REGULATIONS FOR THE DEGREE OF
MASTER OF SCIENCE IN INTEGRATED PROJECT DELIVERY
MSc(IPD)

These regulations and syllabuses apply to students admitted in the 2016-17 academic year and thereafter.

(See also General Regulations and the 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.

Admission requirements

IPD1

To be eligible for admission to the curriculum leading to the Master of Science in Integrated Project Delivery, candidates
   (a)   shall comply with the General Regulations and the Regulations for Taught Postgraduate Curricula;
   (b)   shall hold a Bachelor's degree with Honours in a relevant field of this University or from a comparable institution accepted for this purpose;
   (c)   shall produce proof of relevant work experience (normally a minimum of two years of post-degree practical experience in design, procurement, construction, policy-making or management of buildings, projects or urban districts, or an approved related field), including a *curriculum vitae*, at least one letter of reference from a relevant employer, and any other supplementary document as determined by the Programme Director;
   (d)   shall be fluent in both spoken and written English; and
   (e)   shall satisfy the examiners in a qualifying examination if required.

Qualifying examination

IPD2

   (a)   A qualifying examination may be set to test candidates' formal academic ability or their ability to follow the course of study prescribed. Such an examination shall consist of one or more written papers or their equivalent and may include a project report.
   (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.

Advanced Standing

IPD3

Candidates may be given advanced standing for up to 2 courses or 12 credits on the ground that equivalent courses or subjects have been passed at another university or comparable institution accepted by the faculty for this purpose, provided that no candidates shall be eligible for the award of the degree set out in these regulations without having completed at least 60 credits in this curriculum.

Award of degree

IPD4

To be eligible for the award of the Master of Science in Integrated Project Delivery, candidates

   (a)   shall comply with the General Regulations and the Regulations for Taught Postgraduate Curricula; and
   (b)   shall complete the curriculum and satisfy the examiners in accordance with the regulations set out below.

Period of study

IPD5

   The curriculum shall normally extend over two academic years of part-time study. Candidates shall not be permitted to extend their studies beyond the maximum period of registration of three academic years, unless otherwise permitted or required by the Board of the Faculty.

Completion of the curriculum

IPD6

To complete the curriculum, candidates
   (a)   shall satisfy the requirements prescribed in TPG 6 of the Regulations for Taught Postgraduate Curricula;
   (b)   shall follow course of instruction and complete satisfactorily all prescribed written work and practical work where appropriate;
   (c)   shall satisfy the examiners in all prescribed courses in any prescribed form of assessment; and
   (d)   shall satisfy the examiners in attendance at workshops and other learning activities in the manner specified in these regulations and syllabuses in 72 credits of prescribed courses.

Capstone project

IPD7

Candidates are to complete a Capstone experience that covers the whole of the curriculum and allows candidates to show that they have achieved all of the learning objectives.

Grading systems

IPD8

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

and

(b) "Distinction", "Pass" or "Fail".

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

Assessment

IPD9

(a) Candidates shall be recommended for discontinuation of studies under the provisions of General Regulation G12 if they have:
(i) failed to satisfy the examiners in three courses or more in any semester; or
(ii) failed to satisfy the examiners of any one course at the third attempt; or
(iii) failed to complete the curriculum by the end of the maximum period of registration; or
(iv) exceeded the maximum period of registration specified in the regulations of the curriculum.

(b) Candidates who have failed to satisfy the examiners in fewer than three courses in any semester must repeat the prescribed course(s).

Assessment results

IPD10

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 INTEGRATED PROJECT DELIVERY
MSc(IPD)

Candidates entering the Master of Science in Integrated Project Delivery curriculum are required to complete 72 credits of core courses.

CORE COURSES

Mode of Assessment

All courses will be assessed by examination and/or continuous coursework assessment, unless otherwise specified. Assessment methods and criteria will be specified for each course in the course description and be approved by the course director in consultation with teachers delivering the course.

RECO7601   Innovation and processes (6 credits)

This course covers innovation management and the concepts of business process engineering and reengineering. It introduces the principles of business models, business processes analysis and design, workflow management, techniques and supporting tools, innovation and innovation management, technology management and product development, Building Information Modelling. Case studies of innovations and the innovation process are explored and the impact of these on business models and business processes is explored.

Assessment: 60% coursework and 40% examination

RECO7602   Procurement in integrated project delivery (6 credits)

This course examines the strategic and emergent issues in construction procurement: a definition of procurement systems; organising the project procurement process; organisational design; organisational learning as a vehicle for improved building procurement; culture; conventionally orientated to developmentally orientated procurement systems; Early contractor involvement (ECI); Integrated project delivery (IPD); virtual design and construction (VDC); use of information and gaming technologies and procurement process implications; applying multiple project procurement methods to a portfolio of projects; multiple performance criteria for evaluating construction contractors; applying relational contracting in the supply chain; selection criteria; the impact of culture on project performance.

Assessment: 65% coursework and 35% examination

RECO7603   Management theory and collaborative project management (6 credits)

This course examines fundamental knowledge in management theory and its application in construction procurement: the project organisation, management theory and schools of thought, the project life cycle, organisation structure, team roles, change management, theory of planned behaviour, technology acceptance model, and case studies of projects.

Assessment: 50% coursework and 50% examination

RECO7604   Project Execution Planning (6 credits)

This course overviews the process of developing project specific BIM Execution Plans to support interdisciplinary information sharing and integrated design. The subjects include overview of BIM uses to support project objectives, development of process models to plan model development and handoffs, documenting and measuring modelling competencies, planning the needed IT infrastructure for project needs.

Assessment: 50% coursework, 25% Case Study Presentation and 25% examination

RECO7605   Information Management (6 credits)

This course focuses on the tasks associated with model management. Students will learn methods and techniques for aggregating and interrogating models, and assuring quality across the project lifecycle.

Assessment: 100% coursework

RECO7606   Information Technology and Change in Design and Construction (6 credits)

The course will provide an understanding of a range of approaches to implementation of IT in design, construction and operational contexts. The course will include an overview of current and new technologies that are impacting design, production and operation processes. It will demonstrate both the organisational and the technological issues confronting firms involved in the construction value chain. The aim is to understand technology and information management, from the early design stage to the operational facilities management stage; and to develop ways to approach, implement and manage new technologies and information systems. The adoption of IT brings with it particular organisational issues in relation to culture, user acceptance and security. The course will incorporate case studies involving analysing current organisational practices, processes and technology and the development of implementation strategies and long term management approaches.

Assessment: 100% coursework

RECO7607   Understanding Industry Practice (6 credits)

This introductory course of Project 1 is designed to prepare the student for Project 2, Future Industry Directions, and must be completed satisfactorily before enrolment in that course. The course will explain and explore effective approaches to literature review and the case study methodology. Students are required to submit a developed case study on an approved current issue in practice, including a full literature and industry review of the topic and an analysis of the issue in a particular industry context.

Assessment: 100% coursework

RECO7608   Future Industry Directions (6 credits)

This follow on from the introductory course, Understanding Industry Practice, is designed enable the student to examine the specific emergent issue identified in the prior course and to conduct case study research in company with a view to presenting a case for change, review or further research within company. The project can take the form of action research, secondment to another company or department or in-house workshops and seminars. The outcome of the research will be a report that presents a range of plans and options to resolve the issue identified in the first case study.

Assessment: 100% coursework

RECO7609   Technologies and Innovation (6 credits)

This course is designed to explain, explore and discuss the concepts and principles involved in contemporary technologies as they might promote innovation within the built environment. Through hands on modification of a leading computer game engine students will develop an appreciation of the repurposing of real time interactive virtual environments for applications beyond entertainment. By engaging in a significant project the students will be able to identify issues which might impact on the technologies application and through quantitative and qualitative methods evaluate its potential for promoting innovation.

Assessment: 100% coursework

RECO7610   Virtual Facilities Management (6 credits)

The construction of a facility generally costs less than 20% of the lifetime costs of running the facility. This course explores the impact of IPD, BIM and VDC on FM processes and business economics by reference to visualisations, virtual models and simulations. The importance and impact of Big Data on the management of facilities will be reviewed. Options and installation of state-of-the-art services for communication, power and data transmission technology, virtual office/workplace, data centers, advanced monitoring and automation for CAFM and BMS will be examined.

Assessment: 50% coursework and 50% examination

RECO7611   Innovation and Procurement: Gaming and VDC (6 credits)

Students will be introduced to start of the art serious gaming technology in use at the Safety Training Centre of a major local contractor. They will be invited to appraise and assess the effectiveness of the gaming technology in improving safety awareness then challenged to assess how else such technologies might be used in VDC. Students will then design and produce their own game focussing on an area that they have identified as having potential to benefit the industry by moving to delivery in a gaming environment.

Assessment: 100% coursework

RECO7612   CAPSTONE: Understanding Integrated Project Delivery (6 credits)

This Capstone allows students to experience working in an IPD team by way of a real life case study. The case is provided and moderated by local professionals based upon their own experiences. Students form teams and play the various roles determined in the project case study. Participants get the chance to employ the principles and practices that have been taught throughout the programme. Outcomes are exhibited in terms of relational behaviour, project execution planning, appropriate technology adoption, stakeholder engagement and other performance indicators presented during the programme.

Assessment: 100% coursework