REGULATIONS FOR THE DEGREE OF
MASTER OF EDUCATION
(MEd)

These regulations apply to students admitted to the Master of Education (MEd) curriculum in the academic year 2021-22 and thereafter.

(See also General Regulations and Regulations for Taught Postgraduate Curricula)

Ed21 Admission requirements

To be eligible for admission to the degree of Master of Education, a candidate
(a) shall comply with the General Regulations and the Regulations for Taught Postgraduate Curricula;
(b) shall hold a Bachelor's degree of this University or a qualification of equivalent standard from this University or another comparable institution accepted for this purpose;
(c) shall satisfy the examiners in a qualifying examination, if required; and
(d) for a candidate who is seeking admission on the basis of a qualification from a university or comparable institution outside Hong Kong of which the language of teaching and/or examination is not English, shall satisfy the University English language requirement applicable to higher degrees as prescribed under General Regulation G2(b).

Ed22 Qualifying examination

(a) A qualifying examination may be set to test candidates' formal academic ability or their ability to follow the curriculum prescribed.
(b) Candidates who are required to satisfy the examiners in a qualifying examination shall not be permitted to register until they have satisfied the examiners in the examination.

Ed23 Period of study

The curriculum shall normally extend over one academic year of full-time study, two consecutive academic years of part-time study, or fourteen consecutive months of blended learning mode of study for the specialism of Content and Language Integrated Learning (blended learning mode). Candidates shall not be permitted to extend their studies beyond the maximum period of registration of two consecutive academic years of full-time study, four consecutive academic years of part-time study, or twenty-six consecutive months of blended learning mode of study for the specialism of Content and Language Integrated Learning (blended learning mode), unless otherwise permitted or required by the Board of the Faculty. Candidates who have been granted leave of absence are also required to complete their study within the specified maximum period.

Ed24 Curriculum requirements

To complete the curriculum, candidates shall
(c) satisfy the requirements prescribed in TPG 6 of the Regulations for Taught Postgraduate Curricula;
(d) follow instruction in the syllabuses prescribed and complete all specified work as required; and
(e) satisfy the examiners in all assessment tasks as may be required.

Ed25 Advanced standing and credit transfer

(a) Advanced standing may be granted to candidates who have successfully completed one or more courses in this University or another qualification of equivalent standard accepted for this purpose.
(b) Candidates may be granted advanced standing subject to the following conditions:
    (i) the course(s) is appropriate for the strand applied for; and
    (ii) the application for advanced standing is received within five years of successful completion of the relevant courses or graduation from the qualification of equivalent standard accepted for this purpose, whichever is later.
(c) The amount of credits to be granted for Advanced Standing shall be determined by the Board of the Faculty, in accordance with the following principles:
    (i) a candidate may be granted a total of not more than 20% of the total credits normally required under a curriculum for Advanced Standing unless otherwise approved by the Senate; and
    (ii) credits granted for Advanced Standing shall not normally be included in the calculation of the GPA unless permitted by the Board of the Faculty but will be recorded on the transcript of the candidate.
(d) Candidates may, with the approval of the Board of the Faculty, transfer credits for courses completed at other institutions during their candidature. The number of transferred credits may be recorded in the transcript of the candidate, but the results of courses completed at other institutions shall not be included in the calculation of the GPA.
(e) Candidates who are awarded Advanced Standing will not be granted any further credit transfer for those studies for which Advanced Standing has been granted.
(f) Application for advanced standing shall be made prior to the commencement of the curriculum, and should be accompanied by copies of academic transcripts to support the application.
(g) The combined total number of credits to be granted for Advanced Standing and credit transfer shall not exceed half of the total credits normally required in accordance with this regulations and syllabuses.

Ed26 Exemption

Candidates may be exempted, with or without special conditions attached, from the requirement prescribed in the regulations and syllabuses governing the curriculum with the approval of the Board of the Faculty, except in the case of a capstone experience. Approval for exemption of a capstone experience may be granted only by the Senate with good reasons. Candidates who are so exempted must replace the number of exempted credits with courses of the same credit value.

Ed27 Assessment

(a) Candidates shall be assessed by diverse forms of assessment as prescribed by the examiners during the course of their studies.
(b) Candidates shall not be permitted to repeat a course for which they have received a passing grade for the purpose of upgrading.
(c) Courses in which candidates are given an F grade shall be recorded on the transcript of the candidate, together with the new grade if the candidate is re-assessed or repeats the failed course.
(d) There shall be no appeal against the results of examinations and all other forms of assessment.

Ed28 Re-assessment

(a) Candidates who have failed to satisfy the examiners in any part of the assessment at the first attempt may be permitted to present themselves for re-assessment in the failed course(s) as determined by the Board of Examiners.
    (i) undergoing re-assessment/re-examination in the failed course to be held no later than the

end of the following semester (not including the summer semester); or

(ii) re-submitting failed coursework, without having to repeat the same course of instruction; or

(iii) repeating the failed course by undergoing instruction and satisfying the assessments; or

(iv) for elective courses, taking another course in lieu and satisfying the assessment requirements.

(b) Candidates who have presented a research project or professional portfolio which has failed to satisfy the examiners at the first attempt may be permitted to re-present the research project or professional portfolio within a period of not more than 12 months after it is deemed unsatisfactory.

Ed29 Discontinuation

Unless otherwise permitted by the Board of the Faculty, candidates shall be recommended for discontinuation of their studies if they have:

(a) failed to satisfy the examiners upon re-assessment of a course, a research project or a professional portfolio; or

(b) exceeded the maximum period of registration specified in Regulation Ed23.

Ed30 Grading system

Individual courses shall be graded according to the following grading system:

Grade	*Standard*	*Grade Point*
A+	Excellent	4.3
A		4.0
A-		3.7
B+	Good	3.3
B		3.0
B-		2.7
C+	Satisfactory	2.3
C		2.0
C-		1.7
D+	Pass	1.3
D		1.0
F	Fail	0

Ed31 Award of degree

(a) To be eligible for the award of the degree of Master of Education, candidates shall

(i) comply with the General Regulations and the Regulations for Taught Postgraduate Curricula; and

(ii) complete the curriculum and satisfy the examiners in accordance with these regulations and the syllabuses.

(b) On successful completion of the curriculum, candidates who have shown exceptional merit may be awarded a mark of distinction, and this mark shall be recorded in the candidates' degree diploma.

SYLLABUSES FOR THE DEGREE OF
MASTER OF EDUCATION
(MEd)

These syllabuses apply to students admitted to the Master of Education (MEd) curriculum in the academic year 2023-24 and thereafter.

The degree of Master of Education (MEd) is a postgraduate degree awarded for the satisfactory completion of a prescribed programme in one of the following strands:

I. GENERALIST STRAND

II. SPECIALIST STRAND* (subject to change):
1. Chinese Language Education
2. Comparative and Global Studies in Education and Development
3. Content and Language Integrated Learning
4. Curriculum and Pedagogy
5. Early Childhood Education
6. Educational Administration and Management
7. English Language Education
8. Gifted Education and Talent Development
9. Guidance and Counselling
10. Higher Education
11. Mathematics Education
12. Psychological Studies in Education
13. Science Education
14. STEM Education
15. Teaching Chinese as a Second Language
16. Teaching Chinese Language and Literature in International Education
17. Teaching of Mathematics in an International Context
18. Teaching of Science in an International Context

(Not all specialisms may be offered every year.)

Candidates are required to complete a total of 60 credits. The total prescribed work includes self-study, library and field research where appropriate, online work such as forum discussion, e-portfolio production, etc.

I. GENERALIST STRAND

The **Generalist Strand** consists of a compulsory core course (6 credits), 7 general elective courses (6 credits each) plus a research project or a professional portfolio (12 credits).

MEDD8001 Educational Issues and Research (6 credits)

This compulsory core course aims to equip students with an overview of education as a field of study and basic understanding of educational research. It introduces key educational concepts and issues and prompts students to critically examine these issues from different philosophical, sociological, psychological, and cultural perspectives in their own professional and/or educational contexts. Another theme of the core course is introduction to educational research, so that students will be equipped with basic knowledge of research to understand and critically examine research evidence and engage in

research or evidence-informed practice. This course is a combination of mass lectures and tutorials, and the total word length of written output for various assessment tasks is between 3,000-4,000 words or equivalent.

Assessment: 100% coursework.

MEDD8008 Research Project (12 credits) (Capstone Experience)

The research project is normally between 10,000 and 12,000 words in length on an approved topic in the specialist area. Students doing a research project are required to choose one of the electives related to "Advanced Research Methods". Students will participate in a series of seminars and the capstone presentation day.

Assessment: 100% coursework.

MEDD8009 Professional Portfolio (12 credits) (Capstone Experience)

The professional portfolio is normally between 10,000 and 12,000 words in length. It provides students with an opportunity to apply what they have learned on the programme to practices, and then evaluate and reflect on such practices. Students are required to participate in a series of seminars and the capstone presentation day.

Assessment: 100% coursework.

II. SPECIALIST STRAND

The **Specialist Strand** consists of a compulsory core course (6 credits), 4 specialist courses (6 credits each), 3 elective courses (6 credits each) plus a research project or a professional portfolio (12 credits).

The exception is the specialism of Teaching Chinese Language and Literature in International Education, which does not have the research project option. Candidates are required to complete a compulsory core course (6 credits), 4 specialist courses (6 credits each), 3 specialist electives (6 credits each) and a professional portfolio (12 credits).

MEDD8001 Educational Issues and Research (6 credits)

This compulsory core course aims to equip students with an overview of education as a field of study and basic understanding of educational research. It introduces key educational concepts and issues and prompts students to critically examine these issues from different philosophical, sociological, psychological, and cultural perspectives in their own professional and/or educational contexts. Another theme of the core course is introduction to educational research, so that students will be equipped with basic knowledge of research to understand and critically examine research evidence and engage in research or evidence-informed practice. This course is a combination of mass lectures and tutorials, and the total word length of written output for various assessment tasks is between 3,000-4,000 words or equivalent.

Assessment: 100% coursework.

MEDD8008 Research Project (12 credits) (Capstone Experience)

The research project is normally between 10,000 and 12,000 words in length on an approved topic in the specialist area. Students doing a research project are required to choose one of the electives related to "Advanced Research Methods". Students will participate in a series of seminars and the capstone presentation day.

Assessment: 100% coursework.

MEDD8009 Professional Portfolio (12 credits) (Capstone Experience)

The professional portfolio is normally between 10,000 and 12,000 words in length. It provides students with an opportunity to apply what they have learned on the programme to practices, and then evaluate and reflect on such practices. Students are required to participate in a series of seminars and the capstone presentation day.

Assessment: 100% coursework.

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1. CHINESE LANGUAGE EDUCATION 中國語文教育

This specialism provides teachers, language educators and teacher educators with theoretical knowledge and the latest research developments in Chinese linguistics and language education and enhances their pedagogical skills. This specialism also aims to promote research relevant to language in education in Hong Kong.

MEDD8853 The Chinese Language Curriculum and its School-Based Application [中國語文課程與校本課程的應用] (6 credits)

This course introduces the development, implementation, dissemination and evaluation of the Chinese Language curriculum with reference to classical and new curriculum models. This course will provide case studies of school-based Chinese Language curriculum in Hong Kong primary and secondary schools to navigate the new curriculum landscape. The students will learn what it really takes to structure, align, integrate, and evaluate quality Chinese language curriculum for savvy curriculum leadership in the 21st century.

Assessment: 100% coursework.

MEDD8854 Assessment in Chinese Language Education [中國語文教育：評估] (6 credits)

This course introduces important concepts of assessments including norm-referenced and criterion-referenced tests, formative assessment, and summative assessment, adaptive assessment, assessment of learning, assessment for learning, and assessment as learning. Students are encouraged to adopt inquiry modes to investigate the relationship between these concepts in the field of Chinese language education. The course also provides practical modes and strategies, including constructing and evaluating Chinese language tests, interpretation and applications of test scores, peer and self-assessment, portfolio building, rubrics design, etc. This course gives practices school-based assessment and qualitative feedback system to focus more on individual students' development progress in learning Chinese language.

Assessment: 100% coursework.

MEDD8855 Psycholinguistic and the Chinese Language Learning Process [心理語言學及中國語文學習過程] (6 credits)

This course aims at preparing students and professionals with the conceptual ground of psycholinguistics in understanding the acquisition, comprehension and production of Chinese language. It examines children's ability to learn language, Chinese character recognition, the processes of reading, composing processes, creativity and second language acquisition. This course combines empirical data and a synthesis of recent research in Chinese psycholinguistics to deliver cutting-edge instructions to students. Students are encouraged to critically analyse research and theory from a psycholinguistics perspective.

Assessment: 100% coursework.

MEDD8856 Chinese Reading Comprehension Instruction: Theories and Practices [中文閱讀理解教學理論與實踐] (6 credits)

Reading comprehension is a crucial part of Chinese language and literature instruction. This course provides students' pedagogical context knowledge for enhancing Chinese students' reading comprehension ability in their classrooms. The course introduces various theories and practices on reading processes, reading motivation and reading strategies. Students also learn techniques for examining, promoting and teaching Chinese reading comprehension. In this course, students will be given the opportunity to apply reading theories to classroom context and learn how to motivate students to read and how to enhance students' higher order reading ability.

Assessment: 100% coursework.

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2. COMPARATIVE AND GLOBAL STUDIES IN EDUCATION AND DEVELOPMENT

Comparison is a fundamental tool for all forms of enquiry. When applied to education in an international setting, it assists in identification of factors which shape education systems, processes and outcomes, and instruments for improvement. The comparisons in this specialism will be framed by theories and understandings of the forces of globalisation. These forces bring benefits for many people, but can also have negative dimensions. The specialism will examine forces of continuity and change and the implications for educators. It will also focus on the nature of development in an international context and on the role of education in the processes of development. This will include analysis of all levels of formal education (early childhood to higher education), and various types of non-formal education. It will include particular reference to UNESCO's work in the context of the United Nations' Sustainable Development Goals (SDGs).

MEDD6095 Addressing the Global-Local Nexus in Education (6 credits)

This course will develop students' understandings of both local and global education policies and practices. Adopting a 'glocalisation' perspective, it will stress a new localism that stands as an act of resistance against globalisation and rootlessness to reclaim the significance of the local in the global age. Drawing on local experiences and phenomena as a source of learning, this course will introduce students to an understanding of education that is conscious of local places to enable them to be inducted into the knowledge and patterns of behaviour associated with responsible community engagement.

Assessment: 100% coursework.

MEDD6097 Themes and Approaches in The Field of Comparative Education (6 credits)

This course will introduce students to the history and nature of comparative education as a field of enquiry. It will note the principal dimensions of the field as conventionally defined in the literature on the topic, and will consider some variations in emphasis in scholarly communities and other actors in different parts of the world. The course will also consider the nature and contents of some key vehicles

for publishing comparative education research, including journals, books and reports by international agencies. The course will conclude with an overview of the nature and directions of the field.

Assessment: 100% coursework.

MEDD6098 Critical Issues in Educational Reform (6 credits)

This course examines different themes, contexts, and theories regarding educational reform from an international comparative and historical perspective. The course begins with an exploration of the concepts of policy and reform, aligned with their emergence vis à vis the development of schooling and education. This will be associated to what knowledge is, what knowledge is taught, and where and how it is taught. The main idea underlines that knowledge is not a taken-for-granted matter, but rather an interpreted and constructed phenomenon. A discussion on knowledge as a public and private good emerges to better articulate the discussion on globalisation, privatisation and choice, which have been at the forefront of educational policy and reform in the past two decades. This sets the foundations to discuss policy design and implementation, and the role of agents in both processes. Issues of educational quality, equity, efficiency, accountability, and planning will be discussed, focusing on many realities across the world.

Assessment: 100% coursework.

MEDD6099 Education for Sustainable Development (6 credits)

This course examines education and sustainable development (ESD) from a comparative perspective. The course raises the question what sustainable development means in practice within economic, environmental, political and cultural domains, and traces the history of the concept. Additionally, the course considers education in relation to sustainable development in a variety of geographical contexts. In Hong Kong and many other high-income societies, education for sustainable development is often related to environmental education. However, in low-income contexts (especially in Africa and Asia) it commonly refers to education that helps to meet local social, political, and economic needs and empowers local people and communities. A gap can be identified in these latter contexts, between "education for sustainable development" as a global concept, versus "sustainable educational development" from a local perspective. Students will analyse a variety of approaches to education for sustainable development, to understand the ways in which concepts can be developed and applied in practice in a range of contexts.

Assessment: 100% coursework.

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3. CONTENT AND LANGUAGE INTEGRATED LEARNING

This specialism aims to cater for more content and language in-service and pre-service teachers in Hong Kong, Mainland China, and overseas. It is designed for subject teachers who are directly involved in English medium instruction (EMI) and English language teachers who have a role to play in supporting EMI content teaching. It equips participants with the linguistic principles and knowledge of practice to develop and implement language-across-the-curriculum initiatives in schools to improve both English academic literacy and EMI content instruction.

MEDD8843 Textual Analysis I: Academic Literacies in Science and Mathematics (6 credits)

This course focuses on raising both content teachers' and English teachers' academic language awareness. Specifically it aims to introduce course participants to different kinds of academic genres characteristic of the disciplines of science and mathematics. The genre patterns as well as grammatical and lexical features specific to different kinds of academic genres in science and mathematics are systematically analysed. The ultimate aim is to equip course participants with the knowledge and skills

needed to identify and describe the various language demands of academic texts and tasks in the disciplines of sciences and mathematics and to develop and enhance language support to better scaffold learners' understanding of academic content in English.

Assessment: 100% coursework.

MEDD8844 Textual Analysis II: Academic Literacies in the Social Sciences and Humanities (6 credits)

This course focuses on raising both content teachers' and English teachers' academic language awareness. Specifically it aims to introduce course participants to different kinds of academic genres characteristic of the disciplines of the social sciences and humanities. The genre patterns as well as grammatical and lexical features specific to different kinds of academic genres in the social sciences and humanities are systematically analysed. The ultimate aim is to equip course participants with the knowledge and skills needed to identify and describe the various language demands of academic texts and tasks in the disciplines of the social sciences and humanities, and to develop and strengthen language support to better scaffold learners' understanding of academic content in English.

Assessment: 100% coursework.

MEDD8845 Principles and Practice: Bridging Pedagogy in Content and Language Integrated Learning (6 credits)

This course focuses on introducing the principles and practice of bridging pedagogical approaches that are designed to assist ESL/EFL learners to develop the kind of academic literacies required in different subject disciplines. Specifically, it aims to introduce to both content and language teachers the principles and practice of socio-cultural scaffolding by making use of multi-media and multimodal resources and a range of linguistic bridging strategies.

Assessment: 100% coursework.

MEDD8846 Principles and Practice: Course Design in Content and Language Integrated Learning (6 credits)

This course focuses on introducing the principles and practice of CLIL. It covers the historical development of the field by discussing the theories and practice of different related approaches including: content-based instruction (CBI), and content and language integrated learning (CLIL). Established research traditions of genre theories (e.g. the 'Genre Egg') and pedagogical theories (e.g. the 'Teaching and Learning Cycles', the 'Detailed Reading' approach) informing the work of CLIL are given emphasis. The different contexts in which these approaches have developed are also examined with a view to adapting/re-designing them to suit the local or new pedagogical contexts. Course participants are guided in expanding their capacity to adapt and design CLIL/LAC materials.

Assessment: 100% coursework.

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4. CURRICULUM AND PEDAGOGY

The specialism aims to develop an advanced understanding (appropriate to the Master's level) and leadership in the field of curriculum studies. Specifically, students will follow specialist courses that explore ideas and theories in the areas of curriculum concepts and design, learning, assessment and pedagogy, curriculum policy and practice, curriculum implementation and evaluation.

MEDD6128 Curriculum Conceptions and Design (6 credits)

This course aims to familiarise students with the field of curriculum studies and to identify some of its main theoretical perspectives and enduring issues. It introduces students to the main conceptions of curriculum and to the various ways these conceptions are categorised. It examines critically the basic tenets of these conceptions and explores their implications for curriculum design and analysis at systemic and school levels.

Assessment: 100% coursework.

MEDD6131 Comparative Perspectives on Curriculum (6 credits)

This course offers a comparative study of different approaches to curriculum around the world. It examines the question of how globalisation is impacting curriculum worldwide via curriculum reforms and assessment regimes versus localisation in different regional/country/system contexts. Critical historical and comparative perspectives on curriculum are developed through understanding the interdisciplinary perspectives shaping curriculum policy decisions in different systems. The question of globalisation will also be considered with reference to the students' experiences and background including Hong Kong.

Assessment: 100% coursework.

MEDD8819 Linking Curriculum to Learning and Pedagogy (6 credits)

The course shows how more powerful ideas, more powerful educational practices and more powerful research methods can be developed by means of underlining the mutual dependence between learning, and teaching, theory and practice, collective and individual, ideas and acts. It then critically reviews the role of learning, assessment and pedagogy and evaluates trends that are occurring in these areas globally and in Hong Kong.

Assessment: 100% coursework.

MEDD8820 Curriculum Implementation: Issues and Challenges (6 credits)

This course aims at developing the understanding of education professionals in the area of curriculum implementation and evaluation through a critical examination of the processes and stages of curriculum implementation as well as evaluation models. It specifically provides a critical analysis of the factors influencing curriculum implementation, the application of evaluation, the issues and challenges involved from multiple perspectives such as organisational, cultural, technological, ethical perspectives by connecting theory and practice.

Assessment: 100% coursework.

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5. EARLY CHILDHOOD EDUCATION

The specialism aims to provide participants with the knowledge, skills, and attitudes to facilitate high quality and contextually appropriate early childhood education. Specifically, the specialism will help participants acquire scientifically-based knowledge about early childhood education, develop a deeper understanding of contextual influences on children's development and learning, and further develop their professional competence in planning, implementing and evaluating programmes of early childhood education and care. Participants will also be encouraged to access the most recent international knowledge in the field.

MEDD6141 Promoting Child Development in Early Childhood Education (6 credits)

This course will consider approaches to understanding and facilitating various aspects of development, which include physical, cognitive, language and social and emotional development of young children. It will consider influences on early childhood development and examine the applications of child and human development theories in early childhood education programmes. This course will also cover various topics in early childhood development and education: (1) observation and assessment in the early years, (2) school readiness, (3) optimal child development, and (4) home-school cooperation.

Assessment: 100% coursework.

MEDD6142 Learning and Teaching in Early Childhood Education (6 credits)

This course considers how theoretical approaches and socio-contextual factors have shaped approaches to early childhood education. Curriculum models adopted in early childhood programmes in different countries will be critically evaluated. The course will also consider (1) evidence-based practice in curriculum, planning, implementation and evaluation, and (2) the influence of recent research and the educational reforms on learning and teaching.

Assessment: 100% coursework.

MEDD6143 Planning, Management, Evaluation and Leadership in Early Childhood Education (6 credits)

This course provides an overview of how to plan, implement and evaluate early childhood programmes. Specific topics include: the development and review of programmes; financial management; staff development and appraisal; leadership, the development of effective communication strategies for working with other adults; and advocacy for children. Case studies based on the local context will be used throughout the course and the impact of the educational reform on the administration and management of early childhood programmes will also be considered.

Assessment: 100% coursework.

MEDD6144 Contemporary Issues in Early Childhood Education (6 credits)

This course will consider global, contemporary and controversial issues in early childhood education (ECE). It will consider (1) international trends in ECE policy and provision including concerns with equitable access to quality services, (2) trends and issues in ECE curriculum, (3) issues related to the professional development of teachers, (4) issues related to parental choice of ECE programs, and (5) selected controversial issues in ECE. The course will analyse trends and issues from multiple perspectives.

Assessment: 100% coursework.

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6. EDUCATIONAL ADMINISTRATION AND MANAGEMENT

This specialism provides educators with related theoretical background, cultivates their research interests and abilities to understand and analyse the effective practice of administration and management in education, as well as in other relevant contexts as appropriate. Topics discussed will include organisation theories; management theories; theories and strategies for decision-making; sociological perspectives of educational institutions; educational policy-making and planning; organisational performance; accountability and law in education; and research methodology in educational administration.

MEDD6192 Educational Leadership and School Management (6 credits)

This course traces the recent development of leadership theory in education in order to explore what it really means to build an effective school of tomorrow, and what types of leadership would be most adequate for this enormous task. The course has integrated a comparative perspective, and looks into case-studies and findings from Asia Pacific, Australia, Europe and North America. The participants will explore the latest themes in leadership theories and will examine differentials in cultures, values, intelligences, and styles. The course will focus on approaches to school leadership that promote high quality learning environment and student learning achievement. However, the course will draw on examples from both educational and non-educational settings to relate theories to practice. There will be an opportunity for students to share their own experiences by contributing to group discussions and presentations.

Assessment: 100% coursework.

MEDD6193 Concepts and Issues in School Based Management (6 credits)

This course provides a systematic study of the theory and practice of School-Based Management (SBM), its background and its major features. Within the SBM framework, topics to be covered will include organisational structures, proposed leadership models and leadership training, data on learning outcomes, preferred funding models, models of school planning, implementation and evaluation, and quality assurance. Particular emphases will be placed in the area of staff development and appraisal. Related theories, concepts, skills and strategies will be studied and the relationship between staff development and appraisal, with special reference to the implications for school effectiveness and educational change, will be closely examined.

Assessment: 100% coursework.

MEDD6195 Administrative and Organisational Theory for Educational Institutions (6 credits)

This course will trace the evolution of administrative and organisational theories, from classical to contemporary schools of thought, in the context of educational institutions. It will enable students to conceptualise and analyse organisational phenomena from various perspectives, including classical, human resource, systems, political, cultural, critical and postmodern schools of thought. Particular attention will be given to the application of these ideas to leadership and organisational learning, change and effectiveness.

Assessment: 100% coursework.

MEDD7100 Legal Aspects of Educational Administration (6 credits)

The course aims to better equip students with legal literacy, concepts and reasoning so that they would be able to understand legal aspects of educational administration, examine the implications for effective operation of the school, make sensible administrative decisions effectively and legally. The content covers basic legal concepts and legal jurisdiction. Issues such as employment, student rights, school liabilities, staff relation, equal opportunities, personal data, collaboration with law enforcement bodies will be explored.

Assessment: 100% coursework.

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7. ENGLISH LANGUAGE EDUCATION

The specialism aims to provide experienced teachers and language specialists with an appropriate theory-based framework within which to understand and investigate issues involved in English language education, in order that they can develop leadership roles in the profession. The specialism focuses on the development of participants' language awareness, with a view to equipping them with

the expertise necessary for a critical understanding of approaches to research and development in English language teaching and learning. The specialism also develops the practical skills needed for school-based classroom research, curriculum development, and the implementation of innovations.

MEDD6311 English Language Curriculum and Assessment (6 credits)

This course is concerned with developments in the English Language curriculum, both in the Hong Kong context and also in relation to regional and global trends. The course focuses on processes of curriculum renewal and the implementation of curriculum innovations, and examines assessment as an integral part of the curriculum, along with syllabus and methodology. The main topics covered include: trends in ELT methodology (communicative language teaching, task-based language teaching, the incorporation of language arts, IT in language learning); relations between assessment and curriculum, (feedback, washback, formative assessment and school-based assessment). These developments are analysed within a framework of curriculum innovation and educational change. All of these are considered in relation to Hong Kong curriculum reforms, such as the New Senior Secondary English curriculum. The course aims to develop participants' understanding of the key developments and innovations in the English Language curriculum, and their criticality in evaluating the implementation of ELT innovations in their own context.

Assessment: 100% coursework.

MEDD6702 Language Awareness: Grammar and Lexis (6 credits)

This course focuses on the interface between teachers' knowledge about language (specifically grammar and lexis) and their pedagogical practice. It is concerned with descriptions of English grammar and lexis and their close interrelationship. Rather than attempting an overview of English grammar and lexis, the course highlights certain key areas for in-depth exploration. The course aims to act as a catalyst to promote improvement in participants' knowledge about grammar and lexis, since this is seen as essential to their work as English language educators. At the same time, it invites participants to consider the impact of their knowledge about grammar and lexis on the decisions they make and the strategies they employ in their teaching.

Assessment: 100% coursework.

MEDD6703 Second Language Acquisition (6 credits)

This course aims to develop participants' critical understanding of the key issues in second language acquisition. It seeks to engage them in understanding and reviewing these issues from the cognitive and sociocultural perspectives. Participants are also required to apply these theoretical perspectives to their own experiences as second language learners and teachers. Both theoretical and pedagogical issues will be addressed through an analysis of authentic evidence of second language learning reported locally and internationally. Participants will also be introduced to current debates in the field, in particular the relationship between language and cognition, as well as the roles of input, interaction, output, form-focused instruction, motivation and learner strategies in second and bilingual language development. The course will also address the broader socio-political context of second language learning and language policy development.

Assessment: 100% coursework.

MEDD6709 An Introduction to Sociolinguistics (6 credits)

This course provides opportunities for candidates to explore the relationships between language, education and society. It addresses a variety of topics including social and regional diversity within a language, multilingualism, language shift and maintenance, the rise of English as a global lingua franca, language planning, choice of a language as medium of instruction, as well as language and identity.

The course aims to help candidates to develop an understanding of basic concepts in sociolinguistics; a critical understanding of the roles of language in society and education; a critical awareness of professional challenges resulting from shifting sociolinguistic conditions.

Assessment: 100% coursework.

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8. GIFTED EDUCATION AND TALENT DEVELOPMENT

This is a professional graduate course designed for administrators, teachers, enrichment specialists, student affairs professionals, and guidance personnel concerned with various aspects of gifted education and talent development in schools and similar settings. The course is based upon the belief that talent development is essential for all school students. The course provides not only the theoretical framework for gifted education but also practical strategies for organising and implementing activities that foster students' creativity, talent development, social and emotional development, and career preparation. The course addresses participants' development of key competencies necessary for implementing school-wide gifted education and talent development programmes. The participants in this specialism will be encouraged to reflect on their own practices and strategies in gifted education and talent development, which in turn can contribute to the building of a school-wide talent development system.

Candidates are required to complete the 4 specialist courses and a specialist elective course MEDD8878 Practicum in Gifted Education and Talent Development two elective courses (6 credits each), and an option of a Research Project (12 credits) or a Professional Portfolio (12 credits).

MEDD7038 Counselling, Career Education and Talent Development in Schools (6 credits)

This course will compare theories and practices of counselling, career education and talent development programmes in schools in Hong Kong and other parts of the world. Topics will include: life career perspective; comprehensive school guidance and counselling programmes; identification of students for talent development programmes; assessment of life career and talent development; individual development planning; student advisory and mentorship schemes; theories of career development; career awareness among children; career exploration with adolescents; career decision making among senior secondary school and college students; career development of talented students and students with special needs; talent development in schools; theories of talent development; curriculum models and instructional strategies for talent development; career counselling of the exceptionally gifted; family influences; multicultural perspective; gender issues; life-wide learning; career-related experiences; services learning; programme evaluation and enhancement. The course is relevant to all teachers and guidance personnel who wish to enhance students' career and talent development through subject teaching and co-curricular activities. Case studies of good practices in Hong Kong and elsewhere will be introduced. Course participants are expected to work in collaborative learning groups to integrate theories and practices.

Assessment: 100% coursework.

MEDD8831 Nurturing Creativity: Theories and Practices (6 credits)

This course will introduce participants to creativity from both theoretical and practical perspectives. There will be an overview of the key concepts and theories of creativity, as well as discussions on topics such as creativity research, creativity assessment, and the relationship between creativity and other psychological constructs. In addition, participants will explore how creativity can be nurtured in young children and primary and secondary school students. Participants will be equipped with creativity-fostering strategies and techniques to be applied to individuals as well as educational settings. The course is relevant to all teachers and educators who wish to know more about creativity and how it can be nurtured among others. Participants are expected to engage in experiential learning activities and reflection.

Assessment: 100% coursework.

MEDD8876 Psychology and Education of Gifted and Talented Individuals (6 credits)

The course examines gifted education and the psychology of gifted and talented individuals. Topics will include: understanding gifted and talented individuals, gifted education in Hong Kong and other parts of the world, gifted education and education reform, identification of gifted and talented students, multiple intelligences, psychological adjustment, guidance and counselling for gifted students, school-wide enrichment and provisions for talent development, curriculum models and instructional strategies for gifted learners, parenting gifted and talented children, teaching for creativity, programme development and evaluation, gifted underachievers, social development and moral leadership. Selected case studies and critical issues in implementing gifted programmes will be examined.

Assessment: 100% coursework.

MEDD8877 Social and Emotional Needs of Gifted Individuals (6 credits)

This course provides an overview of the theory, research, and practice related to working with gifted children, specifically focusing on their social and emotional needs. It explores the theoretical underpinnings of psychosocial variables of gifted individuals; introduces models of different instructional approaches to facilitate the affective learning for gifted individuals and curriculum development that is essential for talent development; and covers special populations like underachievement and twice-exceptionality. The role of the teacher in empowering parents on advocacy will also be examined. The course focuses on best practices from theories and research as well as application of these theories in authentic settings, using cases and everyday examples.

Assessment: 100% coursework.

Specialist Elective Course

MEDD8878 Practicum in Gifted Education and Talent Development (6 credits)

All students are required to complete an individualised practicum in gifted education and talent development in a school or at an approved agency/organisation. The supervised practicum provides students with the opportunity to develop professional competencies in applying methods and strategies for gifted and talented learners in a real-life setting. Students will receive group and individual supervision and feedback. To pass this course, students must demonstrate competency in supporting gifted and talented learners and also demonstrate critical reflection on their own practices. Evidence of the ability to translate theory into practice will be expected.

Prerequisite: Completed MEDD8876 Psychology and Education of Gifted and Talented Individuals

Assessment: 100% coursework.

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9. GUIDANCE AND COUNSELLING

This specialism is a graduate professional specialism designed for administrators, teachers, student affairs professionals, and guidance personnel concerned with various aspects of educational guidance, career education and counselling in schools and similar settings. The specialism is based upon the belief that personal-social, academic and career development is essential for all school students. This specialism is based on the "systems approach" as a conceptual framework, and addresses approaches that schools may employ in strengthening Domain Three—Student Support and School Ethos. Awareness of the overall framework will assist in school self-evaluation and external school review.

The specialism provides not only the theoretical framework but also practical strategies for organising and implementing guidance activities that foster students' whole-person development. This specialism addresses the competencies teachers are required to display in the Dimension "Pastoral Care for Students" as an important aspect of their continuing professional development.

The specialism addresses participants' development of key competencies necessary for implementing comprehensive guidance and career education programmes in educational settings. The participants in this specialism will be encouraged to reflect on their own practices and strategies in guidance and counselling, which in turn can contribute to the building of a comprehensive guidance system. The aim is to develop their ability to find creative solutions to various critical issues in student development in Asian cultural contexts. Attention will be given to designing and implementing a guidance curriculum, the provision of career-related activities, and the development of policy and support related to student guidance, student affairs, career education and counselling. The specialism places emphasis on the delivery of student guidance as a whole-school approach, with strategies and skills pertinent to guidance, counselling, and discipline. It covers: mastery of individual and group counselling skills to support students, parents and teachers; guidance strategies to foster students' personal, social, career and talent development; supporting students in distress; and crisis intervention.

Candidates are required to complete the 4 specialist courses and a specialist elective course MEDD8678 Counselling Process, Ethics and Skills, two elective courses (6 credits each), and an option of a Research Project (12 credits) or a Professional Portfolio (12 credits).

MEDD6248 Theories and Practices in Counselling and Group Guidance (6 credits)

The course examines theories and practices in counseling and group guidance in schools. Content will include the following topics: counseling in a school setting; counseling as a helping process; theoretical approaches to counseling; beginning and developing a counseling relationship; career counseling; assessment in counseling; ethical issues in counseling; theories of group guidance and their implementation in schools; group leadership skills; peer counseling; life skills and leadership training; large-group guidance in the classroom and beyond. Selected case studies of counseling and group guidance in local schools will be examined. The course is relevant to all teachers and guidance personnel who need to apply counseling skills in their teaching and guidance activities.
Assessment: 100% coursework.

MEDD8601 Comprehensive Guidance and Positive Youth Development: A Whole-School Approach (6 credits)

This course will provide an introduction to the theoretical framework of guidance as a whole-school approach, comprehensive guidance, and positive youth development. The whole-school approach will be discussed in the context of school policy formulation, system development, and support measures for preventive, developmental, and responsive services for students. The course will consider theoretical and practical bases for designing and implementing comprehensive guidance and counselling programmes to be used in individual, group, and systemic contexts. Practices and research in using positive youth development approach to guidance will be introduced. Relevant good practice in Hong Kong school settings will be shared. The course can be relevant to all administrators, teachers and guidance personnel. Course participants are expected to work individually and in collaborative learning groups to integrate practices and theories.

Assessment: 100% coursework.

MEDD8602 Practicum in Counselling and Group Guidance (6 credits)

The supervised practicum provides students with the opportunity to practise and receive regular supervision, as well as developing professional competencies in specific contexts. All students are required to complete an individualised practicum in counselling and group guidance in a school or at

an approved agency/organisation. Students will receive group and individual supervisions. To pass this course, students must demonstrate competency in counselling within a range of presenting issues, and demonstrate critical reflection on knowledge of theory and issues related to counselling practice and supervision.

Prerequisite: Previous enrolment in MEDD6248 Theories and Practices in Counselling and Group Guidance and MEDD8678 Counselling Process, Ethics and Skills

Assessment: 100% coursework.

MEDD8884 Career Counselling and Talent Development in Schools (6 credits)

This course will compare theories and practices of career counselling and talent development programmes in schools in Hong Kong and other parts of the world. Topics will include individual development planning; student advisory and mentorship schemes; theories of career development; career awareness among children; career exploration among adolescents; career decision making among senior secondary school students and college students; career development of talented students and students with special needs; talent development in schools; theories of talent development; identification of students for talent development programmes; assessment of life career and talent development; career counselling of the exceptionally gifted; family influences; multicultural perspectives; gender issues; life-wide learning; career-related experiences; service learning; programme evaluation and enhancement. The course is relevant to all teachers and guidance personnel who wish to enhance students' career and talent development through subject teaching and co-curricular activities.

Assessment: 100% coursework.

Specialist Elective Course

MEDD8678 Counselling Process, Ethics and Skills (6 credits)

This course will introduce students to the basic processes, ethics and skills of counselling applicable in schools or other educational settings. Knowledge and understanding of how a counselling relationship develops over time (process) will be focused on and facilitated within a workshop style delivery. Personal development of the course participants will be encouraged through many opportunities to observe, practice skills and reflect on personal interaction and process. Topics will include skills for engaging student, assessment, goal setting and action planning, ethics in counselling, skills for developing helping relationship, skills in managing crisis, and skills for ending the counselling relationship. The course is relevant to all teachers and guidance personnel who wish to enhance their counselling competencies. Participants are expected to engage actively in experiential learning activities and reflection.

Assessment: 100% coursework.

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10. HIGHER EDUCATION

This specialism is designed to provide students with a comprehensive perspective on the theories and practices in higher education. In the increasingly globalised and complex higher education environment, the programme aims to enhance students' critical thinking, research skills, and professional development in higher education. The courses draw on interdisciplinary perspectives from philosophy, sociology, economics, political science, pedagogy, and comparative education. It also covers multiple layers of higher education, including global and national systems, institutional policy and practice, and teaching and learning. Teachers in the specialism are globally known scholars in higher education and their research works are widely published internationally. Students who want to develop their research skills for further study, seek career advancement in the higher education sector, and pursue

interdisciplinary knowledge in education are welcome.

MEDD6344 Aims of Higher Education (6 credits)

This course draws on the aims of higher education from both historical and sociological perspectives. It will consider the development of different higher education traditions, including liberal, civic and Humboldtian models, discuss the aims of higher education in the modern age, and explore what future university aims should be. The aims of higher education in the modern age will be considered in the context of the changing nature of the academic practice, such as massification, technological advance, and globalisation. The course will also discuss controversial issues regarding the aims of higher education across institutional types and educational levels.

Assessment: 100% coursework.

MEDD8917 Institutional Design in Higher Education (6 credits)

Instructional design of teaching and assessment practices is important for student learning at all levels of education. Arguably, such instructional design is even more important in the higher education that aims to educate future professionals. How could teachers design teaching and assessment practices in higher education in ways that enable students to grow as future professionals in the "knowledge economies"? This course focuses on the higher education-specific nuances of instructional design. The course will introduce the participants with contemporary approaches to instructional design within the wider contexts of digitalisation, internalisation and "massification" of higher education. The course will also shed light on the role of assessment, grading and feedback design in contemporary higher education. Finally, the course provides some critical tools to understand the changing practices of instructional design within the broader societal movements (e.g. the rise of Artificial Intelligence and the marketisation of higher education).

Assessment: 100% coursework.

MEDD8918 Contemporary Issues in Higher Education (6 credits)

This course provides knowledge of contemporary issues in higher education. It will include massification, access and equity, privatisation and financing, higher vocational education, quality assurance, affirmative action, knowledge innovation, university ranking, internationalisation, and automation and artificial intelligence (AI) in higher education. Students will demonstrate an understanding of the theoretical basis for critical issues facing higher education in a changing society and economy.

Assessment: 100% coursework.

MEDD8919 Science and Higher Education Systems and Policy (6 credits)

The course discusses the overlaps and relations between the science and technology system and the higher education system using the public policy process as an analytical tool to engage with both systems. The engagement between both systems is done using a mix of perspectives that are anchored on relevant issues and related policy. In doing this, the objectives and characteristics of both systems are considered on how policy is shaped to adapt to an often-negotiated purpose that serves national interests or to face global competitiveness. To better understand this process, specific aspects and activities that overlap the two systems are particularly focused on such as the incentives for the creation, protection and dissemination of knowledge creation, the dynamics of knowledge creation, knowledge impact and assessment, training of the scientific and non-scientific labor force, and sustainability of scientific and higher education structures.

Assessment: 100% coursework.

11. MATHEMATICS EDUCATION

This specialism is designed for teachers and other educators directly involved with mathematics education. It aims to provide a comprehensive overview that will cover relevant research and contributions to the discipline from a variety of perspectives, namely the social and cultural context, teaching and learning, the curriculum, philosophy, and the impact of technology.

MEDD6387 Research into the Teaching and Learning of Mathematics (6 credits)

This course gives an overview of theories and research on the teaching and learning of mathematics. Research in the teaching and learning of some major areas in mathematics such as algebra is reviewed. In addition, examples of investigation of mathematics teacher's pedagogical content knowledge, teacher conception, and assessment related to the teaching and learning of mathematics, classroom research, small-scale and large-scale studies will be discussed. The course and assessment are designed in such a way for an introduction to a virtual experience of research culture for mathematics teachers and professionals. It is hoped that in the course the students will read, talk about, reflect upon how research may have an implication in their profession. They are expected to make presentations, plan their own research, and develop an awareness of how a research culture can be an enhancement of their life-long professional development. At the end of the course, students should be able to: (1) be aware of the issues and topics related to research in the teaching and learning of mathematics, (2) carry out literature review for specific issues of interest, reflect and discuss in relation to the local context and their workplace, and (3) write a research proposal for school-based development for the mathematics teaching and learning.

Assessment: 100% coursework.

MEDD6388 Curriculum Research and Development in Mathematics (6 credits)

This course discusses issues that revolve around the mathematics curriculum and its development in schools. Without limiting the discussion to Hong Kong, a deeper understanding of the issues and concepts concerned with curriculum research and development is expected to be emerging from a better knowledge about the mathematics curricula in various other countries. Important issues to be discussed include: the ongoing development of curriculum in mathematics; current mathematics curriculum projects overseas; the history of the mathematics curriculum; forces that shape the mathematics curriculum in Hong Kong; the relevance of school mathematics; mathematics across the curriculum; assessment in mathematics; school mathematics that caters for individual differences; and diversification and standardisation of the mathematics curriculum.

Assessment: 100% coursework.

MEDD6389 The Philosophical, Social and Cultural Aspects of Mathematics Education (6 credits)

This course focuses on the features that characterise mathematics as a distinctive discipline. It explores the relationship between the nature of the discipline, the aims of mathematics education, and the nature of mathematics teaching and learning. The effect on teachers' and students' beliefs and attitudes, and on students' achievement will also be discussed. In addition, this course investigates the social and cultural factors that affect the teaching and learning of mathematics. This includes international comparisons of socio-cultural differences; ethnomathematics from anthropological and utilitarian perspectives; social inequalities including gender issues; and the relationship between language and mathematics. The objectives of the course are to enable students to (1) reflect critically on the features that characterise mathematics as a distinctive discipline, and be aware of the conflicting views on the nature of mathematical knowledge, (2) explore the relationship between the nature of mathematics and

the nature of mathematics teaching and learning, (3) explore the social and cultural factors that affect the teaching and learning of mathematics, (4) reflect upon the aims of mathematics education and how mathematics instruction should be conducted, and (5) reflect critically on how teachers' views of mathematics and mathematics education affect their own practice.

Assessment: 100% coursework.

MEDD6390 Innovation and Development of Instructional Design in Mathematics (6 credits)

This course focuses on research and development of educational design in mathematics. By analysing cases of pedagogical practice and innovation, students will understand and reflect on principles and theoretical frameworks guiding the process of developing mathematics pedagogy. There will be study of task design, involving different tools and representations, situated in various contexts of mathematics learning, from the perspectives of teachers, designers and researchers. Special attention will be given to the role of digital technology in shaping the goals and means of developing mathematics instructions and building learning environments.

Assessment: 100% coursework.

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12. PSYCHOLOGICAL STUDIES IN EDUCATION

This specialism is designed to familiarise teachers/educators/individuals interested in psychological studies in education with the basic concepts and principles of developmental, educational, and social psychology and their application in educational contexts. Strong emphasis will be placed on topics and issues in contemporary research that are relevant to schools and higher educational institutions in Hong Kong, Mainland China, and the rest of the world. Sample topics covered are (1) learner characteristics (e.g. cognitive development, language development, moral development, psychosocial development, interpersonal development, and factors influencing student development such as individual differences in learning approaches, motivation, and learning styles), (2) teacher characteristics (e.g. conceptions of teaching and learning, emotions in teaching, teacher self-efficacy, teaching styles, and teaching approaches), and (3) the process, context, and culture of learning (e.g. theories of learning and teaching, curriculum, pedagogy, learning how to learn, designing effective learning, classroom talk, assessment, computer-supported collaborative learning, and the Chinese Learner).

MEDD6441 Developmental Psychology for Educators (6 credits)

This course will familiarise educators with the major theories, concepts and research findings of developmental psychology as well as some of the skills and techniques of gathering information on children and adolescents. The application of developmental research to educational practice and policy will also be considered. By the end of this course, students should gain an understanding of (1) major developmental theories, (2) the sequence of child and adolescent development and the processes that underlie them, (3) the interdependence of all aspects of development, i.e. physical, cognitive, emotional and social, and (4) the impact of context and culture on development.

Assessment: 100% coursework.

MEDD6442 Cognition, Learning and Instruction (6 credits)

This course will be based on theories in Educational Psychology and Learning Sciences focusing on the interfaces of cognition, design and context to examine how students learn. The course will start with an overall framework introducing contemporary theories of learning and models of classroom instruction. The first component introduces research in student cognition and learning including conceptions and approaches to learning, epistemological beliefs, self-regulated learning and motivation. The second component addresses the question of design and examines how learning for 21st century education can

be promoted. Theories, principles and practice related to higher order thinking, assessment for learning, and technology-supported learning will be introduced. This course also examines the influences of psychological factors and socio-cultural context and research on the Chinese Learner will be discussed. Throughout the course, students will be provided with learning experience that mirrors the theories discussed in the course.

Assessment: 100% coursework.

MEDD6443 Student Development: Theory, Research and Practice (6 credits)

Student development concerns the holistic development of a student - his/her development of psychological characteristics, physical development, career interest development, emotional development, identity development, moral development, social development, as well as intellectual development. This course examines student development not only from a theoretical perspective but also from a practical perspective. It studies the main theories of and research on student development both classic and contemporary ones. Emphasis is further placed on how these theories and research findings based on these theories can be applied to schools and universities in Hong Kong and abroad. Potential learners (e.g. in-service and pre-service teachers, counselors, senior school managers, education policy makers; indeed, anyone who is interested in understanding students' holistic development) should be interested in this course because it will equip the learners with knowledge and skills needed not only for promoting the development of their students and other clientele with whom they work but also for achieving a better understanding of themselves.

Assessment: 100% coursework.

MEDD6444 Effective Talk in the Classroom (6 credits)

Effective talk in the classroom is fundamental to student learning. In this course, students will learn: (1) The state-of-the-art theories of effective talk. Students will learn from a growing body of research how effective classroom talk, particularly discussion participants' elaboration of their own ideas and thinking with each other, is related to their engagement and achievement. (2) The application of effective talk. Students will learn how to construct talk situations that promote learning and how to use a list of proven effective talk moves to position the participants as active learners. (3) Analysis and reflection of classroom talk. Students will learn how to analyse and reflect on classroom conversations in a rigorous way. Samples of classroom conversation transcripts and video/audio clips will be annotated using well-selected tools. Upon completion of this course, students are expected to develop knowledge and skills in facilitating effective talk in the classroom and to increase the awareness of continuing professional development in discussion-based teaching.

Assessment: 100% coursework.

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13. SCIENCE EDUCATION

This specialism aims to develop teachers' understanding of various issues and global trends in science education (e.g. STEM education) to enable them to contribute more effectively towards initiating, designing and implementing innovative teaching in science education in Hong Kong or worldwide. The specialism also aims at equipping teachers with the knowledge and skills in planning and implementing STEM education.

Candidates are required to complete the 4 specialist courses and a specialist elective course MEDD8862 Classroom Practice of STEM Education two elective courses (6 credits each), and an option of a Research Project (12 credits) or a Professional Portfolio (12 credits).

MEDD6467 Teaching and Learning in Science (6 credits)

This course gives an overview of theories and research on the teaching and learning of science. It begins with an overview of students' common difficulties in learning science. Findings in children's understanding of science over the school years will be considered in light of a range of learning theories. Issues relating to approaches to teaching science including use of analogies, diagrams, modelling and mental visualisation will be discussed. In addition, examples of investigation of teachers' pedagogical content knowledge, beliefs, professional noticing, assessment related to the teaching and learning of science will be examined.

Assessment: 100% coursework.

MEDD6469 Trends and Issues of Science Education (6 credits)

This course looks at major trends and issues in science education with particular reference to the following issues: gender, sociocultural perspective, language issues (teaching science to second language learners, language across the curriculum), nature of talk through different theoretical perspectives (between teacher and students, between students and students), learning progression of key scientific ideas at different levels of study, attitude towards science and school science, transition between primary and secondary school science (in terms of, e.g. language and conceptual demands). It also examines the role of mobile digital technology in shaping the goals and means of developing science instructions and building learning environments.

Assessment: 100% coursework.

MEDD8644 Assessment in Science Education (6 credits)

This course considers the importance of assessment for learning and quality assessment of learning in science. A wide range of strategies, such as questioning, practical work, scientific inquiry, probing and building student conceptual understanding, skills and attitudes in doing science, will be examined. Assessment literacy related to setting of assessment items and assessment rubrics will be discussed.

Assessment: 100% coursework.

MEDD8897 Science Curriculum: Concepts and Themes (6 credits)

This course discusses the frequently encountered concepts and themes in the scholarly and professional dialogues on the science curriculums. After an initial survey of the different schools of thought on the aims and roles of science education, the key concepts and significant controversies associated with the four major categories of learning goals, namely, learning science, doing science, learning about science, and addressing socio-scientific issues will be considered. Subsequently, selected contemporary topics (e.g. crosscutting concepts, interdisciplinary STEM education, out-of-school science learning) will be explored. It is expected that students' sphere of curricular concern will be gradually expanded throughout the course to become scholarly and transformative curriculum developers and leaders.

Assessment: 100% coursework.

Specialist Elective Course

MEDD8862 Classroom Practice of STEM Education (6 credits)

This course adopts the integration of scientific inquiry and engineering practice model (Weber and Sansone, 2016) and aims to introduce a variety of cross disciplinary hands-on and mind-on STEM exemplars activities/projects (e.g. monocular telescope making, conducting dough inquiry learning project, molecular gastronomy menu) which not only enhance students' generic skills, such as problem-solving skills, critical thinking skills and creativity etc., but also facilitate students' innovative designs

through practical solutions. Besides, how Micro:bit, Arduino and other e-learning tools can be introduced and integrated into existing science and STEM curriculum pragmatically so as to enhance students' learning and teachers' teaching will be discussed. The course aims to promote teachers' capacity to promote STEM education both within and beyond the classroom.

Assessment: 100% coursework.

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14. STEM EDUCATION

This specialism aims to equip education students with an in-depth understanding of theoretical and practical issues surrounding STEM education. The specialism will explore philosophy, theories, learning design, technologies and policy at local and international level with respect to STEM. Specific theoretical constructs will be examined in the specialism with a focus on developing further research agenda at graduate level, e.g. STEM literacies, learning design, levels of integration, computational thinking, and design thinking.

Candidates are required to complete the 4 specialist courses and a specialist elective course MEDD8896 Computational Thinking and Education two elective courses (6 credits each), and an option of a Research Project (12 credits) or a Professional Portfolio (12 credits).

MEDD8859 Learning, Teaching and Assessment in STEM Education (6 credits)

As an introductory course of the STEM education specialism, this course is aimed at looking at integrated STEM education from its trends, models and theoretical perspectives, conceptualising STEM and contextualising it within the education and broader society, and how these theories inform its learning, teaching and assessment. Particular focus will be given to the relevant learning approaches grounding learning designs for integrated STEM education (e.g. self-regulated learning, scientific investigation, inquiry-based learning, etc.) and the challenges encountered, especially when designing assessment plans for students, through case studies of related learning designs.

Assessment: 100% coursework.

MEDD8860 Emerging Technologies in STEM Education (6 credits)

This course explores a broad range of current and emerging tools, practices and themes in STEM education. Also, the course will review current and future research trends in emerging tools, practices and themes in STEM Education. The course begins by exploring the historical development of cross-disciplinary integration in STEM education, in order to equip students with an overall picture on the types and trends of digital technology used for delivering STEM education in the past, present and future classrooms.

Assessment: 100% coursework.

MEDD8894 Design Thinking and Education (6 credits)

The design has been practised for ages in the world: bridges and buildings, machines, automobiles, spaceships, monuments, metro systems, artwork, every-day things and many other solution-centric end-products. Innovative designers apply learning-centric creative practices to build meaningful, effective and robust solutions for education. Design is a way of thinking and approaching fundamental issues by using knowledge from across disciplines and developing a transdisciplinary methodology in solving problems facing us in the contemporary world and the future. Learning by design is an approach that can enable students to bring their disciplinary knowledge and methodologies together in STEM Education. Learning by design promotes design thinking, applying disciplinary concepts, transdisciplinary methodologies and technologies in problem-solving. As such, it is a pedagogical

approach led by the design thinking process comprised of 6 distinct phases: emphasising, defining, ideating, prototyping, testing and implementing innovative solutions.

Assessment: 100% coursework.

MEDD8895 STEM across the Curriculum and the Society (6 credits)

Cross-disciplinary integration is a central concept to STEM education. This course is aimed at looking at various models and approaches (e.g. discipline-focused, interdisciplinary, transdisciplinary, STEAM, STREAM) for developing integrated STEM curricula, among and beyond STEM-related disciplines (e.g. arts, languages, and humanities etc) to strengthen the coherence and collaboration among teachers of different disciplines. Critical reviews of the various integrated STEM curricula in Hong Kong and abroad are included to facilitate students to appreciate the good practices, realise the challenges involved, and examine outcomes when learning in these ways. Students have opportunities to design and develop integrated STEM curricula for the learning and teaching contexts they are familiar with. Besides discussing STEM across the curriculum, the role of STEM education in modern society is also discussed to facilitate students to understand its implications for society.

Assessment: 100% coursework.

Specialist Elective Course

MEDD8896 Computational Thinking and Education (6 credits)

Computational thinking has been considered one of the most important problem-solving competence in 21st century, and its cognitive process becomes fundamental to the development of human intelligence in solving advanced problems in STEM, for example, artificial intelligence and many other technologies are the outcomes of solving computational problems using computational thinking. Many educators and teachers may believe that computational thinking is equivalent to programming, which leads to the pure teaching of programming in schools. Computational thinking goes beyond programming skills, where the basic components that form its thinking process are not only for solving programming problems, but also empowering learners to be competent in dealing with interdisciplinary challenges in STEM. Computational thinking could also help learners develop other 21st century skills, such as creative thinking, communication, and collaboration. To equip learners with ability to solve computational-related problems existing in STEM, schools and teachers need to rethink what computational thinking is, and how computational thinking can be infused in school's STEM curriculum so that education can respond to the needs of future generation in dealing with computation-related issues. This course will offer students a stage to reimagine what computational thinking is and will be.

Assessment: 100% coursework.

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15. TEACHING CHINESE AS A SECOND LANGUAGE 中文第二語言教學

This specialism is designed for pre-service or in-service Chinese language teachers in primary or secondary schools, who want to equip themselves with research and teach Chinese in various global contexts, including teaching Chinese as a second or foreign language. The programme connects theory and practice, and focuses on the issues related to Chinese as a second language pedagogy, curriculum design, assessment and classroom research. The programme aims at developing qualified TCSL teachers who are versed in various international curricular, with a particular focus on the IB curriculum.

Candidates are required to complete the 4 specialist courses and a specialist elective course MEDD7104 Integrating the IB Philosophy into Chinese Language Teaching, two elective courses (6 credits each), and an option of a Research Project (12 credits) or a Professional Portfolio (12 credits).

MEDD6051 Teaching Chinese Language in International Contexts [對外漢語教學] (6 credits)

The course provides a general overview of the major topics relating to second/foreign language education, focusing on the theory and pedagogy of teaching Chinese as a second/foreign language in the international contexts. It presents an overview of second language acquisition theories and second language pedagogy, and explores the issues around designing and supporting second language and culture learning experience in the classroom. Moreover, the course provides an overview of various levels of local curriculum in Hong Kong and international standards such as ACTFL standards and CEFR frameworks, making reference to the teaching of other curriculum, such as IB, AP, GCSE curriculum, including an analysis of the curriculum design, teaching methodologies, learners and learning resources, course assessment guidelines required for those curricula. It aims to help teachers make Chinese language teaching and learning maximally effective in Hong Kong and international contexts through an understanding of sound principles of language teaching and learning. In this course, we will begin with a brief overview of how people learn and how people learn a language grounded in cognitive and sociocultural approaches. Language teaching methods will be followed by focusing on specific skills such as oral and written communication modalities, as well as how to create learner-centered environments to foster independent and collaborative learning. We will then look at language teaching specifically from aspects of learning environment design, instruction, assessment and classroom management. The course aims to provide students with an understanding of issues related to teaching Chinese in the international context through: (1) Exploring second language acquisition theories and pedagogies, (2) Examining international curriculums such as IB, GCSE, AP, and (3) Discussing issues related to designing and managing Chinese language learning and teaching experience.

Assessment: 100% coursework.

MEDD6052 Chinese (L2) Assessment and Reporting [中文第二語言教學評估與報告] (6 credits)

This course focuses on the integral role of assessment and reporting for L2 Chinese learning and teaching in the international/IB school context. It will provide an overview of norm and criterion-based assessment and referencing, formative and summative assessment and the relationship between reporting, feedback and improved student learning. It will also introduce a range of assessment mechanisms, tools, reporting strategies and analyse their role in promoting assessment for learning. The course aims to develop participants' theoretical and practical understanding of the principles of assessment of L2 Chinese learning, with an emphasis on assessment as a tool to promote student learning and support diverse learning needs. The course is expected to achieve the following objectives: (1) To enhance students' understanding of the integral role of assessment and reporting for L2 Chinese learning and teaching, (2) To understand the key assessment and reporting requirements of the IB Programme, (3) To keep students up to date with the latest development of assessment and reporting in the field of teaching Chinese as a second language, and (4) To enable students to develop effective assessment strategies and reporting mechanisms for learners of different age groups and learning objectives.

Assessment: 100% coursework.

MEDD6054 Chinese (L2) School-Based Curriculum Design [中文第二語言校本課程設計] (6 credits)

This course will provides you with a systematic understanding of school curriculum design and lesson planning. In this course, we will explore IB curriculum at different programmes, and discuss the core of IB curriculum design -- concept-based curriculum. We will also discuss the various issues related to lesson planning. The course is very hands-on, where you will work in groups with your classmates to

design curriculum together and critique each other's unit and lesson design. Students are expected to (1) understand concept-based curriculum design and be able to apply the understanding to design school-based curriculum, and (2) work in groups to design and critique unit and lesson design. It is expected that students will engage in collaborative learning experience through actively contributing their opinions and helping each other along the learning process. The course has the following objectives in mind: (1) To equip students with the theoretical background about curriculum design and implementation, (2) To familiarise students with current foreign language curriculum design frameworks and models, (3) To familiarise students with IB curriculums and concept-based curriculum design, and (4) To engage students in discussions about issues related to curriculum design and implementation.

Assessment: 100% coursework.

MEDD6055 Research and Teaching Practice in Second Language Classrooms [中文第二語言教學研究與實踐] (6 credits)

In order to integrate knowledge with real school experience, this course provides opportunity for students with experience in the real second language classroom aside from getting to understand the theories on second language teaching and learning. The aim is to familiarise students with day-to-day teaching practice at international schools in Hong Kong, by engaging students in actual teaching at international schools in Hong Kong, to identify and tackle students' learning difficulties. This course will be a strong theoretical and practical emphasis on the development of students' research and teaching ability on Chinese L2 teaching and learning in classrooms. During their school experience, student-teachers are required to identify their students' learning difficulty; using appropriate theories to analyse it; design and conduct a small-scale action research with the application of suitable teaching strategies to deal with the identified learning difficulties. The student-teachers will conduct classroom observation, and compile a self-directed portfolio based on data collected and experience encountered in their action research. This portfolio contains a journal, lesson plans and teaching materials developed by the student-teachers during the practicum, self-reflections on lessons taught and feedback from the students. The course aims to provide students with an understanding of research methodology, and how to use educational research to support day-to-day teaching practice of Chinese as a second language: (1) Identify major issues and problems in day-to-day teaching practice of Chinese as a second language classrooms, (2) Demonstrate the ability to write a small-scale action research proposal with theoretical basis and application of pedagogies, to resolve identified major issues and problems in teaching of Chinese as a second language classrooms, and (3) Demonstrate the ability to conduct research project, self-reflective practice and to report the research findings.

Assessment: 100% coursework.

Specialist Elective Course

MEDD7104 Integrating the IB Philosophy into Chinese Language Teaching [融合國際文憑課程理念的中文教學] (6 credits)

This elective includes an in-depth exploration into how to integrate IB Diploma Programme philosophy in curriculum design, teaching and learning, assessment and research. This course provides an overview of the principles underpinning the IB's four programmes, such as inquiry-based learning, concept-driven curriculum, disciplinary, interdisciplinary and transdisciplinary approaches to teaching and learning. Students will also be engaged in exploring various pedagogies and technological tools to integrate IB philosophy and learner profiles in language and culture instruction. Students will explore Theory of Knowledge, Creativity, Activity and Service, Extended Essay and Chinese language education. Furthermore, the course will also enhance students' understanding on how to reflect IB philosophy and learner profile in assessment design and how to design assessments that reflect IB subject matter specific assessment criteria. In this course, students will not only understand the

integration of IB philosophy in various aspects of instruction, but have a deep reflection and review on education values and beliefs.

Assessment: 100% coursework.

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16. TEACHING CHINESE LANGUAGE AND LITERATURE IN INTERNATIONAL EDUCATION 國際教育中國語言及文學教學

The specialism equips the participants with knowledge and pedagogical skills in teaching Chinese language and literature. It focuses on the International Baccalaureate (IB) Diploma Programme (DP) and other international curricula. It aims to enable participants to become effective teachers in international education, thus building their capacity to develop inquiring, knowledgeable and globally minded young people. It is a specialism requiring both coursework and a professional portfolio. The course arranges teaching practicum experience in IB schools for pre-service teachers. The participants will explore theories and practices of teaching Chinese language and Chinese literature requiring critical thinking about teaching and learning. This specialism is a course provider of the IB Certificate in Teaching and Learning.

Candidates are required to complete the 4 specialist courses, 3 specialist elective courses, and a Professional Portfolio (12 credits).

MEDD8837 World Literature and New Textualities in International Chinese Education [國際中文教育中的世界文學與新興文本] (6 credits)

In a new era where the world is interconnected both by globalisation and technology, international education programmes are committed to fostering intercultural understanding and new literacies. The IBDP Chinese A course introduces students to a range of texts in order to develop their social, aesthetic, and cultural literacy, as well as communication skills. This course aims to study the theories and practices of teaching translated literary works, literary genres, and new textualities to school learners who are native Chinese speakers. The course prepares students to make independent literary judgements, appreciate literary works from different cultural perspectives, and consider the role that culture plays in making sense of the literary works. With the rapidly evolving text forms, students will also be exploring the learning and teaching of graphic writing, film, network texts and literature, to build a better understanding and deeper appreciation for their learners. Students will also learn how to assess readers' perspectives of world literature and new textualities in the IBDP Chinese A and other international Chinese curricula.

Assessment: 100% coursework.

MEDD8838 Teaching Language and Literature in International Chinese Education [國際中文教育：語言和文學教學] (6 credits)

The course explores the theories and pedagogies of teaching Chinese language and literature to school learners who are native Chinese speakers. The course encourages students to analyse and appreciate both literary and non-literary works from multiple perspectives such as language-based approach, comparative reading of texts and stylistics. The topics include (1) Introduction of the IB language A curriculum, (2) Pedagogic issues on Chinese language and literature teaching, and (3) Theories of assessing students' learning of literature. Students will be able to acquire the skills of designing school-based curriculum which demonstrates the philosophy of IB Chinese language and literature. They are also expected to have a good understanding of the criteria in IB assessments.

Assessment: 100% coursework.

MEDD8839 Literature and the Art of Performance [文學與表演藝術] (6 credits)

This course aims to explore the dynamic relationship between literature and performance. The course covers the interaction between a conventional literary emphasis on close reading, critical discussion and writing and the practical, aesthetic and symbolic elements of performance. Students are expected to apply the knowledge they learned about Drama-in-Education (DiE) to transform literature work to performance. This course equips students with the skills to explore critically and imaginatively a range of literary texts and performance possibilities. Students will also learn how to assess readers' deep understanding through performance.

Assessment: 100% coursework.

MEDD8840 Theories of Pedagogy and Teaching Practice [教學法與教學實踐] (6 credits)

This course aims to enhance students' understanding of various theories of innovative pedagogies and strategies associated with teaching Chinese language and literature in various learning contexts, with a particular focus on international schools in Hong Kong. Students will also discuss and practise a wide variety of strategies and techniques for teaching language and literature. It helps students to learn how to create an effective and interactive language classroom. The students are expected to develop and practise language teaching skills and classroom management techniques which they can apply in their teaching practicum in the international school context.

Assessment: 100% coursework.

Specialist Elective Courses

MEDD8841 Integrating the IB Philosophy into Chinese Language and Literature Teaching [融合國際文憑課程理念的中國語言及文學教學] (6 credits)

This course introduces the key elements of IB philosophy and guides students to integrate IB philosophy into curriculum design and instruction of teaching Chinese language and literature. This course provides an overview of the principles underpinning the IB programmes, such as learner profile, inquiry-based learning, concept-driven curriculum, interdisciplinary and transdisciplinary, approaches to teaching and learning. Moreover, students will further explore how Chinese Language and Literature can be integrated into IB Community Projects, Theory of Knowledge and Extended Essay. Students will also be engaged in exploring various pedagogies to integrate IB philosophy and learner profiles in language classrooms. They will be guided on designing and refining Chinese language and literature teaching and learning that reflects the overall IB philosophy. In this course, students will not only understand the integration of IB philosophy in various aspects of instruction, but also have a deep reflection and review on education values and beliefs.

Assessment: 100% coursework.

MEDD8851 Chinese L2 Pedagogy [中文(二語)教學法] (6 credits)

The course provides an overview of the pedagogy of teaching Chinese as a second/foreign language, with a particular focus on the fundamentals of major pedagogical approaches (e.g. task-based language teaching, project-based language teaching, etc.) and the teaching activity designs for different language skill development (e.g. reading instruction, writing instruction, Chinese character instruction, etc.). It discusses the theoretical foundations of the teaching pedagogies and the complexities of pedagogy implementation in the IB curriculum and teaching contexts. It aims to help teachers make Chinese language teaching and learning maximally effective in Hong Kong and international contexts through an understanding of sound principles of language teaching and learning. In this course, we will begin with a brief overview of major second language acquisition theories and its implication for L2 pedagogy,

followed by major L2 pedagogical approaches and the pedagogical design and issues around the development of specific skills in the Chinese L2 context. We will also explore how Chinese L2 teaching could be differentiated to meet diverse learning needs.

Assessment: 100% coursework.

MEDD8852 Chinese L2 Curriculum Design and Assessment [中文(二語)課程設計與評估] (6 credits)

This course focuses on systematic understanding of school curriculum design and the integral role of assessment and reporting for L2 Chinese learning and teaching in the international school context. For curriculum design, an overview of the essential knowledge like concept-driven curriculum, the integration of curriculum (disciplinary, interdisciplinary and transdisciplinary) are introduced. For assessment, topics on norm and criterion-based assessment and referencing, formative and summative assessment and the relationship between reporting, feedback and improved student learning will be discussed. A range of curriculum and assessment design strategies like backward design, scaffolding, differentiated instruction, assessment mechanisms, tools, reporting strategies and analyse their role in promoting assessment for learning.

Assessment: 100% coursework.

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17. TEACHING OF MATHEMATICS IN AN INTERNATIONAL CONTEXT

This specialism is designed for researchers, educators and pre-service or in-service Mathematics teachers in primary or secondary schools, especially those from direct subsidy scheme schools, mainstream schools and international schools, who want to equip themselves to research and teach Mathematics in local as well as various global contexts. The programme caters for practitioners in the teaching of the mathematics curriculum in Hong Kong, making reference to the teaching of other curricula, such as International Baccalaureate (IB), GCSE etc.

Candidates are required to complete the 4 specialist courses, 3 elective courses including at least one of the specialist electives (6 credits each), and an option of a Research Project (12 credits) or a Professional Portfolio (12 credits).

MEDD6381 Integrating IB Philosophy into the Teaching of Chinese Language, Mathematics and Science (6 credits)

This course includes an in-depth exploration into how to integrate IB DP philosophy in curriculum design, teaching and learning, assessment and research. Students will be guided on designing and refining Chinese language/Mathematics/Science curriculum that reflects the overall IB DP philosophy and learner profile and at the same time aligns with the Chinese language/Mathematics/Science curriculum guides. Students will also be engaged in exploring various pedagogies and technological tools to integrate IB philosophy and learner profiles in language and culture instruction. Students will explore TOK, CAS and Extended Essay and Chinese language/Mathematics/Science education. Furthermore, the course will also enhance students' understanding on how to reflect IB philosophy, cross-disciplinary application and learner profile in assessment design and how to design assessments that reflect IB subject matter specific assessment criteria. In this course, students will not only understand the integration of IB philosophy in various aspects of instruction, but also generate a series of research questions around the integration of IB philosophy in instruction.

Assessment: 100% coursework.

MEDD6382 Research and/or Mathematics Teaching Practice in Classrooms (6 credits)

In order to integrate knowledge with real school experience, this course provides opportunity for students with experience in application of IB Philosophy and mathematics teaching in classrooms aside from getting to understand the theories on mathematics teaching and learning. The aim is to familiarise students with day-to-day teaching practice at international minded schools in Hong Kong, by engaging students in actual teaching at international schools in Hong Kong, to identify and tackle students' learning difficulties. This course will be a strong theoretical and practical emphasis on the development of students' research and teaching ability on mathematics teaching and learning in classrooms. During their school experience, student-teachers are required to identify their students' learning difficulty; using appropriate theories to analyse it; design and conduct a small-scale action research with the application of suitable teaching strategies to deal with the identified learning difficulties. The student-teachers will conduct classroom observation, and compile a self-directed portfolio based on data collected and experience encountered in their action research. This portfolio contains a journal, lesson plans and teaching materials developed by the student-teachers during the practicum, self-reflections on lessons taught and feedback from the students.

Assessment: 100% coursework.

MEDD6387 Research into the Teaching and Learning of Mathematics (6 credits)

This course gives an overview of theories and research on the teaching and learning of mathematics. Research in the teaching and learning of some major areas in mathematics such as algebra is reviewed. In addition, examples of investigation of mathematics teacher's pedagogical content knowledge, teacher conception, assessment related to the teaching and learning of mathematics, classroom research, small-scale and large-scale studies will be discussed. The course and assessment are designed in such a way for an introduction to a virtual experience of research culture for mathematics teachers and professionals. It is hoped that in the course the students will read, talk about, reflect upon how research may have an implication in their profession. They are expected to make presentations, plan their own research, and develop an awareness of how a research culture can be an enhancement of their life-long professional development. At the end of the course, students should be able to: (1) be aware of the issues and topics related to research in the teaching and learning of mathematics, (2) carry out literature review for specific issues of interest, reflect and discuss in relation to the local context and their workplace, and (3) write a research proposal for school-based development for the mathematics teaching and learning.

Assessment: 100% coursework.

MEDD6389 The Philosophical, Social and Cultural Aspects of Mathematics Education (6 credits)

This course focuses on the features that characterise mathematics as a distinctive discipline. It explores the relationship between the nature of the discipline, the aims of mathematics education, and the nature of mathematics teaching and learning. The effect on teachers' and students' beliefs and attitudes, and on students' achievement will also be discussed. In addition, this course investigates the social and cultural factors that affect the teaching and learning of mathematics. This includes international comparisons of socio-cultural differences; ethnomathematics from anthropological and utilitarian perspectives; social inequalities including gender issues; and the relationship between language and mathematics. The objectives of the course are to enable students to (1) reflect critically on the features that characterise mathematics as a distinctive discipline, and be aware of the conflicting views on the nature of mathematical knowledge, (2) explore the relationship between the nature of mathematics and the nature of mathematics teaching and learning, (3) explore the social and cultural factors that affect the teaching and learning of mathematics, (4) reflect upon the aims of mathematics education and how mathematics instruction should be conducted, and (5) reflect critically on how teachers' views of mathematics and mathematics education affect their own practice.

Assessment: 100% coursework.

Specialist Elective Courses

MEDD6388 Curriculum Research and Development in Mathematics (6 credits)

This course discusses issues that revolve around the mathematics curriculum and its development in schools. Without limiting the discussion to Hong Kong, a deeper understanding of the issues and concepts concerned with curriculum research and development is expected to be emerging from a better knowledge about the mathematics curricula in various other countries. Important issues to be discussed include: the ongoing development of curriculum in mathematics; current mathematics curriculum projects overseas; the history of the mathematics curriculum; forces that shape the mathematics curriculum in Hong Kong; the relevance of school mathematics; mathematics across the curriculum; assessment in mathematics; school mathematics that caters for individual differences; and diversification and standardisation of the mathematics curriculum.

Assessment: 100% coursework.

MEDD6390 Innovation and Development of Instructional Design in Mathematics (6 credits)

This course focuses on research and development of educational design in mathematics. By analysing cases of pedagogical practice and innovation, students will understand and reflect on principles and theoretical frameworks guiding the process of developing mathematics pedagogy. There will be study of task design, involving different tools and representations, situated in various contexts of mathematics learning, from the perspectives of teachers, designers and researchers. Special attention will be given to the role of digital technology in shaping the goals and means of developing mathematics instructions and building learning environments.

Assessment: 100% coursework.

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18. TEACHING OF SCIENCE IN AN INTERNATIONAL CONTEXT

This specialism is designed for researchers, educators and pre-service or in-service Mathematics teachers in primary or secondary schools, especially those from direct subsidy scheme schools, mainstream schools and international schools, who want to equip themselves to research and teach Mathematics in local as well as various global contexts. The programme caters for practitioners in the teaching of the mathematics curriculum in Hong Kong, making reference to the teaching of other curricula, such as International Baccalaureate (IB), GCSE etc.

Candidates are required to complete the 4 specialist courses and at least one of the specialist elective courses for this specialism. Those elective courses, however, may not be offered every year.

MEDD6381 Integrating IB Philosophy into The Teaching of Chinese Language, Mathematics and Science (6 credits)

This course includes an in-depth exploration into how to integrate IB DP philosophy in curriculum design, teaching and learning, assessment and research. Students will be guided on designing and refining Chinese language/Mathematics/Science curriculum that reflects the overall IB DP philosophy and learner profile and at the same time aligns with the Chinese language/Mathematics/Science curriculum guides. Students will also be engaged in exploring various pedagogies and technological tools to integrate IB philosophy and learner profiles in language and culture instruction. Students will explore TOK, CAS and Extended Essay and Chinese language/Mathematics/Science education. Furthermore, the course will also enhance students' understanding on how to reflect IB philosophy,

cross-disciplinary application and learner profile in assessment design and how to design assessments that reflect IB subject matter specific assessment criteria. In this course, students will not only understand the integration of IB philosophy in various aspects of instruction, but also generate a series of research questions around the integration of IB philosophy in instruction.

Assessment: 100% coursework.

MEDD6467 Teaching and Learning in Science (6 credits)

This course gives an overview of theories and research on the teaching and learning of science. It begins with an overview of students' common difficulties in learning science. Findings in children's understanding of science over the school years will be considered in light of a range of learning theories. Issues relating to approaches to teaching science including use of analogies, diagrams, modelling and mental visualisation will be discussed. In addition, examples of investigation of teachers' pedagogical content knowledge, beliefs, professional noticing, assessment related to the teaching and learning of science will be examined.

Assessment: 100% coursework.

MEDD8806 Research and Science Teaching Practice in Classrooms (6 credits)

The aim of this course is to familiarise students with day-to-day teaching practice at internationally minded schools in Hong Kong, by engaging them in authentic teaching in international/private/DSS schools in Hong Kong, to identify and tackle students' learning difficulties. This course will have a strong theoretical and practical emphasis on the development of students' research and teaching ability concerning science teaching and learning in classrooms during the teaching practicum. During their school experience, student-teachers will be required to identify their students' learning difficulties; using appropriate theories to analyse; design and conduct a small-scale piece of action research with the application of suitable teaching strategies to deal with the identified learning difficulties. The student-teachers will conduct classroom observation, and compile a self-directed portfolio based on data collected and experience encountered in their action research. This portfolio will contain a journal, lesson plans and teaching materials developed by the student-teachers during the practicum, self-reflections on lessons taught and feedback from the students.

Assessment: 100% coursework.

MEDD8807 The Philosophical, Social and Cultural Aspects of Science Education (6 credits)

This course addresses various epistemological perspectives of science, the intricate relationships between science, technology and society, and the roles of representations in conceptual development. It explores the relationship between these features that characterise science as a distinctive discipline, the aims of science education, and the nature of science teaching and learning. This course also investigates students' learning of scientific content in out-of-school settings, and their different approaches to dealing with socio-scientific issues.

Assessment: 100% coursework.

Specialist Elective Courses

MEDD6469 Trends and Issues of Science Education (6 credits)

This course looks at major trends and issues in science education with particular reference to the following issues: gender, sociocultural perspective, language issues (teaching science to second language learners, language across the curriculum), nature of talk through different theoretical perspectives (between teacher and students, between students and students), learning progression of

key scientific ideas at different levels of study, attitude towards science and school science, transition between primary and secondary school science (in terms of, e.g. language and conceptual demands). It also examines the role of mobile digital technology in shaping the goals and means of developing science instructions and building learning environments.

Assessment: 100% coursework.

MEDD8897 Science Curriculum: Concepts and Themes (6 credits)

This course discusses the frequently encountered concepts and themes in the scholarly and professional dialogues on the science curriculums. After an initial survey of the different schools of thought on the aims and roles of science education, the key concepts and significant controversies associated with the four major categories of learning goals, namely, learning science, doing science, learning about science, and addressing socio-scientific issues will be considered. Subsequently, selected contemporary topics (e.g. crosscutting concepts, interdisciplinary STEM education, out-of-school science learning) will be explored. It is expected that students' sphere of curricular concern will be gradually expanded throughout the course to become scholarly and transformative curriculum developers and leaders.

Assessment: 100% coursework.

GENERAL ELECTIVE COURSES

Candidates, who are required to take general elective courses, can choose from a list of general elective courses. Candidates who choose to do a research project for their capstone are required to choose at least one of the electives related to Advanced Research Methods. Not all of the courses listed below will be offered every year.

Advanced Research Methods

MEDD8815 Introduction to Statistical Methods (6 credits)

This course is designed to introduce students to the most commonly used statistical methods in educational and social science research. No prior knowledge of statistics is required, but essentials of arithmetic and basic algebra will be used throughout the course. Topics covered in this course include descriptive statistics, graphical representations, correlation, regression, basic probability, sampling distributions, confidence intervals, hypothesis testing, t-tests, chi-square test, analysis of variance, regression, and classical psychometric analysis.

Assessment: 100% coursework.

Advanced Research Methods

MEDD8886 Qualitative Methods: Research Design, Data Collection and Analysis (6 credits)

The purpose of this course is to equip students with the skills, techniques and knowledge necessary to undertake independent research using qualitative research approaches. The course will explore in greater depth the issues related to subjectivity, trustworthiness, validity, positionality, access, role and ethics in qualitative research. The class will combine lectures, group discussions, individual and group hands-on activities. More specifically, this course will introduce students to qualitative research approaches in educational research by focusing on key aspects, such as conceptualisation, research design, data collection, analysis and reporting. Throughout the course students will be able to learn

about the different qualitative designs and data collection strategies, to examine the ways how to organise and represent qualitative data, to apply the skills acquired in this course to critically analyse qualitative research studies.

Assessment: 100% coursework.

Advanced Research Methods

MEDD8887 Narrative Analysis in Education (6 credits)

This course will teach students to analyse how people use stories to make sense of their identities (by themselves and with others) and to accomplish social and institutional goals within the context of education. Since stories can be used to examine just about any topic, we will study "big stories" (how interviewees talk about their life histories of schooling), "small stories" (how the stories told in everyday interactions in classrooms, school hallways, and teachers' staff rooms accomplish social action), and narrative content online (e.g. blogs, discussions on social media, etc. in which people narrate educational experiences which are responded to by global audiences). Course activities will lay the foundation for a final paper applying narrative analysis to interview, ethnographic, and/or social media data. Small assignments throughout the semester will prepare students to collect and analyse their data, and students will also participate in workshops and presentations to help each other make sense of their findings.

Assessment: 100% coursework.

Advanced Research Methods

MEDD8888 Methods for Evaluation Research in Education (6 credits)

This course includes a combination of theory and practice in methods of research for evaluation of teaching, program or intervention in educational contexts. It introduces students to quantitative, qualitative, and mixed-methods that can be integrated into their own research studies. It also prepares students to develop their capability in designing an evaluation research and choose the most appropriate analytical techniques for the purposes of their studies. A thorough understanding of research skills will prepare students to become a competent researcher in education.

Assessment: 100% coursework.

Advanced Research Methods

MEDD8892 Statistical Methods in Educational Research (6 credits)

This course is designed to provide an overview of several popular statistical methods in educational research. The goal of the course is to offer basic knowledge and techniques required to analyse educational data. The emphasis will be on how to use and interpret the results from the statistical analyses. The topics include (1) reliability and validity in survey-based research, (2) descriptive statistics, (3) correlation and causation, (4) multiple regression, (5) categorical predictors, (6) interactions and quadratic effects, (7) factor analysis, and (8) multi-level modeling. This course will illustrate how to use R software to carry out most statistical analyses and graphics covered in this course.

Prerequisite: Previous enrolment in MEDD8815 Introduction to Statistical Methods

Assessment: 100% coursework.

Advanced Research Methods

MEDD8898 Exploring Written Discourse in Education (6 credits)

This course with updated teaching content and learning materials aims to cater for the professional and research interests of MEd students from different specialisms. Insights drawn from the disciplinary areas of genre studies discourse analysis, and corpus linguistics will provide the theoretical and methodological foundation for the course. Theories and analytical perspectives offered by these fields of studies will be examined through studying and discussing weekly reading assignments (book chapters and academic journal articles). Topics to be covered in the course will include: understanding and investigating intertextuality, interrelatedness of genres, hybridity and interdiscursivity, rhetorical move analysis and its integration with ethnographic methods, and corpus methods. The students are expected to create a learning community where they help each other to learn from the readings; engage in hands-on analysis of written texts, group presentations, and sharing on Moodle; give and receive feedback; and learn from each other in a supportive environment. The course will be useful for students who are interested in developing new perspectives on literacy education in pre-tertiary school contexts, or researching written discourse in educational or professional contexts, or teaching academic literacy at the tertiary level.

Assessment: 100% coursework.

Advanced Research Methods

MEDD8899 Advanced Statistical Methods in Educational Research (6 credits)

This course is designed to provide an overview of several advanced statistical methods in educational research. The goal of the course is to offer basic knowledge and techniques required to analyse educational data. The emphasis will be on how to use and interpret the results from the statistical analyses. The topics include (1) reliability and validity in survey-based research, (2) descriptive statistics, (3) correlation and causation, (4) multiple regression, (5) categorical predictors, (6) interactions and quadratic effects, (7) factor analysis, and (8) multi-level modeling. This course will illustrate how to use R software to carry out most statistical analyses and graphics covered in this course. This course aims to prepare students with fundamental knowledge and skills necessary to perform advanced statistical analyses, to interpret the results from the analyses, to effectively present results in tables and figures, and to apply appropriate strategies to address questions that arise in educational research and practice.

Assessment: 100% coursework.

Advanced Research Methods

MEDD8900 Analysing Textual and Documentary Data in Qualitative Research (6 credits)

Learning how to utilise (pre-existing) textual and documentary data to conduct high-quality research has become an essential skill that MEd students should master. This course will introduce a range of qualitative methods and approaches that can be employed in handling textual/documentary data in a typically qualitative research project in the discipline of education. The analytical strategies will be useful when textual/documentary data are either the dominant form of data or among the several types of data in a project, so that one can also select from the introduced approaches and combine them with

other methods of data analysis in a project. The topics to be covered in the course include the following: content analysis, corpus methods, using documents as data, analysing documents in social contexts intertextual analysis, discourse approach, and historical perspective. Learning from sample studies and applying the discussed methods to designing research in one's own educational or professional contexts will be emphasised in the course.

Assessment: 100% coursework.

Advanced Research Methods

MEDD8901 Conducting Mixed Methods Research and Action Research in Your Schools (6 credits)

Though both mixed methods research (e.g. conduct pre-/post-test/survey then interviews) and action research can be important to improve learning, teaching and schools, teachers, who are usually the practitioners and investigators at the same time, are commonly unfamiliar with conducting these two research designs. By discussing various practical knowledge and skills of the related data collection and analysis methods, the course aims to develop an understanding of the principles and strategies in order to conduct more valid and reliable mixed methods research and action research in schools the teacher participants are working in. The course is suitable for K-12 teachers, school leaders, or educators who have an interest to conduct these two research designs to bring an improvement to professional practice in schools. Prospective education researchers can find this course useful to enhance their knowledge and skills of the related research methodologies, especially through the various opportunities of appreciating and criticising journal papers using these two research designs.

Assessment: 100% coursework.

Advanced Research Methods

MEDD8905 Introduction to Social Network Analysis Using Python (6 credits)

This course will introduce social network analysis using a more sophisticated methodological tool. This is because the tenets of social network analysis will be analysed through the coding power of Python programming, taught in a way that is easier to grasp for students without prior programming experience. The first part of the course covers essential social network theoretical fundamentals and Python programming elements, such as data types, operators, and functions, and introduces Python ad-hoc libraries. Then, the course presents what network analysis is and the importance of modelling phenomena as networks, accurately presenting approaches to measure the structure of networks and the characteristics of nodes and flows. Real data applications will be shown during classes with reference to different contexts (bibliometric citation data and education related data are two examples, but others will be provided outside educational settings). Eventually, the course provides students the notions to graphically represent network data and to experience programming themselves.

Assessment: 100% coursework.

Advanced Research Methods

MEDD8907 Statistical Analyses for Advancing Educational Equity and Social Justice (6 credits)

This course is designed to equip students with diverse statistical tools to advance equality, equity, and

social justice in education. The specific topics include the concepts of (in)equality, equity, and social justice explored in quantitative studies, categorical variables that characterise different demographic features (e.g. race and ethnicity, gender, socioeconomic status, sexual orientation, immigration status), statistical interaction terms, and fundamental statistical methods for advancing educational equity, including ANOVA (Analysis of Variance), ANCOVA (Analysis of Covariance), MANOVA (Multivariate Analysis of Variance), MANCOVA (Multivariate Analysis of Variance), and regression and logistical regression analysis using categorical variables and statistical interaction terms. This course will illustrate how to use R software to carry out most statistical analyses and graphics covered in this course. This course aims to prepare students with fundamental knowledge and skills necessary to analyse quantitative data, to interpret the results from the analyses, to effectively present results in tables and figures, and to apply appropriate strategies to reveal patterns of educational inequality and advance equity and social justice.

Assessment: 100% coursework.

Advanced Research Methods

MEDD8908 Foundations of Qualitative Education Research: Concepts, Strategies and Methods (6 credits)

The purpose of this course is to provide students with foundational understandings of qualitative research and necessary knowledge for conducting qualitative education research. The course is divided into three broad parts: (1) looks at certain foundational philosophical and methodological discussions in qualitative education research. Specifically, it examines in-depth philosophical perspectives of education research and five important qualitative research approaches (i.e. ethnography, grounded theory, action research, phenomenological research, and narrative research), (2) asks the question of how to carry out "good" qualitative research. It discusses important aspects in making a qualitative study "good", including ethics, rigour and positionality, and explores how to propose good research questions, and (3) introduces a few qualitative research methods that are commonly employed in education research. They are interviews, observations, and participatory methods.

Assessment: 100% coursework.

Advanced Research Methods

MEDD8910 Introduction to Regression Analysis and Data Visualisation (6 credits)

This course will cover a number of regression methods and data visualisation using R. The emphasis will be on how to do data analysis using R as well as how to present and interpret the results from regression analysis. The topics include (1) R programming and visualisation, (2) descriptive statistics, (3) correlation and causation, (4) hypothesis testing, (5) simple regression, (6) multiple regression, (7) categorical predictors, and (8) interactions and quadratic effects. This course will illustrate how to use R software to carry out most statistical analyses and graphics covered in this course.

Assessment: 100% coursework.

Advanced Research Methods

MEDD8911 Qualitative Research Synthesis (6 credits)

This course focuses on qualitative research synthesis. Systematic literature reviews and meta-analyses

are common ways to summarise the evidence of earlier educational research. However, both of these methods usually require a trained team of experts and a long period of time. Also, these methods represent a positivist approach to educational research: they often aim to find "the right answers" or "effect sizes" without carefully explaining "what works", "under what circumstances", "for whom" and "why". This course thus focuses on qualitative methods for synthesising - not just summarising - earlier educational research. Examples of qualitative types of literature reviews are scoping reviews, critical reviews and meta-ethnographies: the course will introduce these varying methodologies. The course provides practical tools for both searching the literature and analysing research outputs through qualitative methods. Qualitative syntheses do not only aim at synthesising the results of earlier studies but to analyse these studies as socially, culturally and historically situated artefacts. In this course, we will learn how to analyse scholarly research as a part of the broader ecosystems of education.

Assessment: 100% coursework.

MEDD6248 Theories and Practices in Counselling and Group Guidance (6 credits)

The course examines theories and practices in counseling and group guidance in schools. Content will include the following topics: counseling in a school setting; counseling as a helping process; theoretical approaches to counseling; beginning and developing a counseling relationship; career counseling; assessment in counseling; ethical issues in counseling; theories of group guidance and their implementation in schools; group leadership skills; peer counseling; life skills and leadership training; large-group guidance in the classroom and beyond. Selected case studies of counseling and group guidance in local schools will be examined. The course is relevant to all teachers and guidance personnel who need to apply counseling skills in their teaching and guidance activities.

Assessment: 100% coursework

MEDD6609 Information Technology and Educational Leadership (6 credits)

This course provides students with the necessary knowledge and working methods to implement local IT policies and strategies at the institutional level. The course offers a comparative perspective for benchmarking local and international practices and identifies contemporary leadership issues concerning the implementation of information technology in education across multiple levels. It situates leadership issues within the broader literature on pedagogical innovation and educational change, and discusses contemporary leadership issues in the implementation of ICT in education at different levels of the education ecosystem.

Assessment: 100% coursework.

MEDD7102 Pedagogical Frameworks for Mathematics, Science and Related Subjects (6 credits)

There are a variety of pedagogy and theories employed in studies for teaching and learning. This course aims to various popular pedagogical frameworks to teachers so that they can appreciate pedagogical frameworks, apply them to their practice and enhance their critical evaluation of classroom teaching. During the course, examples from mathematics and science subjects will be used for illustration. It will cover: (1) Visualisation in science and mathematics, (2) Understanding via the framework of dynamic multiple representations, (3) Structure of Observed Learning Outcomes (SOLO) taxonomy and Bloom Taxonomy for assessment, design of tasks and analysis of outcomes, (4) Application of theories in teaching, (e.g. self-directed learning, variation, etc), and (5) Analysis of lessons from a researcher's perspective.

Assessment: 100% coursework.

MEDD7117 Drama Appreciation and Teaching (6 credits)

The course provides students with the opportunity to appreciate classic Western drama and modern Chinese plays. It aims to familiarise students with the key concepts of drama such as themes, characters, actions, the art of language, and the underlying cultural meanings. Students will compare related works and seek to understand the main schools in dramatic history. The course also explores theories of drama developed from the West, for example imitation, the concept behind tragedy and comedy, dramatic structure, and the art of the theatre as an aesthetic experience. Another crucial element of this course is the teaching of drama, and using drama as a pedagogy to facilitate teaching and learning. This course encourages critical engagement and creation in drama learning. Students will enhance their learning and pedagogy by practicing useful conventions such as reader's theatre, monologue, conscious alley, in-role writing, stage performance, dramatic strategies, and comparative reading. By taking this course, learners will be equipped with the knowledge to teach electives "Appreciation of Drama Literature" and "Drama Workshop" in the NSS Chinese curriculum, language and literature classes, as well as students learning Chinese as a second language in schools. Teachers can also transfer the approaches to educational drama into their teaching and learning of other subject areas, such as Chinese History, History, and Civic Education, for greater learning motivation and more in-depth understanding of the topics.

Assessment: 100% coursework.

MEDD7124 Individual and Home Predictors of Students' Academic Achievement (6 credits)

This course examines the research to-date on key student and home influences on academic achievement. The design of the course is premised on the belief that 21st century educators should be conversant with the state-of-the-art scientific knowledge on what really matters in affecting student learning and achievement, and be able to critically evaluate and leverage on the different sources of influences to complement their teaching in the school. The student-level psychological predictors that will be discussed in the course include educational stages, gender, self-concept, and motivation. The home-level predictors to be examined will include socioeconomic status, cultural capital, home environment, and parental involvement.

Assessment: 100% coursework.

MEDD8666 Abnormal Psychology and Positive Psychology (6 credits)

The course will focus on the theory and research about abnormal psychology and positive psychology. Participants will learn about some common mental disorders in the student populations and how positive psychology can help individuals improve their mental well-being. Participants will be encouraged to explore how the current research may be applicable to their own lives and support the positive development of students. Topics will include "anxiety disorder", "depression", "attention deficit/hyperactivity disorder", "optimism", "gratitude", "forgiveness", etc. Positive interventions to improve well-being will be examined.

Assessment: 100% coursework.

MEDD8669 Teacher and Classroom Predictors of Students' Academic Achievement (6 credits)

This course examines the research to-date on key teacher and classroom predictors of students' academic achievement. The design of the course is premised on the philosophy that first, educators should be aware of the importance of classroom compositional and within-class socio-emotional factors that may appear to be distally related to, but have been found to have a substantive impact on student achievement. The course is also designed with the belief that empowered educators should be conversant with the state-of-the-art scientific knowledge on what really matters in affecting student learning and achievement, and be able to critically evaluate and leverage on the different sources of influences (academic and non-academic) to complement their teaching in the school. The predictors that will be discussed in the course include teachers' expectations, teacher-student relationships; students' peer influences, school socioeconomic status, ability grouping, class size, computer-enabled teaching-learning, and IT integration in schools. Throughout the course, course participants will be acquainted with results of published meta-analyses interrogating how these variables predicted student achievement.

Assessment: 100% coursework.

MEDD8678 Counselling Process, Ethics and Skills (6 credits)

This course will introduce students to the basic processes, ethics and skills of counselling applicable in schools or other educational settings. Knowledge and understanding of how a counselling relationship develops over time (process) will be focused on and facilitated within a workshop style delivery. Personal development of the course participants will be encouraged through many opportunities to observe, practice skills and reflect on personal interaction and process. Topics will include skills for engaging student, assessment, goal setting and action planning, ethics in counselling, skills for developing helping relationship, skills in managing crisis, and skills for ending the counselling relationship. The course is relevant to all teachers and guidance personnel who wish to enhance their counselling competencies. Participants are expected to engage actively in experiential learning activities and reflection.

Assessment: 100% coursework.

MEDD8679 Counselling Assessment and Interventions (6 credits)

This course will introduce students to the basic principles and goals of psychological, and educational assessment, as well as evidence-based interventions applicable in schools or other educational settings. Topics will include: assessment, methods, interpretation and use of the assessment results, assessment in programme evaluation, and evidence-based interventions for students at risks (including those with emotional behavioral, social, and motivational issues). The course is relevant to all teachers and guidance personnel who wish to enhance their counselling competencies. Participants are expected to engage actively in experiential learning activities and reflection.

Assessment: 100% coursework.

MEDD8802 Sociology of Education: Classic and Contemporary Theories (6 credits)

This course examines sociological theories, both classic and contemporary, and places them in an East-West context for the study of educational institutions and systems. The main objective of this course is to provide a disciplinary grounding to students in the sociology of education. The course includes an examination and application of the main sociological concepts in various cultural and social contexts. The ultimate aim is to employ the sociology of education to strengthen conceptual skills for research

development of students. Case studies from the lecturer's research in Hong Kong, Mainland China, and other countries in Asia will be used to discuss how to adapt both concepts and methods to policy research in education. In sum, this course offers an overview of the fundamental sociological concepts that can guide the analysis of specific educational issues in China.

Assessment: 100% coursework.

MEDD8817 The Learning Brain (6 credits)

This course is designed as a gentle introduction for educators and educational policy makers who wish to become informed by neuroscience findings and to use neuroscience knowledge and skills for solving real world educational problems. Project-based learning is made a key part of this course to enable students to gain a first-hand feel for the nature and limitation of neuroscience. This course will cover four major content areas: (1) the discipline of cognitive neuroscience, which deals with neural mechanisms underlying the functions of perception, action, emotion, memory, language, social engagement, decision-making, etc., (2) fundamentals of learning, which covers basic forms of learning and analysis of neural mechanisms underlying learning at multiple levels, (3) methods of neuroimaging, which covers an overview of a variety of imaging techniques and a more in-depth and hands-on introduction to state of art EEG-based source imaging, and (4) neuroscience research for solving real world educational problems.

Assessment: 100% coursework.

MEDD8826 Technology and Second Language Teaching and Learning (6 credits)

This elective provides students with a fundamental understanding of the principles underlying the use of computer technology in second language learning and teaching as well as hands-on activities of designing technology-enhanced second language teaching and learning experience. It helps students to understand how computer technology can be integrated into language learning and teaching, to become aware of the complex issues around the use of technology in supporting language learning, to develop the ability to critically evaluate language learning technological applications and websites, and to develop the capacity to design and produce computer assisted language learning activities. Students are expected to (1) get familiar with the theoretical background and pedagogical application of different technological platforms and tools for second language learning, (2) be able to evaluate the pedagogical affordances and constraints of different technological applications and platforms, (3) understand what technological application to use for what pedagogical purposes, and (4) design and implement technology-enhanced language learning activities, and understand the key issues that need to be paid attention to ensure the effective implementation of technology-enhanced learning activities. It is expected that throughout this course students will engage in a collaborative learning experience, actively contributing their opinions and helping each other along the learning process.

Assessment: 100% coursework.

MEDD8829 Effective Strategies for Learning and Teaching in Small Class Environment for Primary Education (6 credits)

Effective strategies to enhance learning and teaching in a small class environment for teachers in primary schools have been well discussed. In alignment with recent curriculum development and promotion of various strategies, such as, e-learning, catering for diversity, group work, STEM, and self-directed learning; there are a lot of development in effective teaching and learning strategies in primary schools. The course aims to develop an understanding in the issues arise in small class teaching

environment and strategies for enhancing student learning. Examples of the teaching of different subjects such as mathematics and general studies will be used to illustrate the implementation of various strategies. The course will be suitable for primary teachers of general studies and mathematics and primary/secondary teachers who have an interest to develop an understanding of the impact and pedagogical issues of small class environment in primary education.

Assessment: 100% coursework.

MEDD8831 Nurturing Creativity: Theories and Practices (6 credits)

This course will introduce participants to creativity from both theoretical and practical perspectives. There will be an overview of the key concepts and theories of creativity, as well as discussions on topics such as creativity research, creativity assessment, and the relationship between creativity and other psychological constructs. In addition, participants will explore how creativity can be nurtured in young children and primary and secondary school students. Participants will be equipped with creativity-fostering strategies and techniques to be applied to individuals as well as educational settings. The course is relevant to all teachers and educators who wish to know more about creativity and how it can be nurtured among others. Participants are expected to engage actively in experiential learning activities and reflection.

Assessment: 100% coursework.

MEDD8835 Writing for Academic Success (6 credits)

It is designed to address the perceived difficulties among some MEd students (in particular full-time students from mainland China) in meeting the Master's-level academic writing requirements at an English-dominant university. It is meant to be an extension of the existing Writing Workshops provided by the university's CAES to MEd students. The course subsumes four main topics: (1) learning to read journal articles, (2) tackling strategically important written genres in an MEd programme, (3) writing from sources and citation practices, and (4) publishing from MEd projects. The course has a number of features: (1) it adopts an integrated approach by providing guidance on both the reading and the writing of academic texts, (2) it is evidence-based by drawing upon current research on academic discourse, writing practices, and writing instruction, (3) it addresses both broader issues (structural and lexico-grammatical dimensions of written genres) and sentence-level issues (e.g. grammar and idiomaticity), and (4) it aims to foster learning autonomy among MEd students, in particular through the introduction of the use of corpus methods.

Assessment: 100% coursework.

MEDD8836 Personal Growth of Teachers and Guidance Personnel (6 credits)

This course will provide an overview of major theories, concepts and principles in education and psychology that can be applied to the personal growth and development of teachers and guidance personnel. Different issues related to positive self and identity development, childhood and family relationships, emotional competence, body and wellness as well as the meaning in life will be examined. The course will provide opportunities for students to develop a deeper understanding of their lives and goals, particularly in the context of becoming effective teachers and guidance professionals. The course is relevant to all teachers and guidance personnel who wish to enhance their counselling competencies. Participants are expected to engage actively in experiential learning activities and personal reflections.

Assessment: 100% coursework.

MEDD8860 Emerging Technologies in STEM Education (6 credits)

This course explores a broad range of current and emerging tools, practices and theories in STEM education. Also, the course will review current and future research trends in emerging tools, practices and themes in STEM Education. The course begins by exploring the historical development of cross-disciplinary integration in STEM education, in order to equip students with an overall picture on the types and trends of digital technology used for delivering STEM education in the past, present and future classrooms.

Assessment: 100% coursework.

MEDD8874 Issues in Contemporary Curriculum Development (6 credits)

This course would introduce students to issues in contemporary curriculum development impacting on student learning at international, national/systemic and school levels. These cover debates such as the different conceptions of curriculum, curriculum design, multi-perspectives on curriculum decision-making and processes, globalisation versus contextualisation/decolonisation, the advancement of technology and learning sciences. This course is intended for students from diverse specialisms so that they would have the opportunity of appreciating inter-disciplinary, inter-sectoral, inter-organisational or international tension/collaboration, and contribute their expertise to curriculum development through examining the issues and interacting with each other. The assignment would involve combining the application of theory and practice in an attempt to develop a proposal or an innovation relevant to the experiences and/or interest of the student, or comparing a curriculum between two systems.

Impermissible courses: MEDD6128, MEDD6131, MEDD8819, and MEDD8820

Assessment: 100% coursework.

MEDD8875 Early Childhood Public Policy (6 credits)

This course examines public policies in early childhood in the local and global context. Focusing on government policies aimed at children aged between birth and the age of primary education, it uses a comparative perspective by examining and critically evaluating early childhood policy in several different high-income countries or jurisdictions, including Hong Kong, and also considers the differing context and recent policy developments in low- and middle- income countries. The course discusses different models of early childhood service provision, trends and patterns in differences in rates of service participation and enrolment globally, policies designed to ensure a high quality of service provision, and similarities and differences in child outcomes across the countries studied.

Assessment: 100% coursework.

MEDD8876 Psychology and Education of Gifted and Talented Individuals (6 credits)

The course examines gifted education and the psychology of gifted and talented individuals. Topics will include understanding gifted and talented individuals, gifted education in Hong Kong and other parts of the world, gifted education and education reform, identification of gifted and talented students, multiple intelligences, psychological adjustment, guidance and counselling for gifted students, school-wide enrichment and provisions for talent development, curriculum models and instructional strategies for gifted learners, parenting gifted and talented children, teaching for creativity, programme

development and evaluation, gifted underachievers, social development and moral leadership. Selected case studies and critical issues in implementing gifted programmes will be examined.

Assessment: 100% coursework.

MEDD8877 Social and Emotional Needs of Gifted Individuals (6 credits)

This course provides an overview of the theory, research, and practice related to working with gifted children, specifically focusing on their social and emotional needs. It explores the theoretical underpinnings of psychosocial variables of gifted individuals; introduces models of different instructional approaches to facilitate the affective learning for gifted individuals and curriculum development that is essential for talent development; and covers special populations like underachievement and twice-exceptionality. The role of the teacher in empowering parents on advocacy will also be examined. The course focuses on best practices from theories and research as well as application of these theories in authentic settings, using cases and everyday examples.

Assessment: 100% coursework.

MEDD8881 Learning Design and Technology (6 credits)

This course examines instructional design models and systematic approaches to the design of learning environments and resources. This course introduces instructional design from a theoretical perspective as well as provides students with an opportunity to learn through engaging in the stages of design and development of different learning products. The course aims to create a bridge between traditional approaches to instructional design and more contemporary approaches that involve the use of interactive and collaborative learning environments and tools.

Assessment: 100% coursework.

MEDD8884 Career Counselling and Talent Development in Schools (6 credits)

This course will compare theories and practices of career counselling and talent development programmes in schools in Hong Kong and other parts of the world. Topics will include: individual development planning; student advisory and mentorship schemes; theories of career development; career awareness among children; career exploration among adolescents; career decision making among senior secondary school students and college students; career development of talented students and students with special needs; talent development in schools; theories of talent development; identification of students for talent development programmes; assessment of life career and talent development; career counselling of the exceptionally gifted; family influences; multicultural perspectives; gender issues; life-wide learning; career-related experiences; service learning; programme evaluation and enhancement. The course is relevant to all teachers and guidance personnel who wish to enhance students' career and talent development through subject teaching and co-curricular activities.

Assessment: 100% coursework.

MEDD8889 Strategic Leadership in School Administration and Management for Career Advancement (6 credits)

(This course is not for students specialising in Educational Administration and Management.)

This course is designed to cater for the needs of non-Educational Administration and Management (EAM) specialism teachers who have strong aspiration to be promoted to middle managers or senior leadership such as panel heads or vice principals in the long-run with a proactive and self-driven approach. More specifically, this course is developed to include the possible foundational school administration and management topics, which might be covered in the curriculum framework of School Administration and Management training stated on p.26 of the Education Bureau Circular No. 6/2020 "Implementation of the Recommendation of the Task Force on Professional Development of Teachers".

Key topics or concepts such as Strengths, Weaknesses, Opportunities and Threats (SWOT) for administrative analysis, strategic management in Human Resources Management (HRM), educational leadership for sustainable change management, motivational and power strategies for educational leaders, school-based Planning-Implementation-Evaluation (PIE) for educational excellence, and handling legal issues and assessing crisis in school management would be discussed. Relevant theories, practices and case studies from Asia Pacific, Australia, Europe and North America would be incorporated.

Participants should have strong aspiration to have career advancement at school settings. They would be expected to demonstrate in-depth reflection, versatile integration of theories and practice and stipulate tailor-made action plans for their own intra-school or inter-school promotion.

Assessment: 100% coursework.

MEDD8890 Edu-preneurial Leadership in Continuing Professional Development for Career Advancement (6 credits)

This course is designed to cater for the needs of both Educational Administration and Management (EAM) specialism and non-EAM-specialism teachers who have strong aspiration to be promoted to middle managers or senior leadership such as panel heads or vice principals in the long-run with a proactive and self-driven approach. More specifically, this course is developed to include the possible Teachers' Continuing Professional Development (CPD) topics which might be covered in the curriculum framework of School Administration and Management training stated on p.26 of the Education Bureau Circular No. 6/2020 "Implementation of the Recommendation of the Task Force on Professional Development of Teachers".

Key topics or concepts such as identifying professional development needs of teachers, modes of professional development, fostering schools as vibrant learning organisations, edu-preneurial mentality and strategies of teachers & principals, creating happiness, time and space for CPD, and design-thinking-oriented approaches to the United Nations Sustainable Development Goals (UNSDGs) would be discussed. Relevant theories, practices and case studies from Asia Pacific, Australia, Europe and North America would be incorporated.

Participants should have strong aspiration to have career advancement at school settings. They would be expected to demonstrate in-depth reflection, versatile integration of theories and practice and stipulate tailor-made action plans for their own intra-school or inter-school promotion.

Prerequisite: MEDD8889 (except for students specialising in Educational Administration and Management)

Assessment: 100% coursework.

MEDD8893 Teaching Argumentative Discourse in Chinese Language: A Critical Discussion Perspective (6 credits)

The course aims at equipping Chinese language teachers with knowledge of critical discussion and ability to design, conduct and evaluate learning and teaching of exploratory talk and argumentative discourse to enhance students' Chinese language competence in both oral and written form. The course is designed to explore the relationship between critical thinking and language learning within Chinese key language area. Exploratory talk, critical reading and argumentative writing will be covered to examine role of critical discussion in Chinese language curriculum. The course covers topics include framework of critical discussion, three approaches to reasoning (deductive, inductive, and abductive), Toulmin model of argument components, latest development of argumentation theory with focus on core argumentation schemes (argument from example, cause and effect, analogy, and information source), and pragmatic view of fallacies. The course focuses on applying these topics and concepts to develop activities on exploratory talk and argumentative discourse for promoting students' oral and written language competence. Special attention is given to argument visualisation to make critical thinking visible for fostering students' analytic skill on argument structure of oral and written discourse.

Assessment: 100% coursework.

MEDD8902 Ethics and Leadership (6 credits)

This course is designed to enable students to reflect more deeply on the role that leadership plays in fulfilling the ethical purposes of education. The cousre will encourage students to take a comprehensive view of the normative dimensions of education. Schools have a nurturing role to play. Educational leaders have the duty and responsibility to be clear about their personal and professional values and ethical commitments. And they have the further responsibility of creating an environment that contributes to the moral development of students, clients and other stakeholders. But what does it mean to develop a good person as well as a good citizen? What are the tensions leaders have to confront and negotiate in pursuing the goal of holistic development of students/clients/other stakeholders? How should leaders deal with potential clashes of values in terms of their obligations to self, the profession, as well as the organisation? In addition to an introduction to basic ethical concepts and theories, students in this course will explore various normative challenges of leadership in the context of education and other areas of professional life.

Assessment: 100% coursework.

MEDD8903 Introduction to Educational and Psychological Measurement (6 credits)

This course is designed to provide an overview of the fundamental topics and issues in educational and psychological testing and measurement. The goal of the course is to offer basic knowledge and techniques required to analyse educational and psychological tests from a psychometric perspective. A course in introductory statistics is required for this course. The topics include principles of educational and psychological measurement, such as scaling, reliability and validity, item analysis, classical test theory (CTT), item response theory (IRT), and principles of test construction. This course aims to prepare students with fundamental knowledge and skills necessary to perform psychometric analyses, to interpret and evaluate measurement methodology and outcomes, and to apply appropriate psychometric strategies to address questions that arise in educational research and practice.
Assessment: 100% coursework.

Prerequisite: Previous enrolment in MEDD8815 Introduction to Statistical Methods

Assessment: 100% coursework.

MEDD8904 Introduction to Factor Analysis and Structural Equation Modeling (6 credits)

This course is designed to introduce the theory and practice of factor analysis (FA) and structural equation modeling (SEM). Technically, FA and SEM cover a family of multivariate statistical techniques to analyse structural and causal models with observed and latent variables. Methodologically, they offer a quantitative framework for empirical research from the exploratory to confirmatory ends. The course focuses on both theoretical knowledge to understand a variety of topics and practical skills that can be widely applied in social and behavioral sciences. General topics include the exploratory factor analysis, confirmatory factor analysis, path analysis, and general structural equation models. Many special topics and similar variants will be briefly introduced.

Prerequisite: Previous enrolment in MEDD8815 Introduction to Statistical Methods

Assessment: 100% coursework.

MEDD8906 Mindfulness and Mindful Leadership in Schools (6 credits)

This course introduces students to the key ideas, theories and recommended strategies surrounding mindfulness and mindful leadership. Children and youth around the globe have been besieged by disruptions that threaten not only their academic learning but also their mental, emotional and interpersonal well-being. In the midst of pressing and mounting challenges, how can schools ensure the total wellness of all learners? Beyond reactive, piecemeal, and short-term measures, schools need to enact a sustainable mindfulness curriculum that pays attention to wholeness in every student. At the systems level, school leaders should adopt a mindfulness-based management approach that caters to the holistic needs of the students, staff and other educational stakeholders. Through this course, students will acquire an appreciation of how mindfulness and mindful leadership can be promoted through the school mission, ethos, management system, community, curriculum, teaching, learning and assessment.

Assessment: 100% coursework.

MEDD8909 Use of Assessment for Learning to Develop Critical Thinking of Secondary Students (6 credits)

Though critical thinking is an important objective in education worldwide and a wide variety of learning and teaching approaches of developing critical thinking have been suggested in rich academic publications, learning designs and assessment tasks which effectively and systematically develop critical thinking are generally limited in secondary schools. By discussing various strategies of assessment for learning as well as reviewing the strengths and weaknesses of current research issues in the field of critical thinking, the course aims to develop an understanding in the principles and strategies to create learning design and assessment task for developing and assessing critical thinking of secondary students more effectively and systematically. The course will be suitable for secondary teachers or educators who have an interest to develop an understanding of creating and evaluating learning design for developing critical thinking for Grade 7-12 students. The related assessment literacy and practices are discussed in the course, especially those of assessment for learning.

Assessment: 100% coursework.

MEDD8913 Educational Leadership for Equity and Social Justice (6 credits)

The course examines theories and issues of educational leadership and explores ways in which school leaders can enhance educational equity and social justice. Participants are expected to demonstrate an

in-depth understanding of the concept of equity and leadership and how school leaders can effectively perform their roles in addressing distinct needs of diverse students. Educational leaders have the duty and responsibility to create school organisations that are culturally relevant and socially just to ensure their students' positive and equitable schooling experiences and learning. In addition to basic sociological concepts and theories of social and educational inequalities, students in this course will explore various normative challenges of leadership in the context of education and other areas of professional life. The course will emphasise the participants' ability be reflective about the implications of theory for the practice of leadership, including knowledge, behaviors, values, and skills needed to foster equity and social justice in schools.

Assessment: 100% coursework.

MEDD8914 Implementing STEM/STEAM-Rich Making: Opportunities and Challenges (6 credits)

This course aims to develop students' knowledge of constructionism and maker culture to enhance their understanding of the theory and practice behind STEM/STEAM-Rich Making. Students will explore different approaches (e.g. assembly form of making, tinkering) in practical STEM/STEAM-Rich Making through hands-on activities. This course also critically examines the opportunities and challenges for implementing STEM/STEAM-Rich Making through SWOT analysis and funding proposal writing, as well as develops students' leadership in promoting and implementing STEM/STEAM education. School visits will be arranged, if possible.

Assessment: 100% coursework.

MEDD8915 Integrating IB Philosophy into the Teaching of Mathematics (6 credits)

This course includes an in-depth exploration into how to integrate IB DP philosophy in curriculum design, teaching and learning, assessment and research. Students will be guided on designing and refining Mathematics curriculum that reflects the overall IB DP philosophy and learner profile and at the same time aligns with the Mathematics curriculum guides. Students will also be engaged in exploring various pedagogies and technological tools to integrate IB philosophy and learner profiles in Mathematics instruction. Students will explore TOK, CAS and Extended Essay in relation to Mathematics education. Furthermore, the course will also enhance students' understanding on how to reflect IB philosophy, cross-disciplinary application and learner profile in assessment design and how to design assessments that reflect IB subject matter specific assessment criteria. In this course, students also generate a series of research questions around the integration of IB philosophy in instruction.

Assessment: 100% coursework.

MEDD8916 Public Policy in Early Childhood and Primary Education (6 credits)

This course examines public policies in early childhood and primary education in the local and global context. Focusing on government policies aimed at children aged between birth and up until the start of secondary education, it uses a comparative perspective by examining and critically evaluating both early childhood policy and primary education policy in several different high-income countries or jurisdictions, including Hong Kong, and also considers the differing context and recent policy developments in low- and middle- income countries. The course considers the policy, curricula, and pedagogical challenges of transitioning from pre-primary to primary education. The course discusses different models of early childhood and primary service provision, trends and patterns in differences in

rates of service participation and enrolment globally, policies designed to ensure a high quality of service provision, and similarities and differences in child outcomes across the countries studied.

Assessment: 100% coursework.

MEDD8920 Classroom Research in General Studies and Liberal Education (6 credits)

This course provides a step-by-step approach on how to conduct empirical research in General Studies and Liberal Education. Students will learn from different academic publications (e.g. journal articles) on how to use qualitative, quantitative and mixed methods to do classroom research related to these two learning areas. The methods taught in the course include case studies, questionnaire-based surveys, interviews and action research, which are useful in evaluating the effectiveness of Liberal Education and General Studies in Hong Kong schools. By the end of the course, it is expected that students will understand how to design and conduct a small-scale research project to better understand the nature and/or evaluate their own teaching performance in the subjects.

Assessment: 100% coursework.

MEDD8921 Conducting Cross-Cultural Educational Research (6 credits)

This course is designed to introduce students to methods for engaging in research related to culture in education. It examines the nature and major historical and contemporary theories of culture, how educational research related to culture is conducted, and various kinds of studies of culture in educational research. There are several challenges involved with studying culture at the methodological level. This course will address some common issues including problems related to precision, representativeness, sampling and recruiting, research bias and reflexivity, and definitional problems. Culture is often studied in terms of representation in various kinds of text. The course will consider common methods for studying culture in curriculum, policy, popular culture, and mainstream media. How to manage one's assumptions and biases related to culture is also addressed in the course, as well as how to organise, argue, and write up a significant project that deals with questions of culture.

Assessment: 100% coursework.

MEDD8922 Philosophical and Ethical Issues in Educational Research (6 credits)

This course is designed to introduce students to methods for engaging in research in philosophy of education. A great deal of educational research aims to examine and illustrate what is happening in education by gathering and analysing data, without focusing on whether what is happening is good or bad. While all educational research should touch on "what should happen" in education, philosophy of education is best equipped to respond to this question through systematically using logic and reflection. This course enables students to engage in clear analytical thinking about educational research, examine the assumptions embedded in all educational research, and make normative arguments based on logic and reflection. Students interested in engaging in effective critiques of educational ideas and practices and aligning educational recommendations with ethical and moral values (such as equality, equity, justice, harmony, diversity, etc.) will particularly benefit from this course.

Assessment: 100% coursework.