Master of Science in Construction Management

Programme	Master of Science in Construction Management 理學碩士(建造管理)
Award Title	Master of Science in Construction Management 理學碩士(建造管理)
Offering Academic Unit	Department of Architecture and Civil Engineering
Mode of Study	Combined mode

Normal Period of Study

- 1 year (full-time)

- 2 years (part-time)

Maximum Period of Study

- 2.5 years (full-time)

- 5 years (part-time/combined mode)

Credit Units Required for Graduation

Master's Degree - 30 credit units

Postgraduate Diploma - 24 credit units

Programme Aims

The programme aims to:

1. provide students with environment in which to develop their intellectual, analytical and critical abilities and to enable them with the latest technologies to exercise these abilities in the built environment and the international project management field.

2. provide a basis for continuing professional development, and encouragement for professional specialization in the local construction industry. This platform is achieved by maintaining balance activities among research, intellectual and professional developments.

3. develop qualified and experienced real estate and construction professionals become professional managers and leaders in the field with the management principles and advanced techniques required for the effective management of the real estate development and construction process.

4. develop the potential professional manager's leadership, maximising quality attainment in the built project, and developing the international vision on the project management field.

Programme Intended Learning Outcomes (PILOs)

For Construction Project Management Stream:

Upon successful completion of this Programme, students should be able to:

1. apply the financial management technique in real estate development projects and/or construction works;
2. analyze economics of real estate development projects and/or construction works and related process;
3. apply effective project management techniques to real estate development projects and/or construction works;
4. apply contracts management to real estate development projects and/or construction works;
5. implement effective resources management to real estate development projects and/or construction works;
6. explain the relationship between the project control functions and business management functions of a developer and/or the same of a construction firm and utilize advance techniques and technology which are available for enhancement of effectiveness and efficiency of the planning and control functions;
7. make an original discovery and innovation in the learning process in compliance with CityU's academic strategy.

For Digital Construction Management Stream^:

Upon successful completion of this Programme, students should be able to:

1. apply digital technologies to assist the planning and management of construction projects;
2. implement virtual environment in design and construction stages of construction projects;
3. practise data driven approaches in project planning and management;
4. create research approach to solve problems in construction project management;
5. communicate effectively with stakeholders in building and construction industry in topics related to digital construction management.

Programme Requirements

1. Construction Project Management (CPM) Stream

➢ **Core courses** (15 CUs for FT students, 6 CUs for PT students)

Course Code	Course Title	Credit Units	Remarks
CA5104	Management Workshops	3	
CA5106	Project Management	3	
CA6537	Dissertation – Construction Project Management	9	Required course for full-time students only.

➢ **Elective courses** (15 CUs for FT students, 24 CUs for PT students)

FT and PT students are required to select 15 and 24 CUs of electives from their own stream respectively. Students not taking CA6537 Dissertation – Construction Project Management must select CA5603 Professional Research Methods.

Course Code	Course Title	Credit Units	Remarks
CA5018	Modelling and Computational Techniques for Built Environment	3	
CA5101	Production Management	3	
CA5108	Virtual Design and Construction	3	
CA5217	Environmental Econmics, Planning and Policy	3	
CA5236	Transportation and Land Planning	3	
CA5603	Professional Research Methods	3	MUST be taken by students not taking CA6537 Dissertation.
CA6110	Statistical Methods and Data Analytics	3	
CA6120	Value Management for Construction	3	
CA6232	Contract Strategy and Administration	3	
CA6233	Contract and Dispute Management	3	
CA6318	Planning Practice, Law, and Ethics in Hong Kong	3	
CA6537	Dissertation – Construction Project Management	9	Elective for part-time students only. Students not taking CA6537 Dissertation must select CA5603.

2. Digital Construction Management (DCM) Stream^

➢ **Core courses** (15 CUs for FT students, 6 CUs for PT students)

Course Code	Course Title	Credit Units	Remarks
CA5108	Virtual Design and Construction	3	
CA5563	Advanced Digital Construction	3	New course
CA6538	Dissertation – Digital Construction Management	9	Required course for full-time students only.

➢ **Elective courses** (15 CUs for FT students, 24 CUs for PT students)

Course Code	Course Title	Credit Units	Remarks
CA5018	Modelling and Computational Techniques for Built Environment	3	
CA5106	Project Management	3	
CA5252	Building Environment Modelling for Sustainability Analysis	3	New course
CA5564	Sensing and Data Analytics for Smart Buildings	3	New course
CA5603	Professional Research Methods	3	MUST be taken by students not taking CA6538 Dissertation.
CA6110	Statistical Methods and Data Analytics	3	
CA6220	Urban Economics and Regional Planning	3	
CA6241	Geographic Data Management and Planning Analysis	3	
CA6538	Dissertation – Digital Construction Management	9	Elective for part-time students only. Student not taking CA6538 Dissertation must select CA5603.
SEE6115	Carbon Audit and Management	3	To be offered by SEE
PIA5003	Project Planning and Management for Development	3	To be offered by AIS

Additional Information

i. This master's degree programme allows exits at the postgraduate diploma.
- To obtain a Postgraduate Diploma, students must complete 24 credit units as per programme structure of *MSc in Construction Management* for an intermediate award.
- For Certificate of Completion, students have to complete all coursework, pass all examinations, and with an attendance rate of at least 75%.
- For Certificate of Attendance, students have to achieve an attendance rate of 75%.

ii. Students taking the part-time mode may opt for taking dissertation or course modules at their own discretion provided that:
- The total number of credit units taken shall be no less than 30; and
- Students not taking CA6537 Dissertation – Construction Project Management must select CA5603 Professional Research Methods.
- Students not taking CA6538 Dissertation – Digital Construction Management must select CA5603 Professional Research Methods.

iii. For courses set with pre-cursor(s), ACE Department requires that all students must have attempted (including class attendance, coursework submission and examination) the precursor course(s) so identified.

iv. Where courses are assessed by a combination of coursework and examination, to pass a course, students must obtain minimum marks of 30% in both coursework and examination components, and an overall mark of at least 40%.

v. The teaching schedules of some courses offered in Summer Term may start a few weeks earlier than the normal University schedule; students are advised to check the teaching schedules with the Course Leaders before registering for the courses.

Related Links

Department of Architecture and Civil Engineering

^Subject to University approval