

**SYLLABUSES FOR THE DEGREE OF
MASTER OF SCIENCE IN CONSTRUCTION PROJECT MANAGEMENT
MSc(ConstProjectMan)**

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

These Syllabuses apply to candidates admitted to the Master of Science in Construction Project Management in the academic year 2023-24 and thereafter.

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 curriculum will be related to developments not only in Hong Kong but also in the rest of 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 60 credits of prescribed courses.

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

RECO6004 Construction Economics;
RECO6018 Modern Developments in the Law of Construction Contracts;
RECO6028 Procurement Systems;
RECO6042 Law for the Real Estate and Construction Industry;
RECO6058 Project Workshop (CPM)*;
RECO6060 Development Case Studies (QS);
RECO7074 Management Theory and Projects;
RECO7079 Occupational Health, Safety and Well-being in Construction;
RECO7096 Information Management in Construction; and
RECO7098 Project Risk Management

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. Project Workshop (CPM) (RECO6058) is a capstone course, which focuses on the integration and application of knowledge and skills that candidates have acquired throughout their studies. Candidates who take Dissertation (RECO6020) course may have to complete the curriculum with more than 72 credits.

RECO6003. Economics for Professionals (6 credits)

This course introduces a broad range of economic analytical techniques for professionals in real estate and construction industry. The participants will revisit the function of modern economy from an economic perspective. The course will begin with the fundamental market model with economic analysis of costs. Then, it will investigate the economic reasons behind various behaviour of consumers and firms in real world. The role of government policy will be examined. The course will also discuss the frontiers in the interdisciplinary approaches of economic analysis.

Assessment: 100% coursework

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: 100% coursework

RECO6018. Modern Developments in the Law of Construction Contracts (6 credits)

This course examines the modern development in the laws relating to construction contract: interpretation, 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; 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.

Assessment: 100% coursework

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 basic, strategic and emergent issues in construction procurement. Basic theoretical perspectives of construction procurement are first covered. Topics on developmental orientated procurement systems are then covered as a vehicle for improved construction procurement. These include procurement routes and strategy and collaborative project procurement. Emergent issues are introduced to provide contemporary perspectives in the management of construction procurement. Topics covered include public sector procurement, international construction procurement and the use of information technology in construction procurement.

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 examines the process of arbitration and adjudication in Hong Kong.

(1) Arbitration - commencement, appointment of arbitrator, procedure and proof; preliminary orders and interim measures, enforcement of arbitral award, recourse against awards, third party funding, arbitration institutions;

(2) Adjudication - feature, contractual and statutory adjudication, multi-tier dispute resolution clause in construction contract; commencement, appointment of adjudicator, procedures, the proposed Security of Payment Legislation and its spirit, adjudicator's decision and its enforcement, challenge to adjudicator's decision, duties and powers of adjudicators; and

(3) the role of expert witnesses.

Assessment: 100% 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: 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: Building and planning control; building contracts (standard forms, comparative studies); agency law; land tenure in Hong Kong; contract for the sale of land; co-ownership; mortgage; deed of mutual covenant and management of multi-storey buildings; financing by pre-sale.

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

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.

Assessment: 100% coursework

RECO6058. Project Workshop (CPM) (Capstone Experience) (6 credits)

This course is an intensive simulation of running a construction company and reflects the interdisciplinary nature of the curriculum and aims to synthesise and apply the theory taught in the lecture courses. Students work in teams to run a construction company through simulations. Students will learn in the simulation how to engage the combined skills of the professions which constitute the property and construction industries. Through this students will experience the demands and importance of teamwork under the exigencies of a real business environment and will appreciate the significance of their role and that of others in the context of the business. Students will hone the skills of running a company and winning projects, accountancy, HR and the range of other skills needed to thrive in the property and construction industry.

Assessment: 100% coursework

RECO6060. Development Case Studies (QS) (6 credits)

This course is designed for the professional discipline of Quantity Surveying in Hong Kong. Through the lens of real project cases, the course examines the interactions of various components within project development processes; and analyzes the essential inputs to such processes and the effects these inputs may have on the outputs and the final products.

Assessment: 100% coursework (Group Assignment and Individual Assignment)

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

RECO7074. Management Theory and Projects (6 credits)

This course examines fundamental knowledge in management theory and its application to project-based organising, the management of projects and project management in construction. This includes both organisational and individual level theories and their application to the project-based organisation 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 analysing management practice in the real estate and construction industry: people in organisations, organisational 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

RECO7079. Occupational Health, Safety and Well-being in Construction (6 credits)

This course introduces occupational health, safety and well-being (OHS&W) on construction sites: Occupational Safety and Health regulations; Accident reporting systems; Safety management systems; Site safety audits; Site safety initiatives; occupational health and wellbeing on site; Ergonomics, manual handling, dangerous substances, Codes of Practice and standards; Design and construction considerations; Personal protective equipment; Unions and subcontractors; Workers and dangerous trades; Accident causation and analysis theories. The course also covers theoretical perspectives in systems approach to safety and human factors.

Assessment: 100% coursework

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

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, extra-contractual 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, programme 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, financial arrangement, 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, particularly integrates innovations & technology as well as the most update national strategy in the area of Digitization, PropTech, Sustainable Finance, ESG & Carbon Neutrality.

Assessment: 100% coursework

RECO7094. Construction Management Practice (6 credits)

This course provides a framework for analysing management practice in the construction industry. Students will learn from senior managers and directors of top organisations in the real estate and construction (REC) industries. They will describe the management practices in their respective disciplines, organisations and challenge students to discuss the key issues facing REC at current time. Students will be asked to reflect on what they have learned and are encouraged to quiz the speakers in order to enhance their learning and future prospects in the industry.

Pre-requisite: RECO7074. Management Theory and Projects

Assessment: 100% coursework

RECO7095. Building Design and Construction (6 credits)

This course provides both theoretical knowledge and practical applications about functional design and conventional construction of buildings mainly in Hong Kong. It covers various design and construction aspects of buildings, including envelopes and structures, materials and assemblies; plumbing and drainage; power supply, HVAC; lifts and escalators; fire services; electrical installation; and the inspection and maintenance aspects of these facilities.

Assessment: 100% coursework

RECO7096. Information Management in Construction (6 credits)

This course examines fundamental knowledge in information management and its application to the management of projects and project management in construction. This includes an introduction to information management, information management theories, through-life information management, common information management tools and techniques (e.g. the use of Common Data Environment – CDE), and digital information management (based on ISO 19650) and its effect on collaboration, coordination and integration, commercial and contractual aspects of construction (e.g. Employer Information Requirements (EIR)).

Assessment: 60% coursework and 40% examination

RECO7097. Modern Developments in Construction (6 credits)

This course explores modern developments in construction from institutional, strategic, commercial and technological perspectives. This includes the effects of globalisation, evolving competitive strategies, procurement innovation, and industrialisation of construction, as well as theoretical developments and new technologies and approaches in construction project management and their applications in contemporary construction practice. A particular focus is given to the changes in practice enabled by state-of-the-art digital and smart technologies.

Assessment: 100% coursework

RECO7098. Project Risk Management (6 credits)

This course examines risk management as it applies to the management of projects and project management in construction. This includes an introduction to the principles of managing risks and uncertainty; risk identification for portfolios, programmes and projects; qualitative and quantitative approaches to risk analysis; risk modelling and simulation; managing risk allocation and mitigation through procurement and contract strategies; and risk management on site.

Assessment: 100% coursework

MHMP8003. Practices of Housing Management and Maintenance (6 credits)

This course aims to introduce and consolidate student'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 students to major building fabrics and E&M systems, to analyse their maintenance practices and problems ; and to identify the role of housing managers in the maintenance of properties.

Assessment: 100% coursework

RECO7108. Sustainability and ESG in Real Estate and Construction: Perspectives and Approaches (6 credits)

This course encompasses a broad spectrum of knowledge and practices related to sustainability and ESG (Environmental, Social, and Governance) considerations. It delves into various topics, including sustainability and ESG challenges, scientific investigations, socio-economic-ecological dilemmas, as well as strategic management adjustments and their impacts. Our course offers industry professionals the necessary theoretical knowledge and practical insights to enhance their decision-making capabilities in current and future business operations. Drawing on academic theory, we supplement the learning experience with relevant real-world case studies that focus on specific sustainable development and ESG challenges. These case studies, such as 'Climate Solutions and Sustainable Investment,' 'Scope 1, 2, and 3 carbon emissions,' 'housing inequality and affordability,' 'ESG Regulatory Reporting and Compliance,' and 'ESG & Climate resilient Indices,' serve as catalysts for class discussions and debates. Consequently, the course fosters extensive discourse on multiple dimensions of sustainability and ESG within the realms of Real Estate and Construction, given its pioneering nature.

Assessment: 100% coursework

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