# REGULATIONS FOR THE DEGREE OF MASTER OF SCIENCE IN CONSTRUCTION PROJECT MANAGEMENT (MSc[ConstProjectMan])

These regulations apply to candidates admitted in the 2017-18 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**

#### MCPM1

To be eligible for admission to the curriculum for the degree of Master of Science in Construction Project Management, candidates

- (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) 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); and
- (d) shall satisfy the examiners in a qualifying examination if required.

# Qualifying examination

#### MCPM2

- (a) A qualifying examination may be set to test candidates' formal academic abilities or their abilities to follow the courses 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.

#### **Requirements for graduation**

#### MCPM3

To be eligible for the award of the degree of Master of Science in Construction Project Management, candidates

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

#### Period of study

#### MCPM4

The curriculum shall normally extend over one academic year of full-time study or two 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 three academic years for part-time study, unless otherwise permitted or required by the Board of the Faculty.

# Completion of the curriculum

#### MCPM5

- (a) To complete the curriculum candidates
  - (i) shall satisfy the requirements prescribed in TPG 6 of the Regulations for Taught Postgraduate Curricula;
  - (ii) shall follow course of instruction and complete satisfactorily all prescribed written work and practical work where appropriate;
  - (iii) shall satisfy the examiners in all prescribed courses in any prescribed form of assessment; and
  - (iv) shall satisfy the examiners in the manner specified in these regulations and syllabuses in completing 72 credits including prescribed courses and elective courses.
- (b) The examiners may at their discretion prescribe an oral examination in any course or on the dissertation.
- (c) Selection of courses shall be subject to the approval of the Taught Postgraduate Committee.

#### Dissertation

#### MCPM6

(a) The title of the dissertation shall be submitted for approval not later than one month before the start of the final academic semester of the curriculum for full time candidates or four months before the start of the final academic semester of the curriculum for part-time candidates, and the dissertation shall be presented not later than twelve months after the start of the final academic semester of the curriculum. The candidate shall submit a statement that the dissertation represents his/her own work undertaken after registration as a candidate for the degree.

#### **Grading systems**

#### MCPM7

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
В		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

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

#### MCPM8

- (a) Candidates who have failed to satisfy the examiners in fewer than three courses, not including the dissertation, in any semester may be permitted to make up for the failed course(s) in the following manner as determined by the Board of Examiners:
  - (i) repeating the failed course by undergoing instruction and satisfying the assessments; or
  - (ii) for elective courses, taking another course in lieu and satisfying the assessment requirements; or
  - (iii) presenting themselves for re-assessment in the failed course.
- (b) Candidates who have failed to present a satisfactory dissertation at the first attempt may be permitted to revise the dissertation and to re-present it within a specified period determined by the Board of Examiners.
- (c) 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 satisfy the examiners upon re-assessment of the dissertation; or
  - (iv) exceeded the maximum period of registration.

#### Assessment result

# MCPM9

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.

# **Advanced Standing**

# MCPM10

Candidate 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 candidate shall be eligible for the award of the degree set out in these regulations without having completed at least 60 credits in this curriculum.

# SYLLABUSES FOR THE DEGREE OF MASTER OF SCIENCE IN CONSTRUCTION PROJECT MANAGEMENT (MSc[ConstProjectMan])

These syllabuses apply to candidates admitted in the 2018-19 academic year and take effect from the 2020-21 academic year.

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

#### **Curriculum Structure**

The aim of the curriculum design, on a faculty-wide basis, is to provide advanced tuition in all aspects of the project and land development processes, allowing candidates maximum flexibility in course selection within their chosen disciplines. Where appropriate the curriculums will be related to developments not only in Hong Kong but also in the People's Republic of China and the Southeast Asian region. Some of the courses listed below may not be offered every year.

To receive the award of Master of Science in Construction Project Management, a candidate must complete at least 72 credits including 36 credits of prescribed courses.

The prescribed 6-credit courses for Master of Science in Construction Project Management are:

RECO6028 Procurement systems;

RECO6042 Law for the real estate and construction industry;

RECO6058 Project workshop (CPM)\*;

RECO7074 Management theory and projects; and

RECO7079 Occupational health, safety and well-being in construction

RECO7094 Construction management practice

Selection of elective courses from the syllabus shall be subject to the approval of the Taught Postgraduate Committee. Not all courses from the syllabus will be offered every year. Candidates are required to take elective courses from a pool of designated electives to be announced by the Programme Director at the beginning of the year.

\* Candidates may take Dissertation (RECO6020) in lieu of Project workshop (CPM) (RECO6058) in order to meet the requirements of the prescribed courses of the MSc (CPM) degree. Both are capstone courses, which focus on the integration and application of knowledge and skills that candidates have acquired throughout their studies. Candidates who take Dissertation (RECO6020) as a capstone course may have to complete the curriculum with more than 72 credits.

# **RECO6001** Urban planning: theory and practice (6 credits)

This course examines the evolution of Urban Planning and Urban Planning Theory both in developed regions including Hong Kong and in developing parts of the world. It looks at contemporary planning issues and the challenges faced at the local as well as the strategic planning levels.

Assessment: 85% coursework and 15% examination

#### **RECO6003** Economics for professionals (6 credits)

This course offers an overview of modern economic analysis. It begins with the Demand and Supply Analysis, introducing key economic concepts, including elasticity, consumer and producer surplus, deadweight loss. Then it examines the consumer theory in the framework of Indifference curve analysis, and then study firms' behaviour in a perfectly competitive market as well as monopoly behaviour and

its pricing strategies. An oligopoly market competition is introduced. Market Failures including externalities and public goods as well as its critiques are briefly discussed. Elements of Macroeconomics will be covered, including trade balance, interest rate, exchange rate.

Assessment: 40% coursework and 60% examination

#### **RECO6004** Construction economics (6 credits)

This course examines construction economics, in particular building economics, from both a macro and micro perspective. In so doing, it focuses on issues pertinent to construction firms and construction projects. This includes global construction cost drivers, managing cash flow, management of risks, life cycle costing, cost estimation, and cost control.

Assessment: 70% coursework and 30% examination

# **RECO6005** Contract strategies and project management techniques (6 credits)

This course examines risk management, contract strategies, organization form, relational contracting, planning techniques, value management, quality management, operations research, sustainable construction.

Assessment: 50% coursework and 50% examination

# **RECO6017** Project finance (6 credits)

This course deals with project finance from an international financial markets perspective, and includes real estate project financing. It covers international project finance and principles of financial risk management. The course contains a substantial self-study component, and candidates are required to present a detailed case study as part of course requirements.

Assessment: 100% coursework

# **RECO6018** Modern developments in the law of construction contracts (6 credits)

This course examines the modern development in the laws of contract and torts: interpretation, comparison and application of various standard forms of building and civil engineering contracts and sub-contracts: programmes, interim certification, set-off of payments, pay when paid clause, variation and architect's instruction, delay and extension of time, liquidated damages; preparation, evaluation and presentation of claims; contractual, non-contractual and ex-gratia claims; global claims; advanced claims techniques; contractual and common law remedies; bankruptcy and insurance in the context of the construction industry.

Assessment: 100% examination

# **RECO6020** Dissertation (18 credits)

This course requires candidates to conduct a research and present the findings as a dissertation. The dissertation shall be on an approved topic relevant to the curriculum.

#### **RECO6027** Business process engineering (6 credits)

This course covers 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 Modeling.

Assessment: 100% coursework

#### **RECO6028** Procurement systems (6 credits)

This course examines the strategic and emergent issues in construction procurement: a definition of procurement systems; organising the project procurement process; contract strategy; international comparisons of procurement systems; applying multiple project procurement methods to a portfolio of projects; performance criteria for evaluating construction project; applying relational contracting in the supply chain; selection criteria.

Assessment: 100% coursework

# **RECO6031** Alternative dispute resolution (6 credits)

This course examines the theory and practice of dispute resolution: negotiation; mediation; litigation; arbitration and adjudication; practice and procedure; application in the real estate and construction industry.

Assessment: 100% examination

# **RECO6032** Law and practice of arbitration (6 credits)

This course provides an introduction to alternative dispute resolution and examines the process of arbitration in Hong Kong and China through common law and statute; procedure and proof; domestic and international arbitrations; arbitration institutions; the role of expert witnesses; application in the real estate and construction industry.

Assessment: 100% examination

#### **RECO6038** Administrative law in land development in Hong Kong (6 credits)

This course covers the following aspects: the Basic Law; the HKSAR Government; judicial reviews with the focus on lease control, planning, building and environmental protection; remedies; interpretation of lease and town plans; lease enforcement; planning enforcement and building control with the focus on development potential and liabilities of owners and occupiers.

Pre-requisite: RECO6039. Planning and building development

Assessment: 20% coursework and 80% examination

# RECO6039 Planning and building development (6 credits)

This course deals with building development by examining the nature and procedures of plan preparation, planning application and building applications; inter-relationship between lease, planning and building control; planning appeals and building appeals.

Assessment: 40% coursework and 60% examination

#### **RECO6040** Construction safety management (6 credits)

This course covers introduction to construction site organisation; Occupational Safety and Health regulations; Workers compensation and civil claims; Accident reporting systems; Safety management systems; Site safety audits; Site safety initiatives; occupational health on site; Ergonomics and manual handling; dangerous substances on site; Codes of practice and standards; Design and construction considerations; Temporary works; Plant, tools and machinery; Personal protective Equipment; Unions and subcontractors; Workers and dangerous trades.

Assessment: 100% coursework

#### **RECO6041** Development projects (6 credits)

This course examines actual problem associated with planning and development projects in Hong Kong and selectively, other cities around the region. It is case-based, highly interactive and encourages candidates to explore different ways of finding solutions inherent to the land conversion process.

Assessment: 100% coursework

# **RECO6042** Law for the real estate and construction industry (6 credits)

This course provides a study of the law relating to the real estate development and construction processes: Acquisition, ownership, management and disposal of land and real estate; building and planning control; finance of development; building contracts (standard forms, comparative studies); agency law; alternative dispute resolution movement.

Assessment: 100% examination

#### **RECO6043** Construction business management (6 credits)

This course examines the management of construction businesses which covers construction markets, case studies, strategic management, marketing, international contracting, recruitment and human resources management, ethics, transparency.

Assessment: 20% coursework and 80% examination

#### **RECO6044** Planning and markets (6 credits)

This course examines alternative institutional means of coordinating specialized land uses from a transaction cost perspective. The approaches of Pigou, Coase and Hayek are compared. The idea of planning by contract is contrasted to that by edict and command.

Assessment: 80% coursework and 20% examination

# **RECO6046** Research seminar (6 credits)

This course aims to familiarize candidates with the rigours of producing a research proposal. Main issues include the development of aims and objectives of the proposed research, determination and justification of a suitable methodology to test hypotheses (if any) and deciding on a practical curriculum for the execution of the research project. Candidates are required to give research seminar presentations of their work as they progress.

# RECO6048 An introduction to sustainability and its relevance to the construction sector (6 credits)

This course is designed to give candidates a broad introduction to the theoretical concepts of sustainability as well as the practical implications that it has for the construction industry in HK and China and especially to the building design team. The course covers the following aspects: Introduction to the concept of sustainability - historical context; Sustainable development; Environmental impacts; The construction industry and its response to sustainable development; Life Cycle Assessment and its significance; and measurement of social impacts.

Assessment: 20% coursework and 80% examination

# **RECO6051** Land management in China (6 credits)

History of land management in China; transitional reforms in land markets; urban land reform in China; rural land and urban villages in China; housing reform in China. Study trip to Real Estate College at the Beijing Normal University, Zhu Hai campus. Bureaucratic and organizational structure in land management in China; current legislations in land management in China; urban and rural land management practice in China.

Assessment: 20% coursework and 80% examination

#### **RECO6058** Project workshop (CPM) (Capstone Experience) (6 credits)

This course is comprised of project workshop designed for construction project management. The project workshop reflects the inter-disciplinary nature of the curriculum and aims to synthesize and apply the theory taught in the lecture courses to a problem which in practice would engage the combined skills of a number of the professions which constitute the property and construction industries. Through this candidates will experience the demands and importance of teamwork under the exigencies of actual commerce, and will appreciate the significance of their role and that of others in the context of the environment, planning, the property and construction industry and accountancy.

Assessment: 100% coursework

# **RECO6060** Development case studies (QS) (6 credits)

This course is comprised of development case studies designed for the professional discipline of Quantity Surveying. It examines in detail the interaction of the various components within the development process. It utilizes a series of case studies of actual projects of varying scale and complexity which will allow for an analysis of the essential inputs to the process and the effects these may have on outputs and the final product.

Assessment: 100% coursework

#### **RECO6064** Professional report (QS) (6 credits)

The Professional report represents an individual piece of work that emphasizes one of the specialist elements within the professional discipline of Quantity Surveying.

#### **RECO6066** Real estate development and land policies (6 credits)

The purpose of this course is to examine various aspects of urban land policies, such as economic and social, with particular reference to the real estate development. In addition, socio-economic issues evolving around land market, land use policies as well as the land management system also form the core substance in this course. Impacts of the built environment on various aspects of our community will also be examined with reference to urban land policies.

Assessment: 40% coursework and 60% examination

#### **RECO6067** Public sector project evaluation (6 credits)

This course approaches public sector project evaluation from a modern public sector management perspective. It introduces public sector finance and the economics and finance frameworks within which public sector projects are proposed, evaluated and chosen. It includes practical instruction in the principal decision-making methodology, cost-benefit analysis, and developments in the field of public sector cost of capital. It also introduces the influence of sustainability concerns and public sector project evaluation.

Assessment: 20% coursework and 80% examination

# **RECO6068** Construction practice in Mainland China (6 credits)

This course examines the theories of international business and their applications in international construction with a particular focus on China. It focuses on the following aspects of international construction: An overview of international construction business; the regulatory framework shaping the sector; Construction multinational corporations (MNCs) and project delivery; Competition in the global construction market; International construction project practices; Culture and corporate social responsibility (CSR) in the international construction context.

Assessment: 40% coursework and 60% examination

#### **RECO7071** Marketing strategies and management in real estate (6 credits)

This course deals with the basic principles of marketing strategies and management in general, and their application in the real estate market in particular. It introduces the concepts of marketing strategies and management, marketing research techniques, media management, marketing budgeting, consumer behaviour and analysis in the real estate market. It also examines the issues of ethics in marketing and the legal constraints in the application of different marketing techniques under different cultural and socio-economic backgrounds.

Assessment: 40% coursework and 60% examination

# **RECO7072** Cities and Real Estate Development (6 credits)

This course deals with the real estate development, market and business in various cities with a particular emphasis on institutional framework and market economy aspects such as real estate regulation, investment practices and development procedures. It also examines and compares key factors affecting real estate development in different cities.

#### **RECO7073** Design Management (6 credits)

This course introduces the management of various aspects of business strategy delivered through design including managing the design team, value management, briefing, roles and working of conceptual, schematic and detail design phases, process protocol, process mapping techniques, design economics.

Assessment: 40% coursework and 60% examination

# **RECO7074** Management theory and projects (6 credits)

This course examines fundamental knowledge in management theory and its application to project-based organizing, the management of projects and project management in construction. This includes both organizational and individual level theories and their application to the project-based organization as well as the projects on which they take part.

Assessment: 50% coursework and 50% examination

# **RECO7075** Management practice and projects (6 credits)

This course provides a framework for analyzing management practice in the real estate and construction industry: people in organizations, organizational culture & climate, leadership, motivation, commitment, cooperation & collaboration, decision making, negotiation, meetings, presentation techniques, conflict management, case studies of management issues.

Assessment: 100% coursework

#### **RECO7077** Construction business case studies (6 credits)

This course is comprised of a number of task-specific exercises relevant to the Quantity Surveying discipline which can be independently developed and tested. There will be an emphasis on professional/practice skill through practice-based case histories and/or assignments.

Assessment: 100% coursework

#### **RECO7078** Real estate business case studies (6 credits)

This course examines the practices and processes involved in real estate development taking into account of different perspectives from different stakeholders. Case studies are employed to encourage students to explore different solutions to problems associated with real estate development projects in public and private sector.

Assessment: 100% coursework

#### **RECO7079** Occupational health, safety and well-being in construction (6 credits)

This course covers legislation & safety management systems; Workers' health & well-being; Safety plans, method statements & risk assessments; OHS initiatives; Social capital & OHS; Institutional analysis of OHS management; Heat stress management.

#### **RECO7084** Strategic facility planning and asset management (6 credits)

This course covers strategic dimensions of facility and asset management in corporations. Facility planning as a strategic process should be considered at the policy formulation and portfolio level. Need for a whole-life asset management framework for managing buildings as a special class of durable assets. Principles of asset management, asset management processes, applications and case studies.

Assessment: 100% coursework

# RECO7085 Technology integration for real estate and facility management (6 credits)

This course examines how state-of-the-art technologies will impact on processes over the life-cycle of real estate assets from design, development to facility management of operational buildings. Considerations of technology impact will be examined through a classification framework that distinguishes embedded technologies, enabling technologies and enhancing technologies as potential avenues of utilizing appropriate technologies to continuously improve systems and processes in real estate and asset management.

Assessment: 100% coursework

# **RECO7086** Construction for professionals (6 credits)

The course prepares candidates for the essentials of basic building design and construction commonly adopted in Hong Kong. Topics cover building structures and envelopes, materials and assemblies, plumbing and drainage, power supply, HVAC, lifts and escalators, fire services, and electrical installation.

Assessment: 50% coursework and 50% examination

# RECO7087 Green buildings and sustainable built environment (6 credits)

This course covers the sustainability principles and green building development in the industry. It examines the following key areas: green building concepts and green features; environmental friendly designs and technologies, green procurement, Hong Kong Building Environmental Assessment Method (HK-BEAM), Green Building Assessments, BEAM Professionals, Green Property Management concepts and practices.

Assessment: 100% coursework

# RECO7089 Property rights, built heritage conservation and sustainable development (6 credits)

Neo-institutional and Schumpeterian economics are applied to sustainable development via innovations in real estate, systems of de jure property rights, de facto access restrictions, concepts of rent-seeking, subsidiarity and basic survey mapping, and aerial photo interpretations.

Assessment: 100% coursework

#### **RECO7091** Construction claims (6 credits)

This course provides an introduction of the law relating to construction claims in the following aspects: Types of claims: contractual claims, extracontractual claims, ex-gratia claims and quantum meruit claims; Principles and assessment of claims: acceleration and prolongation, loss and expense, common

law damages, delay and extension of time, program analysis, burden and standard of proof, procedural requirements, common heads of claim.

Assessment: 50% coursework and 50% examination

#### **RECO7092** Greater China real estate (6 credits)

This course covers the real estate business practices including investment models, policy, law and taxation in Greater China. It examines the characteristics of the property market, business opportunities and the real estate development process in different cities. It focuses on the understanding of real estate business operations in various cities in Greater China.

Assessment: 100% coursework

# **RECO7094** Construction management practice (6 credits)

This course provides a framework for analyzing management practice in the construction industry: people in organizations, organizational culture & climate, leadership, motivation, commitment, cooperation & collaboration, decision aiding technologies, decision making, negotiation, meetings, presentation techniques, conflict management.

Pre-requisite: RECO7074. Management theory and projects

Assessment: 100% coursework

#### MHMP8003 Practices of housing management and maintenance (6 credits)

This course aims to introduce and consolidate candidate's understanding of major concepts and practices of housing management in Hong Kong, including the management of building maintenance. Its objectives are to discuss the contexts and concepts of housing management; to canvass the tasks and skills in the management of residential properties and related community and commercial facilities; to introduce candidates to major building structures, building fabrics and building materials and their maintenance problems and maintenance policies and their implementation; and to identify the role of housing managers in the maintenance of residential properties.

Assessment: 100% coursework

# MHMP8006 Housing, planning and sustainability (6 credits)

This course aims to provide an integrative and in-depth understanding of Hong Kong's housing system and its relationships with urban planning and the concepts of sustainable development. It discusses the theoretical and practical aspects of housing, making special reference to their relationships with urban planning and sustainable development. Major topics include the housing system concepts, the political economy of housing policies, land use planning and housing affordability, principals of residential planning, housing policy analyses, housing market analyses, and the application of the sustainable development perspective to housing analyses.

# URBP8003 Land and real estate markets: smart governance, finance and business models (6 credits)

This course provides a land and real estate development perspective on urban development. Cities face continuous processes of both expansion and transformation. Population growth and economic growth lead to expansion, while processes of obsolescence and decline lead to a demand for urban transformation projects. These processes usually require investments in land and property (re)development, while planning interventions provide guidelines to investors, sometimes as opportunities, but also as barriers to what an investor might see as a profitable investment. The interaction between planning interventions on the one hand and land and real estate investments on the other hand is the central theme of this course. Starting from that interaction the course pays attention to different planning approaches and their impact on land and real estate markets, the dynamics of land and real estate markets, investment behaviour by private and public developers, public private partnerships, land management strategies and value capturing mechanisms and smart land and real estate investment strategies.

Assessment: 100% continuous coursework assessment