

Duration:

12 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Faculty from the Mathematics and Mathematics Education (MME) Academic Group

Target audience:

Secondary school Mathematics teachers

Learning Dimension:

3



IME2096 Design Capacity for Mathematics Replacement Units

This is NOT a course – at least, it does not fit into the conventional image of “attending a course”. In these mixed-purpose sessions, we cut through ‘the layers’ by going straight to the challenges of actual mathematics instruction – we design materials that will help our students learn better. In the process, we will learn more about mathematics, our students, and design.

Duration:

12 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Associate Professor Leong Yew Hoong

Target audience:

Secondary school Mathematics teachers

Learning Dimension:

3

4

IME1047 Fractions: Promoting Connections and Deep Learning

This course will focus on different strategies to promote connections and deep learning for fractions in the primary mathematics classrooms. Participants in this course will be actively engaged in the selection, design and critical reflection of mathematical tasks that cultivate mathematical reasoning and thinking for fractions.

Duration:

12 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Dr Cheng Lu Pien

Target audience:

Primary school Mathematics teachers

Learning Dimension:

3

4

IME1044 Designing Learning Activities that Integrate Learning Experiences in Primary 5 & Primary 6 Mathematics

This course will focus on using a range of activities that are meaningful and engaging for teaching mathematics in the primary 5 and 6 classroom. Participants in this course will engage in a variety of hands-on activities that can be used as learning experiences in their mathematics classrooms. Links will be made with the Singapore mathematics curriculum for participants to think more critically how those activities achieve curriculum objectives.

Duration:

12 hours

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Trainer:

Dr Cheng Lu Pien

Target audience:

Primary school Mathematics teachers

Learning Dimension:

3

4



IME1045 Teaching and Learning of Measurement at Lower Primary: Teaching Towards Big Idea About Measure

The course aims to increase teachers' pedagogical content knowledge for the teaching of Measurement at the lower primary levels. Principles of measurement and measurement concepts at the lower primary levels involving length, mass, area, and volume are covered. The discussion will also be viewed from the perspective of teaching towards the big idea measure. Related activities and teaching strategies will be also be examined.

Duration:

24 hours

Trainer:

Associate Professor Lee Ngan Hoe

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$257.80

Non-MOE participants - \$1,413.40

Target audience:

Primary school teachers

Learning Dimension:

3

4

IME2036 Algebra in Secondary Additional Mathematics

This course offers participants an opportunity to deepen their mathematical content knowledge in Algebra in the Additional Mathematics Syllabus. Focusing on topics such as Indices and logarithms, Quadratic equations and inequalities, Binomial theorem, and Partial Fractions, the course is particularly suitable for (i) mathematics teachers doing content upgrading, especially those who were from PGDE (Lower Sec) and targeting to acquire knowledge and latest development in Add Math Algebra, (b) in-service teachers new to teaching Add Math and wishing to acquire a better understanding of the algebra topics, and (c) in-service teachers who are teaching Add Math and hoping to see different approaches to deal with different Algebra content in the Add Math syllabus.

Duration:

12 hours

Trainer:

Assistant Professor Chua Boon Liang

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$129.40

Non-MOE participants - \$707.20

Target audience:

Secondary school Mathematics teachers

Learning Dimension:

3

4

INS2134 Science Inquiry-Based Learning

This is a school-based in-service course customized specifically to update science teachers at a secondary school on the development of inquiry-based instructional strategies (including assessment-related learning activities) and student-centric learning activities. Participants will be introduced to various science inquiry-based learning approaches and also be involved in various inquiry-learning activities, including using and crafting science learning tasks and assessment items to engage students in inquiry learning of the various science concepts and process skills described in the latest science curriculum.

Duration:

6 hours

Trainer:

Faculty from the Natural Sciences and Science Education (NSSE) Academic Group

Course fee for:

(includes 7% GST and \$1 copyright fee)

MOE participants - \$97.30

Non-MOE participants - \$386.20

Target audience:

Secondary school teachers

Learning Dimension:

3

4



BACK
TO TOP

IPE0025 Sports Injury: Prevention and Management (for PE and Sports CCA Teachers)

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

Duration:
20 hours

Trainer:
Assistant Professor Swarup Mukherjee

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$215.00
Non-MOE participants - \$1,178.00

Target audience:
Trained PE teachers

Learning Dimension:

3

IPE0028 Psychological Preparation for Athletes in Sports

This course helps coaches and teachers become more knowledgeable in terms of the mental demands of sports in competition. This course also provides an introduction to applied sport psychology in the school setting. This course introduces various mental skills for training to help athletes in training and competition. A mix of practical and theoretical aspects of this course will equip coaches and teachers with the necessary skills for developing basic mental skills training for athletes.

Duration:
20 hours

Trainer:
Dr Zason Chian Lit Khoon

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$215.00
Non-MOE participants - \$1,178.00

Target audience:
Coaches and teachers

Learning Dimension:

3

IPE0037 Strength and Conditioning (for PE and Sports CCA teachers)

This course is designed to equip participants with research-based knowledge of strength and conditioning and how it can help improve physical fitness, and performance in sports for students and student-athletes. Participants will be taught to design a specific "Strength and Conditioning" training plan using the knowledge in training principles, exercise physiology, plyometric, speed and agility.

Duration:
20 hours

Trainer:
Mr Mohammed Azhar Bin Yusof

Course fee for:
(includes 7% GST and \$1 copyright fee)
MOE participants - \$215.00
Non-MOE participants - \$1,178.00

Target audience:
PE and sports CCA teachers

Learning Dimension:

3



EXAMPLES OF CUSTOMISED SCHOOL-BASED WORKSHOPS IN 2019

Course Code	Course Title	Duration (Hours)	School/Cluster
ICT0202	Differentiated Instruction for Diverse Learners	7	Punggol Primary School
ICT0340	Developing analysis and evaluation skills through project work	3	Nanyang Junior College
ICT0337	Assessment Leadership Needed to Develop Practices for Nurturing Self-Regulated Learners	6	Mayflower Primary School
ICT0343	Enacting Effective Assessment Feedback Practices	3	Juying Secondary School
ICT0102	Experiencing Lesson Study	6	North View Primary School
ICT0342	Fundamentals of Effective Assessment Feedback Practices	3	Singapore Chinese Girls' School (Secondary)
IEL2091	Managing the School Library: The Practical Aspects	8	Hwa Chong Institution (High School)
IEL2094	Information/ Research Literacy: The Role of the Library	8	CHIJ St Nicholas Girls' School
ILS0019	Flip Your Lessons for Meaningful and Differentiated Learning	5	Singapore Sports School
IME1036	Designing Learning Activities that Integrate Learning Experiences In Primary 3 and Primary 4 Mathematics	9	Nan Chiau Primary School
IME1047	Fractions: Promoting Connections and Deep Learning	6	Elias Park Primary School
IME1041	Strategies to Teach P1 to P3 Low Progress Pupils to Solve Mathematical Process Problems	6	Stamford Primary School
IME1054	Designing Tasks to Foster Mathematical Reasoning	3	Yew Tee Primary School
INS1022	Mentoring science project work in schools	6	Henry Park Primary School
INS2175	Planning for Science Inquiry in Secondary Science Classrooms	9	Chung Cheng High School (Yishun)
INS2177	Getting ready to STEM it!	6	Dunman Secondary School
IPE0037	Strength and Conditioning for PE and Sports CCA Teachers	20	Delta Senior School
IPL0014	Basic Appreciative Coaching 101	10	Marymount Convent School
IPL0016	Designing and Facilitating an Envisioning Journey	10	Teck Whye Primary School
IPS0017	Mental Health First Aiders Training Program	6	Ministry of Communications and Information (MCI)

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& Professional Learning**

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Disclaimer: Information is correct as at December 2019.