



Dr Sandy Tang (left) and Mr Edmond Wong are dedicated to training surveying and building engineering professionals.

鄧麗儀博士（左）及黃耀誠講師致力培育測量及建築工程專才。

Training Professionals for Surveying and Building Engineering Sectors

Hong Kong is a densely populated city with a constant stream of construction projects in progress. As one of the fastest growing sectors in Hong Kong, the local construction industry, however, will face a shortfall of 59,800 employees at undergraduate degree level by 2022 according to the “Report on Manpower Projection to 2022” released by the Labour and Welfare Bureau. The development of the Greater Bay Area and the Belt and Road Initiative will further accelerate the demand for professionals in surveying and building engineering in Hong Kong, the Chinese mainland and other parts of Asia.

Professionally-recognised Programmes

Since the 2017/18 academic year, the BSc (Hons) in Surveying and the BSc (Hons) in Building Engineering and Management have been transferred from the PolyU Department of Building and Real Estate to SPEED. The Surveying programme continues to obtain the professional recognition from the Hong Kong Institute of Construction Managers (HKICM), The Hong Kong Institute of Surveyors (HKIS) and the Royal Institution of Chartered Surveyors (RICS). As for the Building Engineering and Management programme, it has obtained the professional recognition from The Chartered Institute of Building (CIOB) and the Hong Kong Institute of Construction Managers (HKICM), with the expected continuation of recognition by The Hong Kong Institution of Engineers (HKIE).

“Graduates of the programme are highly sought after by employers from both public and private sectors, with attractive packages offered. The graduates’ competitiveness attracts many to enrol in the Surveying programme. Many working adults with years of work experience are enrolled in the part-time programmes to obtain a second or even third degree. This serves as a testament to the quality of our programmes,” said Dr Sandy Tang, Senior Lecturer and Programme Leader of BSc (Hons) in Surveying.

Diverse Curriculum to Train Professionals

“Far from a purely science-oriented field, the Surveying programme features a diverse curriculum. It covers four surveying disciplines to cater to students’ aspirations and interests. Surveyors are needed in different stages of construction, such as land planning, developing, selling, managing, investing and leasing of buildings. When land developers tender for government lands, surveyors help assess the land use and building cost. To attract more visitors, shopping malls also need surveyors to plan the marketing strategies,” said Dr Tang.

為測量及建築工程界培育專才

香港人口稠密，建築項目發展蓬勃，建造業成為本港增長最迅速的行業之一。然而，根據勞工及福利局發表的「2022年人力資源推算報告」，業界將面臨勞動力不足，至2022年欠缺59,800名持學位資歷人士填補相關空缺。大灣區和一帶一路的規劃將進一步帶動香港、中國內地以至整個亞洲對測量及建築工程人才的需求。

專業認可課程

自2017/18學年起，SPEED從理大建築及房地產學系接辦地產及建設測量學（榮譽）理學士課程和建築工程及管理學（榮譽）理學士課程，前者繼續獲得香港營造師學會、香港測量師學會及皇家特許測量師學會的專業認可；後者亦已獲得英國特許建造學會及香港營造師學會認可，並預期繼續取得香港工程師學會認可。

地產及建設測量學（榮譽）理學士課程統籌兼高級講師鄧麗儀博士說：「完成課程的畢業生廣受公營及私人機構的僱主青睞，待遇亦相當不俗。畢業生競爭能力高，自然吸引學子報讀課程。不少在職人士累積多年工作經驗後，決定以兼讀制模式考取人生第二甚至第三個學位，這足以證明課程達優質水平。」

多元化課程培育專才

鄧博士說：「地產及建設測量學課程不純粹以科學為導向，其課程內容很多元化，涵蓋四個範疇的測量學知識，以配合學生的志向及興趣。不同的建築程序均需要測量師參與，例如土地規劃、開發、銷售、管理、投資和租賃等。另外，土地發展商投標政府土地時，測量師會先評估土地使用及建築成本。為了吸引人流，商場亦需要測量師來制定營銷策略。」

“On the other hand, building engineering and management is a more specialised discipline. Having a solid grasp of math and science will give students an edge in studying for the programme. In a sense, building engineers are like concertmasters orchestrating the construction. Being essentially the project managers, they need to have a holistic view of the project and good interpersonal skills,” explained Mr Edmond Wong, Lecturer and Programme Leader of BSc (Hons) in Building Engineering and Management.

The two programmes are keeping abreast of the industry developments. For example, Building Information Modelling (BIM), which generates 3D digital building data to bridge communications between different fields, has become the industry standard. The Building Engineering and Management programme now offers BIM as a standalone elective subject.

Apart from theoretical knowledge, students also hone their professional skills via practical training. All full-time students are required to complete 176 hours of Work-integrated Education (WIE). In the past, they have taken internships at government departments and publicly-funded bodies, such as the Construction Industry Council, and private firms.

Learning outside the classroom, students of the Surveying programme even have the opportunity to go on a self-organised overseas study tour to learn about urban development. Dr Tang said, “Students are responsible for planning the entire trip. Last year, they chose to visit Japan to observe the earthquake resistant technology and the redevelopment project at Roppongi.” As for students of the Building Engineering and Management programme, Mr Wong said they are required to conduct site visits to learn how to solve problems in real construction sites.

Multitude of Career Opportunities

“Graduates have many opportunities in Hong Kong alone. Apart from building new infrastructures, urban renewal, building safety and maintenance are also areas to look into.” elaborated Mr Wong.

Dr Tang encouraged students to broaden their horizons and embrace the many opportunities from all around the world. One of our graduates was hired by a mainland developer to work on real estate projects in Japan and the UK. Both mainland and international firms have a preference for Hong Kong graduates because they possess a global outlook and knowledge of the international standard.”

建築工程及管理學（榮譽）理學士課程統籌兼講師黃耀誠先生說：「建築工程管理則是一門較專修的學科。精於數學及科學的同學，對修讀建築工程及管理學課程較有優勢。建築工程師就像樂隊指揮，既要全面掌握建築項目，亦要人際技巧良好，才能發揮項目經理的角色。」

兩項課程緊貼行業發展，與時並進。例如，數據建築資訊模型（BIM）已成為業界標準，模型輸出三維建築數據，方便不同界別傳輸資訊。有見及此，建築工程及管理學課程已增設 BIM 成為獨立選修科目。

除了汲取理論知識外，同學亦可參與實習，以提升專業技能。全日制學生均要完成 176 小時的「校企協作教育計劃」。過去，同學曾到私人機構、政府及公營部門例如建造業議會實習。

課堂學習之外，修讀地產及建設測量學課程的同學更有機會自組海外考察活動，探討當地城市發展。鄧博士說：「同學負責編排整個行程，去年便到了日本，了解防地震科技發展，以及六本木區重建計劃。」黃講師補充，建築工程及管理學同學會到建築地盤實地考察，學習實用的工作解難技巧。

廣闊的事業發展機會

黃講師續說：「單在香港，畢業生也有很多發展機會。除了新基建項目外，他們亦可在市區重建、樓宇安全及保養方面發展。」

鄧博士鼓勵同學拓闊視野，迎接世界各地的機遇：「我們有一位畢業生獲國內發展商聘用，負責日本及英國的項目。中國內地及國際企業均喜歡聘用香港畢業生，因為他們具備環球視野，並認識國際標準。」



The BSc (Hons) in Building Engineering and Management programme arranges a construction site visit to enhance students' understanding of construction practices.

建築工程及管理學（榮譽）理學士課程安排同學參觀建築工地，了解建築作業守則。



PolyU SPEED collaborates with The Hong Kong Institute of Surveyors to hold a workshop on "Project Cost Benefit Analysis - New Perspectives" for industry professionals.

PolyU SPEED 與香港測量師學會為業界專業人士合辦「Project Cost Benefit Analysis - New Perspectives」工作坊。