

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

(See also General Regulations)

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 courses leading to the degree of Master of Science in Information Technology in Education, candidates shall

- (a) comply with the General Regulations;
 - (b) hold *either* a Bachelor's degree of this University or of another University or comparable institution accepted for this purpose; *or* another qualification of equivalent standard accepted for this purpose; and
 - (c) satisfy the examiners in a qualifying examination, if required.
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Ed217 Qualifying examination

- (a) A qualifying examination may be set to test the candidates' formal academic ability or their ability to follow the courses of study 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.
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Ed218 Award of degree

To be eligible for the award of the degree of Master of Science in Information Technology in Education, candidates shall

- (a) comply with the General Regulations; and
 - (b) complete the curriculum and satisfy the examiners in accordance with the regulations set out below.
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Ed219 Length of curriculum

The curriculum shall normally extend over one academic year of full-time study or two, but no more than four consecutive academic years of part-time study, with a minimum of 300 hours of prescribed work.

Ed220 Completion of curriculum

To complete the curriculum, candidates shall

- (a) follow instructions on the syllabuses prescribed and complete all specified work as required;
- (b) satisfy the examiners in all forms of assessment as may be required;
- (c) complete and present a satisfactory dissertation if required on an approved subject; and
- (d) satisfy the examiners in an oral examination if required.

* Subject to University's approval.

Candidates who have failed to complete the curriculum and satisfy the examiners in accordance with this set of regulations within the prescribed length of study may be recommended for discontinuation of studies under the provisions of General Regulation G12.

Ed221 Dissertation

- (a) Candidates who select the dissertation option must submit the title of their dissertation for approval not later than six months before the formal submission of the dissertation.
 - (b) Part-time candidates who have satisfied the examiners in at least four taught modules are eligible to register for the dissertation modules.
 - (c) Candidates enrolled for the dissertation shall submit a statement that the dissertation represents their own work undertaken after registration as a candidate for the degree.
 - (d) The examiners may also prescribe an oral examination for candidates enrolled for the dissertation on the subject of the dissertation.
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Ed222 Examinations

- (a) An assessment of the candidates' performance during the years of study may include written assignments, tests, laboratory and practical work as prescribed by the course;
 - (b) Candidates who have failed to satisfy the examiners in any part of the examinations at the first attempt may be permitted to present themselves again for examination as determined by the Board of Examiners;
 - (c) Candidates who have presented a dissertation which has failed to satisfy the examiners at the first attempt may be permitted to re-present the dissertation within a period of not more than 12 months after it is deemed unsatisfactory.
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Ed223 Examination results

Results will be published at the conclusion of the examinations. Candidates who have shown exceptional merit may be awarded a mark of distinction, and this mark shall be recorded in the candidates' degree certificate.

Ed224 Discontinuation

Candidates who have failed to satisfy the examiners upon the re-examination of a module or re-presentation of a dissertation may be recommended for discontinuation of studies under the provisions of General Regulation G12.

Ed225 Advanced standing

- (a) Advanced standing shall normally be granted to candidates who have successfully completed one or more modules in the Postgraduate Certificate in Advanced Educational Studies (PCAdvEdStud) programme of this University **or** another qualification of equivalent standard accepted for this purpose.
- (b) Credit of up to the equivalent of three modules may be granted by the Board of the Faculty of Education subject to the following conditions:
 - (i) the modules are appropriate and cover similar content to modules offered in the MSc(ITE); and

- (ii) the application for credit is received within five years of successful completion of the relevant modules or graduation from the Postgraduate Certificate in Advanced Educational Studies or another qualification of equivalent standard accepted for this purpose, whichever is later.
 - (c) Application for advanced standing shall normally be made at the same time of application for admissions to the MSc(ITE) programme, and should be accompanied by copies of academic transcripts to support the application.
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SYLLABUSES FOR THE DEGREE OF MASTER OF SCIENCE IN INFORMATION TECHNOLOGY IN EDUCATION

The programme will take the form of modules. Candidates are required to complete a total of 8 modules. The programme consists of core modules, elective modules and a dissertation option. For students who opt to undertake a dissertation, the breakdown of the 8 modules will be: 3 core modules; 2 elective modules; and 3 dissertation modules. For students who opt to undertake coursework only, the breakdown will be: 3 core modules, 5 elective modules. The programme offers 4 optional specialist strands, namely: e-leadership and educational change; e-learning; learning technology design; and library and information studies. Students wishing to take a specialist strand need to complete relevant elective modules.

MITE6000. CORE MODULES

Candidates are required to complete 3 core modules:

MITE6023. Information technology and educational leadership (1 module)

The aim of this module is to provide students with the necessary knowledge and working methods to be able to implement local ICT policies and strategies at the institutional level. The module provides a comparative perspective for benchmarking Hong Kong practices with examples of good working practice both locally and internationally. It also discusses contemporary leadership issues in the implementation of ICT in education at different levels.

MITE6024. Teaching and learning with information technology (1 module)

This module aims to provide a comprehensive introduction to the various uses of computer supported environments (CSE) for teaching and learning, including traditional CAL applications, cognitive tools as well as collaborative tools involving the use of various modes of computer mediated communications. This module highlights the theories of learning that underpins the design of different CSE and the social and educational contexts within which these are intended to be used. Issues related to implementation and evaluation of CSE will also be examined.

MITE6025. Methods of research and enquiry (1 module)

This module introduces educational research methods with particular emphasis on critical reading and understanding of a variety of approaches to research in education.

MITE6200. ELECTIVE MODULES

Candidates are required to complete 2 or 5 elective modules from a list to be determined yearly. The list may contain relevant modules offered by other master programmes within the University. The list of elective modules offered by the programme includes:

MITE6301. Curriculum reform and information technology (1 module)

This module examines the issues of curriculum reform through information technology integration. In many professions workers are dealing with information, need to learn 'just in time', and are using computers and the Internet intensively. The 'information society' calls for new knowledge and new skills, such as lifelong learning skills and information handling skills. In many countries the use of ICT, and certainly the integration of ICT in teaching-learning processes has been limited. This module aims to deal with this theme by studying and discussing amongst others topics such as: desirability and necessity of reform of school curricula; possible characteristics of such reform; relationship between 'old' and 'new' components of curricula; role and possibilities of ICT to realise such reforms; integration and/or use of World Wide Web (WWW) curriculum materials; judging the quality of WWW materials and e-learning.

MITE6302. Hypermedia and multimedia in education (1 module)

The aim of this module is to provide students with the necessary knowledge and working methods to be able to source, select, use, adapt and evaluate the use of selected hypermedia and multimedia in education.

MITE6303. Multimedia case studies (1 module)

This is a more specialized research methods module where the focus is on the use of multimedia to extend the usefulness, the immediacy and the power of case studies. The module will explore how multimedia methods can break the grip of printed text in the presentation of research as well as shift the relationship between author and reader, due to their capacity for high speed searching of databases and their potential for interactivity.

MITE6304. Designing shared virtual environments for learning (1 module)

This module provides an introduction to current leading-edge work on shared virtual environments for learning (SVEL) through a variety of reflective experiences in such environments. The module will delineate and interrelate various theories underlying the pedagogy and content of SVEL, discuss and utilize exemplary instructional design strategies for their development, describe and illustrate appropriate strategies for their evaluation.

MITE6305. Digital culture and educational practice (1 module)

This module explores the impact of the digital technologies on society, the community and the individual. It examines ways ICT have affected global and local communities and cultures, home, leisure, work and information and educational practices as well as our understandings of ourselves. Issues related to the evolution and impact of cyber-communities on adolescents and traditional educational communities will also be examined.

MITE6306. Modeling and simulations in education (1 module)

This module introduces the use of modeling and simulations for teaching and learning. In addition to exploring different types of simulation and modeling tools, the module will examine different pedagogical strategies in using them.

MITE6307. Managing information technology in schools (1 module)

This module is designed for practitioners who take part in coordinating and managing information technology in schools. The module will discuss technical as well as organizational and security issues of information technology management in schools. Topics include planning, organizing, leading and controlling the integration of information technology into school practices.

MITE6308. Research in action in the workplace (1 module)

This module provides students with an opportunity to conduct collaborative research in their own workplace. This module examines issues in relation to information technology adoption in education and explores concerns related to ethics and conducting research in education. It builds on the research methods module, introduces concepts of action research and provides students with a small-scale project-oriented opportunity to conduct research in ICT use in their work environments. Students in groups will be required to formulate research questions, develop a research design, collect and analyze data and write up their findings in the form of a collaborative research report.

MITE6309. Staff development and school change in the information age (1 module)

This module introduces the skills and strategies in promoting an ICT culture at school, the implementation of a staff development plan and the provision of internal and external ICT support in the school context. The module explores theoretical and practical issues in teacher professional development and school development for technology integration. Topics include the concept of staff development, models of teacher professional development in information technology, changing staff culture and school development planning. This module will also explore theoretical and practical issues in managing change and school development for technology integration.

MITE6310. Innovative practices in education through information technology adoption (1 module)

This module examines innovative practices in education through the integration of information technology. The module 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 module explores the proposition that technology can act as a lever for innovation and change in education.

MITE6311. e-Learning strategies and management (1 module)

This module investigates the expansion and applications of e-learning through Computer Mediated Communications (CMC). The module will develop knowledge and skills in producing virtual learning

environments for schools and organizations. Dimensions of e-learning will be explored from K-adult, distance learning, web-based training, constructivist and flexible approaches to learning at educational institutions, at home and in the workplace. Topics will include a focus on delivery systems, content management, standards, assessment and evaluation of e-learning, for example, the shareable content object reference model (SCORM), the learning management system (LMS), the learning content management system (LCMS), and reusable learning objects.

MITE6312. Computer programming for problem-based learning (1 module)

This module investigates models for teaching and learning that focus on problem based learning (PBL) in relation to various issues of programming systems. Programming applications such as simulation, robotics, data-logging and e-laboratories, that engage learners with authentic real-world projects and real-life connections between the learners and the world they live in will be explored.

MITE6313. Educational web-publishing (1 module)

This module introduces the theoretical and technical knowledge in the production of web-based educational material. Special attention will be given to the development of educational web-based applications that interface with databases. Educational web development issues such as educational web design and creation, web security and accessibility, user interface design, data modeling, database design and management, data definition and manipulation language, and connection databases to we-based applications will be addressed.

MITE6314. Library and information science foundation (1 module)

This module introduces the history, the complex development and the potential of information sciences (libraries, museums, archives and related disciplines). The applications for information and the role of library and information professionals are explored with an emphasis on the information professional as an educator.

MITE6315. Collection management (1 module)

This module examines the methods used to build library collections in a variety of media in all types of libraries with an emphasis on the selection process and the relationship to stakeholders' information needs. Relationships between libraries and the publishing industry are discussed. Policy development is explored, linking collection policies to broader information policy issues such as designing digital and virtual libraries, building collaborative teaching resource databases of learning objects, and records management in electronic information environments.

MITE6316. Organising information (1 module)

This module introduces the theory and applications of information organization. Approaches to describing and representing information in a variety of formats are covered as well as the evolution of standards to include electronic formats and Internet resources. The module explores learning objects, their description and issues of access in educational institutions. The principle of access to information is discussed in the relationship between information organization and retrieval.

MITE6317. Information retrieval theory and practice (1 module)

This module examines the information retrieval process from a theoretical and practical framework focusing on conceptual issues. The effective provision of access to information will be covered in the context of database structure and interface design, language issues, database selection, evaluation of search results, search strategies, information seeking behaviour and needs. Strategic searching, competitive intelligence and selected online systems are also explored.

MITE6318. Metadata and networked information resources (1 module)

This module introduces approaches to digital information environments and distributed information discovery. The need for standards in description, such as the Dublin Core Metadata Initiative (DCMI), the representation of data as well as the tools for text encoding are discussed in the context of hypermedia architectures, search engines and the Web. The application of metadata to learning objects is also explored. Readings and lab activities will be used to analyze and evaluate metadata schemes and theoretical issues.

MITE6319. Information behaviour (1 module)

This module examines the theory associated with information-seeking behaviour. The information seeking process is analysed and models explored that attempt to explain information behaviour. The concept of information literacy will be examined and analysed with particular attention to cognitive and affective issues.

MITE6320. Information policy (1 module)

This module examines the economic, political, ethical and technological issues concerning information policy in the education and library and information science contexts. It includes coverage of intellectual property rights and copyright, freedom of and access to information. Attention will be paid to the policy development process.

MITE6321. Knowledge management fundamentals (1 module)

This module will explore the phenomenon of the knowledge management (KM) movement. Emphasis will be given to the human side of KM. The module also provides an overview of techniques and tools for building a knowledge sharing culture in organizations and schools. Recent trends in the technology applied to managing knowledge (storage, access, distribution and sharing) are explored in, for example, groupware and intranet environments.

MITE6322. Independent project (1 module)

The independent project consists of a self-directed project in education, information or technology studies on a topic which builds on prior studies in the field.

MITE6323. Interactive representations of information and knowledge (1 module)

This module explores the design and development of interactive representations of information and knowledge. New technologies empower designers to package large quantities of information into

interactive information objects. Knowledge can be examined and packaged into interactive conceptual models. Information objects and conceptual models can be utilized for communication and for learning. Students will engage in designing and authoring interactive representations of information and knowledge.

MITE6324. Knowledge building to support curriculum and assessment innovation (1 module)

This module introduces the theory of learning underpinning the concept of knowledge building, the role and functional design of technology to support knowledge building, how a knowledge building approach can be incorporated into the school curriculum to support the development of lifelong learning capabilities of learners. Issues related to the design of learning activities, facilitation and assessment will be addressed.

MITE6325. Literature for young people in a digital age (1 module)

This module provides an overview of the history of children's literature with a discussion of major authors and contributors and an emphasis on contemporary literature for children and young adults. The impact of new technologies on the publication and use of children's fiction and non-fiction is discussed. Interactive multimedia, online reading and digital libraries for children are evaluated.

MITE6326. Digital libraries: principles and applications (1 module)

This module discusses the history and evolution of digital library collections and services. Research and development issues in digital libraries will be a focus for discussion. Access strategies and interfaces; metadata and interoperability; economic and social policies and management and evaluation are explored.

MITE6810. DISSERTATION (3 modules)

The dissertation modules consist of a dissertation on an approved topic from a field of study, and participation in a series of dissertation seminars. Candidates who opt to take the dissertation option are required to present their work at a dissertation seminar.

The dissertation is an approved independent research/development project carried out under the supervision of one or more staff members. While the dissertation is not necessarily a piece of original research, in all cases it should include an empirical element. The dissertation should provide a thorough and critical analysis of the topic undertaken by the student. Each candidate shall submit the title of the dissertation and present the completed dissertation by dates specified by the Board of Examiners.