

Admission Requirements for the Building Discipline

Candidates applying for admission to the class of Member in the Building Discipline of the HKIE are required to have the following:-

1. Academic Requirement

The academic requirement for Corporate Membership in the Building Discipline is an engineering degree accredited by the Institution or signatories of the Washington Accord relevant for Building Discipline or an honours degree in Building recognised by the Building Discipline up to intake year 1997.

"Topping-up" is required for candidates as follows:-

- (i) Building graduates who hold an ordinary degree in building recognised by the Building Discipline or, a pass in the CIOB Part II or, an honours degree in Building recognised by the Building Discipline are required to top-up with the Postgraduate Certificate in Building Engineering or Postgraduate Diploma in Building Engineering and Management offered by HKU SPACE from 1998 intake.
- (ii) Civil and Structural Engineering Graduates of accredited engineering programmes of the Institution or signatories of the Washington Accord are required to top up with a) courses offered by the City University of Hong Kong (Appendix I refers) or, b) a master degree in Building or Construction Management or c) two extra years (on top of the normal requirement) of relevant and responsible experience in building recognized by the Building Discipline.
- (iii) Graduates who hold accredited engineering degrees other than the above will be assessed and advised for appropriate "top-up" requirements individually.

For the top up courses available at the City University of Hong Kong and the HKU SPACE, please refer to the Appendix I.

*For Members of the HKIE in the Civil or Structural Discipline, two extra years of relevant experience is an alternative in satisfying the academic requirements for Building Discipline.

2. Training/Experience Requirement

Scheme 'A'

2 years' training in building engineering + 2 years' responsible experience in building engineering projects.

A total of 4 years' training and responsible experience in building engineering projects.

General Experience Route

Candidates who have not undertaken pre-approved training will be required to have had a minimum of six years' working experience in building engineering, post academic qualification.

Details are included in Section 3 of "M3 - Routes to Membership".

Candidates who satisfy the above requirements will be accepted for Professional Assessment.

3. Professional Assessment

All candidates are expected to deliver the following documentation together with their applications:

Training & Experience Report

Details are included in Section 4 of "M3 - Routes to Membership".

Drawings and documents

All candidates are required to submit examples of recent work. See Guidelines for Submissions in the Building Discipline.

Logbooks if Scheme 'A'

All documents should be the candidate's own work and documents **must be "verified"** by a Corporate Member of the Institution or the employer.

Documents submitted will be treated as confidential and will be returned to the candidate. Candidates should however retain copies of all documents submitted as the Institution does not accept responsibility for any documents lost or damaged.

Establishment of sub-list of Building Discipline Members as Building (Project Supervision) Members

The Qualification and Membership Board approved the establishment of the above sub-list with the following criteria:

- (i) Full Corporate Members of HKIE (Building) with proven experience in project management, development or related experience in responsible position (including university professors);
- (ii) With more than 2 years experience of the above after qualified in Building Discipline.

Candidate who wishes to be included in the sub-list is required to submit a 2-page curriculum vitae which demonstrates experience in the above mentioned areas for assessment by the Building Discipline Advisory Panel.

Guidelines for Submissions in the Building Discipline.

Samples of candidate's own work showing his involvement in some not all of the following areas should be submitted:

A. Planning Work

1. Establishing Work Content
 - a) Quantifying Work to be done
 - b) Work Measurement
2. Method of Production
 - a) Method Study
 - b) Method Statements
 - c) Organization Charts
 - d) Temporary Works Design
3. Programming
 - a) Tender Programming
 - b) Master Programming
 - c) Short Term Programming
 - d) Computer applications

B. Producing work

1. Resourcing
 - a) Materials Resources
 - b) Plant & Equipment Resources
 - c) Own Labour Resources
 - d) Sub-Contractors Resources
2. Organizing
 - a) Information co-ordination and checking
 - b) Setting Out
 - c) Co-ordination
 - d) Contract Administration
 - e) Contract arrangements, forms of contract and specifications
3. Supervising
 - a) Work Allocation
 - b) Completion of Work
 - c) Safety Supervision
 - d) Quality Supervision
 - e) Quantity Supervision
 - f) Testing & Commissioning
 - g) Statutory Requirements

**Hong Kong Institution of Engineers
Bridging Courses for the Building Discipline**

I. Department of Architecture and Civil Engineering, City University of Hong Kong

Certificate of Completion in Building Studies

Introduction

The following candidates are required to complete the top-up courses to be considered as fulfilling the academic requirement for Corporate Membership in the Building Discipline:

1. Building graduates who hold an ordinary degree in building recognized by the Building Discipline, or, a pass in the CIOB Part II or, an honour degree in Building recognized by the Building Discipline from 1998 intake (Section II refers);
2. Civil and Structural Engineering graduates of accredited engineering programs for the Institution or signatories of the Washington Accord.

Aims

The overall aim of the module is to broaden and deepen participants' knowledge in building construction management and building services engineering to bring candidates in line with the requirements of a building engineer.

Course Structure

The course consists of two modules each with 42 contact hours. In addition, 16 hours of Continuing Professional Development (CPD) Activities, such as site visits, seminars and non-credit courses, etc. are required.

Module	Course offering	Institution	Remarks
Project Management	CA5106 Project Management	CityU	Postgraduate level, offer in the evening
Building Services Engineering	CA5601 Building Engineering System and Maintenance	CityU	Postgraduate level, offer in the evening

CPD events - 16 hours of approved CPD events

Medium of Instruction

English

Contact Hours

The course lasts for 14 weeks for CityU. The total contact hour is 100 including 84 hours of taught course and 16 hours of CPD events (the CPD events have to be taken by candidates themselves and approved by the course leader before the certificate is awarded).

Assessment and Award

The taught module will be assessed by coursework and examination. Students who have passed the taught courses with at least 70% attendance and completed CPD events will be granted a Certificate of Completion in Building Studies. Students are required to provide evidence of CPD attendance for consideration of the examination committee.

Moderators (proposed)

Ir ST Chan, Chairman, Building Discipline Advisory Panel, HKIE

Ir Dr. KC Lam, Associate Professor, Department of Building and Construction, CityU

Schedule and Venue

Postgraduate classes are tentatively scheduled during weekday evening at CityU or designated venues.

Application and Admissions

Entrance Qualifications

Degree holders from civil engineering and structural engineering program*

*Applicants should check with HKIE for whether their degrees are recognized by the Building Discipline before applying the program

Enrolment procedures and fees

CityU

Applicants who do not wish to pursue a full programme of study at the University may apply for admission as a visiting student to attend selected course(s) and take the assessment as defined in the programme scheme. Visiting students will only be admitted if the relevant School/ Department is satisfied with their academic suitability for the course(s) applied for, and if there are places in the lecture groups for the course(s) concerned.

For details of the information please refer to the following web-site:

<http://www.sgs.cityu.edu.hk/prospective/visitingtpg/>

Application and Enquiries

If you are interested in applying for the course, please contact Ms Joyce Miu of **Department of Architecture and Civil Engineering, City University of Hong Kong, 83 Tat Chee Avenue, Kowloon.**

Enquiry

Ms Joyce Miu

Tel: 2788 7122 Fax: 2788 7612

Email: cljoyce@cityu.edu.hk

II. HKU SPACE

Postgraduate Certificate in Building Engineering
Postgraduate Diploma in Building Engineering and Management

Introduction

The increasing complexity and modernization of buildings in Hong Kong necessitates building engineers to equip themselves with a high level of technical competence, with an emphasis on the technologies and management of numerous, diverse and complex resources of building projects.

The Postgraduate Certificate in Building Engineering (PgCert BE) aims to train competent building engineers who shall demonstrate the synthesis of wide-ranging grounded theories and contemporary techniques to give advice on a wide range of technical problems. The modules from the Postgraduate Diploma in Building Engineering and Management (PgDip BEM) further reinforce students' understanding on decisional skills, the legislative context of contract administration and the economic theories in which project development operates.

Aim and Objectives

The curricula are designed by a pool of academics with substantial input from practising professionals of the relevant field. Besides the grasp of wide-ranging technical know-how and memorizing solutions to the problems that have happened in the past, students should demonstrate the synthesis of wide-ranging engineering knowledge in the construction production process. The programmes also highlight the ability of students to solve problems and make decisions using critical and analytical thinking. Overall, they will be able to contribute effectively to project teams engaged in complex building projects.

Upon completion of the programme, graduates should have developed the following attributes:

- applying and developing the principles, skills and practices appropriate to different types of construction in design considerations, production phase, and the management, maintenance and adaptation of completed construction projects.
- being competent in analyzing and giving authoritative advice on a wide range of technical problems.
- applying knowledge and experience to initiate practical development.
- deriving an awareness and concern with regard to the role and functions of professional building engineers and their connection with the other professionals involved in the multi-disciplinary building industry for achieving the best value for money.
- having a thorough insight of the management skills, planning practices, legal environment and the financial methods of the construction industry.
- exercising original thought and judgment on solving matters of building production management.
- assimilating the modern trend in skill formation process and acquiring transferable skills which are conducive to future academic and professional development.
- looking beyond the limited information provided, consulting newly published works on a world-wide basis and conducting own research in solving the problems.

Programme Duration

The Postgraduate Certificate programme is designed for one-trimester part-time study of around 5 months and it is 12 months for the Postgraduate Diploma over 3 trimesters. Classes will normally take place in two 3-hour evenings per week but a longer duration may be required for laboratory sessions. In addition to these normal lectures, compulsory workshops may be scheduled at weekends to ensure minimum disruption to students' work commitments.

Articulation

Postgraduate Diploma graduates can be exempt from 2 and 3 modular exemptions of the following programmes respectively.

University of Bath, UK (Distance Learning Programme offered through HKU SPACE)*

- M.Sc. in Construction Management

University of Greenwich, UK (Distance Learning Programme offered through HKU SPACE)*

- M.Sc. in Construction Project Management

* These are exempted courses under the Non-Local Higher and Professional Education (Regulation) Ordinance. It is a matter of discretion for individual employers to recognize any qualification to which these course may lead.

Programme Structure

Postgraduate Certificate students are required to complete 2 modules in Trimester 1. Students registered for Postgraduate Diplomas shall complete further 3 modules in Trimester 2 and 3.

Postgraduate Certificate in
Building Engineering

BE66036 Temporary Works Design

BE66037 Geotechnical and Foundation Engineering

Postgraduate Diploma in
Building Engineering and Management

The 2 modules in PgCert BE

BE66040 Property Development and Economics

BE46024 Construction Law

BE66041 Project Management

Entry Requirements

Applicants should have

- either, a bachelor's degree in building engineering related discipline recognized by HKU SPACE & HKIE;
- or, a pass in Chartered Institute of Building (CIOB) Part II examination;

PLUS at least two years' relevant work experience in the construction industry.

Applicants who do not have Grade E or above in AS Level Use of English or equivalent may be invited to take an English entrance test or to attend an interview.

Assessment

Assessment arrangements for the programme will be module-dependent. Formal written examination will be held at the end of Trimester 1, Trimester 2 and Trimester 3 for the modules taken in that Trimester. Continuous assessments may include assignments, workshop reports, presentation, written test, laboratory reports (for the module BE66037 Geotechnical and Foundation Engineering) and group projects. In order to be eligible to take the examination, each student must meet the attendance requirement of at least 70% of the classes.

Programme Recognition

The Hong Kong Institute of Construction Managers (HKICM)

Postgraduate Diploma graduates who are 25 or above with at least 4 years' work experience in the construction field in the HKSAR will be eligible to apply for Corporate Membership of the Institute.

The Hong Kong Institution of Engineers (HKIE)

PgCert BE and PgDip BEM have been approved as the top up courses in meeting the academic requirements for Corporate Membership in the Building Discipline of the Institution.

Students can also enroll on any individual modules of the Postgraduate Certificate/ Postgraduate Diploma programmes and will be awarded a Statement of Achievement upon completion of a module. They may also provide the opportunity to transfer to the whole programme at a later stage and be granted some modular exemptions subject to the discretion of the Admissions Committee.

POSTGRADUATE CERTIFICATE IN BUILDING ENGINEERING

BE66036 Temporary Works Design

The module provides rules and requirements for the design, fabrication, and use of temporary works materials and their components. The interaction of the different parts of formwork and falsework systems and their stability at the various stages of the construction, which, coupled with an appraisal of the cost will also be explored.

BE66037 Geotechnical and Foundation Engineering

The module addresses on the determination of soil stratification and characteristics of soil required for the design of foundation. It integrates the experimental, theoretical, and design basics of geotechnical engineering with professional practice issues to work out appropriate foundation engineering solutions.

POSTGRADUATE DIPLOMA IN BUILDING ENGINEERING AND MANAGEMENT

E66040 Property Development and Economics

The module is centred on the economic theories and financial and investment institutions in which project development operates. In addition to economic and financial analysis, a wider perspective on the social and environmental problems is examined to understand the urban growth and functioning of the urban economy.

BE66041 Project Management

The module provides a profound understanding of the principles and techniques available for the project manager to manage a construction project in the context of body of knowledge of project management. The determination of appropriate procurement method and comprehension of contract management in the construction process are also highlighted.

BE46024 Construction Law

The module provides an underpinning study of the local legal system and land law prior to the examination of a broad spectrum of laws relating to the construction and real estate development process. It intends to develop an awareness of the legislative context of construction contracts and also relevant ordinances, commercial and company laws playing in the efficiency of the construction process from a practical perspective.

Enquiries

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