REGULATIONS FOR THE DEGREE OF MASTER OF SCIENCE IN INFORMATION TECHNOLOGY IN EDUCATION (MSc[ITE])

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

Any publication based on work approved for a higher degree should contain a reference to the effect that the work was submitted to the University of Hong Kong for the award of the degree.

Ed216 Admission requirements

To be eligible for admission to the degree of Master of Science in Information Technology in 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).

Ed217 Qualifying examination

(a) A qualifying examination may be set to test the 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.

Ed218 Period of study

The curriculum shall normally extend over one academic year of full-time study, including a summer semester, or two consecutive academic years of part-time study. Candidates shall not be permitted to extend their studies beyond the maximum period of registration of two academic years of full-time study or four academic years of part-time study, unless otherwise permitted or required by the Board of the Faculty.

Ed219 Curriculum requirements

To complete the curriculum, candidates shall

(a) satisfy the requirements prescribed in TPG 6 of the Regulations for Taught Postgraduate Curricula;
(b) follow instruction in the syllabuses prescribed and complete all specified work as required; and
(c) satisfy the examiners in all assessment tasks as may be required.

Ed220 Advanced Standing and credit transfer

(a) Advanced Standing may be granted to candidates who have successfully completed one or more courses in the Postgraduate Certificate in Advanced Educational Studies curriculum of 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 specialist 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 Postgraduate Certificate in Advanced Educational Studies or another 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 on 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.

Ed221 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 exempted must replace the number of exempted credits with courses of the same credit value.

Ed222 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 or above 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.

Ed223 Re-assessment

Candidates are required to make up for failed courses in the following manner:

(a) undergoing re-assessment/ re-examination in the failed course to be held normally no later than the end of the following semester (not including the summer semester); or

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

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

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

Ed224 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; or

(b) exceeded the maximum period of registration specified in Regulation Ed218.

Ed225 Grading systems

Individual courses shall be graded according to one of the following grading systems as determined by the Board of Examiners:

(a) Letter grades, their standards and the grade points for assessment as follows:

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

or

(b) 'Pass' or 'Fail'.

Courses which are graded according to (b) above will not be included in the calculation of the GPA.

Ed226 Award of degree

(a) To be eligible for the award of the degree of Master of Science in Information Technology in 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 SCIENCE IN INFORMATION TECHNOLOGY IN EDUCATION
(MSc[ITE])

The degree of Master of Science in Information Technology in Education (MSc[ITE]) is a postgraduate degree awarded for the satisfactory completion of a prescribed programme in one of the following specialist strands:

1. E-leadership
2. E-learning
3. Learning technology design

Candidates are required to complete a total of 60 credits which comprise:

- 18 credits core courses (6 credits each)
- a 12-credit capstone course
- 18 credits from a specialist strand
- 12 credits elective courses

CORE COURSES

Candidates are required to complete 18 credits core courses.

MITE6023 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.
Assessment: 100% coursework.

MITE6024 Teaching and learning with information technology (6 credits)

This course provides a comprehensive introduction to the use of information technology for teaching and learning. Topics range from traditional applications e.g., computer-based tutorials to more contemporary applications such as the use of learning objects, cognitive tools and collaborative technologies. The course highlights theories of learning underpinning technology integration and the educational contexts within which these are intended to be used.
Assessment: 100% coursework.

MITE6025 Methods of research and enquiry (6 credits)

This course introduces students to research methods, emphasising critical appraisal and an understanding multiple approaches to conducting research. The course also examines the conceptualisation, planning and conduct of small-scale research in the integration of information technology in educational settings.
Assessment: 100% coursework.

SPECIALIST COURSES

Candidates are required to complete 18 credits from the list of specialist courses for their chosen specialist strand. Not all courses will necessarily be offered every year.

A. E-leadership

MITE6305 Digital culture and educational practice (6 credits)
MITE6310 Innovative practices in education through information technology adoption (6 credits)
MITE6328 Organisational learning (6 credits)
MITE6335 Technology in education in China within a global context (6 credits)
MITE7345 Engaging adult learners (6 credits)
MITE7347 Project management (6 credits)
MITE7351 Information system analysis and development (6 credits)
MITE7352 Information technology and intellectual property law in education (6 credits)

B. E-learning

MITE6311 E-learning strategies and management (6 credits)
MITE6330 Learning design and technology (6 credits)
MITE6338 New literacies and technology (6 credits)
MITE7341 Game-based learning environments (6 credits)
MITE7345 Engaging adult learners (6 credits)
MITE7349 Data science and learning analytics (6 credits)
MITE7351 Information system analysis and development (6 credits)
MITE7352 Information technology and intellectual property law in education (6 credits)
MITE7353 Artificial intelligence in education (6 credits)

C. Learning technology design

MITE6329 Multimedia in education (6 credits)
MITE6330 Learning design and technology (6 credits)
MITE6332 Digital resources for learning (6 credits)
MITE6333 Mobile and ubiquitous technology in education (6 credits)
MITE6334 Educational video & storytelling (6 credits)
MITE7349 Data science and learning analytics (6 credits)
MITE7351 Information system analysis and development (6 credits)
MITE7352 Information technology and intellectual property law in education (6 credits)
MITE7353 Artificial intelligence in education (6 credits)

CAPSTONE PROJECT AND RESEARCH (A capstone requirement)

Candidates are required to complete MITE7000. Capstone project and research (equivalent to 12 credits).

MITE7000 Capstone project and research (12 credits)

The capstone course provides students with an opportunity to apply and extend their knowledge and skills developed through the study, and demonstrate mastery of the programme level learning outcomes.

There will be two options available for students to choose:

- Capstone Project A – A research-based project with the final deliverable in a format of a research paper suitable for an academic pursuit, such as, for inclusion in academic conference proceedings, a book chapter or a journal paper. The total word length of written output for various assessment tasks is 8,000 words, including a research-based paper of 6,000 words and conference presentation of 2,000 words.

- Capstone Project B – A development and evaluation project reflecting authentic practices from an education-focused industry, such as, e-learning in higher education or a corporate environment, education publishing industry, or a client-focused content development venture. Deliverables for this option will include (a) a final, developed and evaluated product, and (b) a paper reporting experiences in the development. The paper shall be in a format suitable for an academic conference. The total word length of written output for various assessment tasks is 8,000 words, including a development and evaluation project of 4,000 words, a project site or product of 2,000 words and a conference presentation of 2,000 words.

There shall be an equivalent of 36 hours of scheduled sessions in this course for students to (a) meet, share experiences, clarify expectations, receive guidance from their facilitator(s) and Capstone Project coordinator as groups and in respect to different stages of their project, and (b) participate in a conference to be specially arranged for the purpose of students presenting posters of their ongoing projects. In addition, 6 hours of contact time will be available for students to undergo one-to-one meetings with their facilitator(s), either in person or online, and pursue consultations with other relevant stakeholders. In addition, an equivalent of 198 hours of independent work will be required for the completion. The total study load is 240 hours.

For research-based projects, the stages will include conceptualisation of project stage, methodological design, ethics application, revision of instruments, data analysis as well as preparing poster presentations, writing up project reports and other deliverables. For development and evaluation-based projects, the stages will include requirement analysis, design of prototype, ethics application, development and implementation of the product, evaluation of the product, poster presentation and report writing. The Capstone Project will provide an exceptional experience for students to engage in developing their projects, reflecting and mastering knowledge and skills over an extended period of time from December until July. Also, the experience will provide students with an opportunity to be a part of a learning community to collaboratively extend what they have learnt in the programme to both academic research and professional practices outside of the University.
Assessment: 100% coursework.

ELECTIVE COURSES

Candidates are required to complete 12 credits elective courses which have not yet been taken previously. Candidates may take relevant course(s) from other master degree curricula offered by the Faculty of Education under the advice and approval of the Programme Director. Not all elective courses will necessarily be offered every year.

MITE6305 Digital culture and educational practice (6 credits)

This course explores with a multidisciplinary perspective the impact of digital technologies on society and the individuals. It examines ways in which information technology has affected global and local communities and cultures, home, leisure, work and educational practices as well as our conception of identity. Issues related to the evolution and impact of cyber-communities on adolescents and traditional educational communities will also be examined.
Assessment: 100% coursework.

MITE6310 Innovative practices in education through information technology adoption (6 credits)

This course explores innovative practices in education through the integration of information technology. The course investigates in detail case studies collected from around the world to examine concepts and models of what constitutes innovative practice in a variety of educational settings. The course examines the proposition that technology can act as a lever for innovation and change in education.
Assessment: 100% coursework.

MITE6311 E-learning strategies and management (6 credits)

In recent years, we have witnessed an explosive growth in the use of e-learning. But how do we actually design e-learning courses that can engage learners? This course will explore important issues relevant to the design and management of e-learning in both school and organisational learning contexts. Participants will be introduced to six specific types of learning: (a) factual knowledge, (b) conceptual knowledge, (c) critical thinking ability, (d) problem solving, (e) procedural learning, and (f) attitude change. This course will investigate the various instructional strategies that can promote the mastery of each aforementioned six types of learning. Strategies to motivate students in e-learning contexts will also be discussed.
Assessment: 100% coursework.

MITE6328 Organisational learning (6 credits)

This course explores the concept and processes of organisational learning and the learning organisation. It examines the strategies and tools employed to create and manage a learning and innovative organisation. Topics include managing chaos and complexity; organisation culture and change, scenario planning, storytelling, professional development, training and learning (especially e-learning), performance and evaluation of learning, and others.
Assessment: 100% coursework.

MITE6329 Multimedia in education (6 credits)

This course examines methods for sourcing, selecting, using, adapting and evaluating educational multimedia. The course also explores processes and tools for designing and developing educational multimedia products.
Assessment: 100% coursework.

MITE6330 Learning design and technology (6 credits)

This course examines instructional design models and systematic approaches to design of learning environments and resources. The course introduces instructional design from a theoretical perspective as well as providing students with an opportunity to examine the stages of learning product development. 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.

MITE6332 Digital resources for learning (6 credits)

This course explores the design and development of learning objects (LO) to support teaching and learning. LOs are also examined as a strategy for effective management and delivery of institutional educational resources. The course explores different forms of LOs and examines processes of their design. Students will engage in practical activities, using software tools to develop LOs, and strategies for repurposing their use. The course addresses relevant theoretical issues including multimedia learning and cognitive processing of multimodal information.
Assessment: 100% coursework.

MITE6333 Mobile and ubiquitous technology in education (6 credits)

This course provides a hands-on oriented and in-depth exploration of smart-phone/mobile devices in general, together with essential concepts and the impact of ubiquitous technologies for education and training. The potential for this technology in the next-generation learning systems to impact socio-

technological and educational developments will be investigated through real-life examples. In addition to the theoretical and conceptual issues, students will develop practical knowledge in the design and development of simple educational applications for delivery via mobile technologies (e.g., iPhone, iPads and iPods). Particular attention will be given to object-oriented programming and integration with cloud computing.
Assessment: 100% coursework.

MITE6334 Educational video and storytelling (6 credits)

The most important component of any e-learning curriculum is content. The integration of digital video and storytelling in education, perhaps more than any other medium, has the power to engage, captivate and enlighten today's learners. This course aims not only to enable the development of media literacy and higher order thinking skills, but also to provide project-based learning experiences that have real world relevancy for contemporary educators. In this course, using the process Visualise – Analyse – Communicate – Apply, participants will explore the principles and application of effective digital video and storytelling in various pedagogical environments and identify and critically evaluate the pedagogical assumptions underlying various multimedia applications. Through the expression of creativity and multiple ways of thinking, participants in this course will engage and interact to develop the necessary skills and confidence to storyboard, plan, coordinate and produce digital video for education, as well as develop the technical capability to author original storytelling content using sound, graphics and video that will have significant implications for the learning experience of today's multimedia-savvy students.
Assessment: 100% coursework.

MITE6335 Technology in education in China within a global context (6 credits)

Rapid developments in the field of Information Technologies (IT) pose significant challenges to contemporary education systems. Many countries are engaged in developing education policies and pedagogical practices to transform these developments into tangible benefits. The role of IT in China's educational system has been increasing over the last two decades. Policies leveraging these developments have been implemented at both national and provincial levels. However, role of IT in Chinese educational contexts may differ from that in the educational contexts of other countries. In embracing educational opportunities provided by IT China also faces unique and significant challenges. Case-based and project-based approach will be adopted in this course.
Assessment: 100% coursework.

MITE6338 New literacies and technology (6 credits)

Digital Literacies comprise of information literacy, ICT literacy and media literacy. They are some of the core 21st century workplace skills. Students as well as knowledge workers need to equip with such skills so that they will be able to define and solve a problem or challenge at hand, and analyze suitable electronic and print information resources, manage resources efficiently and use the sources ethically. The course will also introduce the effective applications of social media for enhancing communication among different groups of an organisation.
Assessment: 100% coursework.

MITE7341 Game-based learning environments (6 credits)

This course aims to introduce the main idea behind Digital Game-Based Learning (DGBL). It will investigate the pedagogical aspects of using games for learning, including commercial games in education settings and games that are created specifically for educational purpose. This course will review current techniques and trends in educational games. Issues related to design, enhancement implementation and evaluation of DGBL will also be examined.
Assessment: 100% coursework.

MITE7345 Engaging adult learners (6 credits)

Adult learning takes place in a wide variety of settings and contexts, such as higher education, adult literacy, continuing professional training (CPT), or workplace education. This course explores issues related to the process of engaging an adult learner. This course will examine the perspectives, as well as the different theories which describe adult learning. This course is ideal for students who are currently or planning to work in an adult training capacity in an organisation or educational institution, and would be responsible for designing, developing, or implementing training/educational-related programmes
Assessment: 100% coursework.

MITE7347 Project management (6 credits)

This course explores the project life cycle and Project Management (PM) techniques for managing and planning successful projects in organisations. Conceptual foundations from the PMBOK and their application are stressed, and applied using PM software. This course will run in project based, experiential learning mode (PBL) with participants completing a project ideally for an external client.
Assessment: 100% coursework.

MITE7349 Data science and learning analytics (6 credits)

This course provides a broad overview of the key concepts, skills, technologies and applications in data science, with an emphasis on learning analytics and educational data mining. Learners will explore principles, methods and application cases in data pre-processing and storage, inferential and predictive analytics, supervised and unsupervised machine learning, association rule mining, text analytics, network analysis, data visualisation, as well as data ethics and privacy. Example cases will be discussed to illustrate how learning analytics needs to be connected to the targeted learning outcomes and pedagogical design considerations. Students will conduct labs, tutorials and group project to gain hands-on experience on using industry-standard data mining and/or learning analytics packages to solve practical data-driven problems. It is strongly recommended that students have basic knowledge of statistics (equivalent to undergraduate level of introductory course on statistics) and are comfortable of using new IT tools.
Assessment: 100% coursework.

MITE7351 Information system analysis and development (6 credits)

The student should after the course have a basic knowledge of models, methods and tools to be able to independently apply the principles for selection and evaluation of systems development methods.
Assessment: 100% coursework.

MITE7352 Information technology and intellectual property law in education (6 credits)

This course explores the legal issues and ethical challenges related to information technology (IT) and intellectual property (IP) law which is often involved in education. It investigates the introductory legal and ethical knowledge in relation to the design and implementation of educational technology and digital learning environment in both schools and organisational learning contexts. This course offers opportunities to students with non-legal background to consider IT policies and strategies from legal perspectives, and equips them with a sound understanding of legal principles in using IT to support the innovation in IP through leadership roles at institutional level. Legal and ethical issues in IT and IP such as digital ownership, cyber-speech, cyberbullying in social networks, cybercrimes, copyright infringement and software, copyright in the digital environment, fair use of copyrighted work, the database right, privacy and data protection, and law enforcement in the information society as well as other emerging issues will be examined.
Assessment: 100% coursework.

MITE7353 Artificial intelligence in education (6 credits)

This course aims to equip students with the fundamental knowledge of artificial intelligence (AI) and its incorporation/implementation practices in the educational setting. It provides opportunities for students to analyse the impacts, opportunities and challenges of AI in education (AIED), and to examine its ethical and social issues. Emerging applications of AIED will be introduced. Students are provided with opportunities to design AI programmes for education purposes and evaluate innovative learning environments leveraged by AI.
Assessment: 100% coursework.