

Pearson BTEC Level 5 Higher National Diploma in Civil Engineering



Registration Number / Course Code: 252266 / 013P

Centre no. 75879

It is a matter of discretion for individual employers to recognize any qualifications to which this course may lead.

個別僱主可酌情決定是否承認本課程可令學員獲取的任何資格

英國國家高級文憑--土木工程

Pearson BTEC 簡介

英國愛德思 (Pearson) 國家職業學歷與學術考試機構，是英國規模最大的學歷與職業資格頒證機構之一。Pearson 由英國主要職業資格考試機構「商業與技術教育委員會 “BTEC” 」和倫敦大學考試與評估委員會 (ULEAS) 合併而成。Pearson 的所有課程都由英國教育與技能部 “DfEs” 和英國教學大綱與學歷管理委員會 “QCA” 共同監管。Pearson 跟政府機構、學術機構及企業緊密合作，Pearson BTEC HND 在全球獲 120 個國家的大學認可。

課程簡介

- ◆ 土木工程課程內容由英國愛德思國家職業學歷與學術考試機構(BTEC)提供，並結合本港實際工程界的需要，由香港設施工程學院(HKCE)主辦的晚間兼讀制課程。
- ◆ 此課程給予學員廣泛而全面的知識，為學生建立良好的學術基礎，學員可自行報讀英國或海外大學的學位課程。
- ◆ 以學生為主的互動式教學，讓學生通過完成與職業相關的課程，學以致用，注重應用操作、團隊合作、案例分析、實踐創新。除專業及關鍵技能外，重視職業通用技能的培訓。
- ◆ 摒棄傳統考試的學習評估模式，每學科以習作成績作為評核標準，令學員能輕鬆學習。

證書頒發

- ◆ 學員需在指定時間內成功完成指定 16 科，所有功課經 BTEC 審核合格，並及通過英文考試合格 (相等於 IELTS 5.5 或 CEFR 或 PTE 51 或相同資格; 或本校的校內英文試，將獲得由英國愛德思國家職業學歷與學術考試機構(BTEC)頒發國際認可英國國家高級文憑 (Higher National Diploma)。

課程認受性

- ◆ 成功取得 BTEC HND 之學員，可自行向香港學術及職業資歷評審局 (評審局)，取得本港認可的資格，申請者而需要符合評審局其他要求。
- ◆ Pearson BTEC HND 在全球獲 120 個國家的大學認可，本學院介紹或自行報讀海外大學。
- ◆ 成功取得 BTEC HND 之學員，可申請英國一些相關學會，成為副會員 (須符合相關要求)。
- ◆ 成功取得 BTEC HND 之學員，可申請屋宇署 T3 資格，唯須符合屋宇署相關要求。

申請 T3 適任技術人員資格要求

- 持有土木 / 結構 / 土力工程學、建築工藝學、建築測量學或建築學的高級證書或高級文憑；
需有相關 5 年的工作經驗 (資料來源: 屋宇署網頁)

https://www.bd.gov.hk/doc/tc/resources/codes-and-references/code-and-design-manuals/SS2009_c.pdf

入學條件

標準入學條件	非標準入學條件(需年滿 21 歲)
<ul style="list-style-type: none"> ◆ 中七畢業 (F.7); 或 ◆ 中學文憑試畢業 (DSE); 或 ◆ 持有基礎文憑 (OD/PD); 或 ◆ 持有英國國家高級證書/專業證書(HNC/HC); ◆ 英文要求 <ol style="list-style-type: none"> 1. IELTS 5.5 分或以上 or 2. HKDSE Level 3 or 3. HKCEE Level D or 4. A Level Grade E or 如不能符合以上英文要求，需要在申請畢業前完成本校舉辦的英文班並通過考試。 	<ul style="list-style-type: none"> ◆ 中五畢業並有最少 5 年有關工作經驗及面試; 或 ◆ 毅進課程畢業並有最少 3 年有關工作經驗及面試; 或 ◆ 有關 10 年工作經驗及面試 ◆ 英文要求 <ol style="list-style-type: none"> 1. IELTS 5.5 分或以上 or 2. HKDSE Level 3 or 3. HKCEE Level D or 4. A Level Grade E or 如不能符合以上英文要求，需要在申請畢業前完成本校舉辦的英文班並通過考試。

學費 (全期學費分 4-8 期繳交, 每期可選擇修讀 1-5 個單元)

- ◆ 基本學費 : 每單元 HK\$4800
- ◆ 優惠學費 : 請致電到學院查詢

其他費用

- ◆ 報名費 : HK\$500
- ◆ 筆記影印費 : 每科 HK\$300 (學生可自由選擇)
- ◆ BTEC 註冊費 : 三年註冊費 HK\$5,600
- ◆ 英語備試班及考試 : HK\$2,800
- ◆ 因個人原因需要將期票延期或退票，要收取行政費 HK\$300

申請豁免條款 (一經報名, 恕不接受任何豁免申請)

- ◆ 申請獲豁免科目必須與 BTEC 課程內容相吻合, 為確保豁免科目符合 BTEC 要求，學員需跟從指示提供相關的學術文件、成績、申請豁免科目的 Assignment，以供本學院審核並由 BTEC 最終審核。審核費每科 HK\$1,000 (成功與否均不設退還)。

授課詳情

- ◆ 授課語言 : 以粵語教授, 英文輔助, 英文講義
- ◆ 課程師資 : 講師為註冊工程師(HKIS、RICS、CEng and RPE);
或註冊設施經理或擁有碩士學歷及教育經驗; 或持有大學學位及相關工作經驗。
- ◆ 單元 : 16 單元
- ◆ 筆記 : 僅提供電子筆記
- ◆ 授課時間 : 7:00pm - 10:00pm
- ◆ 開課日期 : 每年的 3 月、6 月、9 月、12 月
- ◆ 截止報名 : 課程開課前兩星期 (詳情請向職員查詢)

課程內容 Course Content

P5E01 - Construction Design Project

Discuss the stages of a design process and the types of information required to communicate, share and manage the project process. Explain the different types of construction information developed through the course of a project. Produce design propositions that address project requirements defined through feasibility stages. Present a construction information package, highlighting the coordination of information between different project stakeholders to ensure accuracy.

P5E02 - Construction Technology

Explain the terminology used in construction technology; describe the different techniques used to construct a range of substructures and superstructures, including their function and design selection criteria. Discuss different methods of dealing with site conditions to support building and infrastructure construction. Illustrate the supply and distribution of a range of building services and how they are accommodated within the building.

P5E03 - Science & Materials

Review health and safety regulations and legislation associated with the storage, handling and use of materials on a construction site. Discuss the environmental and sustainability factors that inform the material choices for a given construction project. Present material choices for a given project using performance properties, experimental data, sustainability and environmental consideration. Evaluate the performance of a given project in respect of its human comfort requirements.

P5E04 - The Construction Environment

Explore the development of the construction industry through the roles and relationships of the professionals involved. Assess the impact of the construction industry; discuss the ways in which the construction industry ensures quality, timely completion and safety. Examine the routes to employment and progression within the construction industry.

P5E08 - Mathematics for Construction

Use analytical and computational methods to solve construction-related problems; investigate applications of statistical techniques to interpret, organize and present data by using appropriate computer software packages. Illustrate the wide-ranging uses of calculus within different construction disciplines by solving problems of differential and integral calculus. Use mathematical methods to solve vector analysis, arithmetic progression and dimensional analysis problems.

P5E12 - Tender & Procurement

Define what constitutes a tender and the information required for this process; explain the procedures and contractual arrangements for tendering. Analyse the factors that affect the selection of construction procurement methods; prepare tender documentation for a given project.

P5E17 - Civil Engineering Technology

Explain the methods and techniques used in civil engineering for earthworks and substructures; discuss the civil engineering technologies associated with road and bridge construction. Evaluate the way a given civil engineering project addresses issues related to the environment, structural requirements, economics and quality. Present a design proposal for a new infrastructure project.

P5E19 - Principles of Structural Design

Calculate bending moments and shear forces for simply supported steel and concrete beams; determine deflection for different types of beams and loading conditions. Calculate the axial load carrying capacity of steel and reinforced concrete columns; explore design methods for steel, reinforced concrete beams and columns.

P5E28 - Group Project (Pearson-set)

Assess individual and group skills to allocate roles within a collaborative team; plan a construction project, based on the Pearson-set theme, in collaboration with others to ensure good practice in resource management, staffing and project scheduling. Prepare tender documentation, undertaking work appropriate to a defined role within a team; evaluate own work, and the work of others, in a collaborative team.

P5E29 - Contracts & Management

Discuss the different stakeholders and contractual relationships that may develop during a construction project; explain the criteria that inform the selection of a construction contract. Examine different forms of standard construction contract and their application to built environment projects. Prepare an appropriate form of contract for a selected project, specifying the terms and conditions.

P5E31 - Advanced Structural Design

Explain strategies to resist deflection due to wind loadings on fixed structures; determine bending, shear and deflection for complex support conditions. Design complex columns and piled foundations based on calculation; explore the design of tensile structures.

P5E33 - Construction Technology for Complex Buildings Projects

Discuss the characteristics of complex construction projects and their challenges; define strategy for the preparation, materials and substructures for a given large-scale construction project. Develop an information package for the superstructure, building services and fire safety of a given large-scale construction project; propose solutions that meet the requirements for safe demolition and disposal of materials for a large-scale construction project.

P5E34 - Further Mathematics for Construction

Apply instances of number theory in practical construction situations; solve systems of linear equations relevant to construction applications using matrix methods. Approximate solutions of contextualized examples with graphical and numerical methods; review models of construction systems using ordinary differential equations.

P5E36 - Value Engineering & Cost Control

Explain the principles of value engineering in construction projects; apply value engineering principles to a construction project. Describe the principles of cost control in construction projects; demonstrate the application cost analysis for a given construction project.

P5E39 - Personal Professional Development

Assess personal learning needs and opportunities in the context of employment. Plan and manage own personal learning journey, through consultation with employer and/or tutor/instructor. Record personal progress and the feedback of others; responding as appropriate to own future development. Evaluate own learning, based on personal experience and comments from others, in order to plan for the future.

P5E41 - Highway Engineering

The quick and flexible means of transport afforded to us by motor vehicles has transformed modern life. This ease of mobility is made possible by the construction and maintenance of our road system. The increased volume of traffic and the need to have an efficient road network to transport resources requires us to become more proactive in developing innovative highway solutions. In recent years, we have seen the introduction of 'smart motorways' and 'guided busways', however we require more creative and resourceful solutions for the future.

報名時需提供:

- 已填妥的報名表, 報名費 HK\$500, 及首期學費
- 身份證
- 履歷表
- 畢業證書
- 工作經驗證明

報名及付款方法

☐ 報名時請備EPS, 現金或劃線支票(信用咭暫不接受)

☐ 如以劃線支票, 請在支票上註明收款人

TD Professional Education Group LTD.”

If pay by crossed cheque, please specify the payee to be

TD Professional Education Group LTD.”

郵寄地址:香港設施工程學院, **九龍旺角廣東道982號, 嘉富商業中心15樓**

☐ 轉數: 將學費直接存入銀行戶口, 連同銀行收據及填妥之報名表格WhatsApp至: 65286900。

尖端教育集團有限公司: 東亞銀行 **514-40-55818-4**

尖端教育集團有限公司: 滙豐銀行 **124-422288-001**

轉數快認識碼: **102669215**

Or deposit the payment to our Bank A/C:

TD Professional Education Group LTD: East Asia Bank A/C: 514-40-55818-4

TD Professional Education Group LTD: HSBC: 124-422288-001

and WhatsApp us the bank receipt accompany your application form at 65286900.

FPS Code: 102669215

☐ 或連同報名表格及學費親臨本學院繳交。

Or submit the application form with the course fee in person

☐ 或支付寶:

- 首先開啟支付寶『掃一掃』
- 再掃描二維碼及輸入金額
- 交易完成



注意事項

1. 香港設施工程學院已實施個人資料 (私隱) 政策, 有關資料單張可於報名處索閱, 或閣下可與本學院個人資料管理主任查詢。
2. 香港設施工程學院保留在任何情況下及以任何原因拒絕任何入學申請的權利。申請者繳付學費後, 仍須符合入學的所有條件, 其申請方可獲得接納。
3. 香港設施工程學院保留在任何情況下更改課程內容、授課地點、日期及時間的權利。
4. 如申請退學, 學生需於本課程開始前最少5個工作日以書面通知退學, 否則已繳學費概不退還。申請者申請退還學費需繳交手續費HK\$300。

查詢熱線 : 3165 8069
電郵地址 : enquiry@tdpedu.org;

WhatsApp : 65286900
學院網址 : <http://www.tdpedu.org>