香港大學土木工程系
Department of Civil Engineering,
The University of Hong Kong

UTILITY TRAINING INSTITUTE (UTI)
a trade name of UtilityINFO (Training) Ltd. 管綫學院

應用學習課程 2008-10 學年試點計劃
Applied Learning Courses 2008-10 Cohort of Piloting

管綫專業技術及應用
Utility Profession & Applications
【工程・技術・應用】

支持機構
Supporting Organizations

課程顧問委員會主席
何鍾泰議員、博士、工程師、太平紳士
Chairman of the Course Advisory Committee
Hon Ir Dr. Raymond, C. T. Ho, SBS, JP

香港理工大學測繪及地理資訊學系
Department of Land Surveying and Geo-Informatics,
Hong Kong Polytechnic University

HKIUS 香港管綫專業學會
Hong Kong Institute of Utility Specialists
香港管綫專業學會
Hong Kong Institute of Utility Specialists

HKURC
香港管綫管理研究中心
Hong Kong Utility Research Centre

管綫專業技術及應用

課程重點

通過實驗、工具儀器操作、團隊合作及實地參觀等形式，向學員灌輸專業測量技術及管綫管理原理等基礎知識，藉以提升測量技術、溝通技巧、管綫管理知識的水平，從而改善市民的生活質素及協助保護環境

課程目標

- 培育中學生成為未來工程師或管綫管理行業之專業人士
- 讓年青人全面了解管綫管理的運作，為未來就業奠定良好基礎
- 提高年青人的工程安全知識及團隊合作
- 透過教育致力改善社會生活質素

入讀條件

- 於2008/09學年，升讀中四的應屆中三同學
- 計劃日後攻讀有關工程、測量或管綫管理專上課程者，更可獲優先取錄

開課日期

- 2008年9月

上課地點安排

模式一：於各區辦事處舉行，包括屯門／元朗／天水圍、上水／粉嶺、馬鞍山／沙田／大埔、旺角、觀塘、北角、管綫學院葵涌訓練中心、香港薄扶林道香港大學土木工程系課室及訓練場

模式二：可與各學校商討，安排於個別學校上課（如學校能提供場地及教學支援，每位學生最多可獲學費減免$900）

課程架構

課程方向	課程名稱	小時
基礎知識	**管綫管理簡介及現況**	9
	勝任能力及溝通	6
	管綫專業技術及管理的基礎法則 包括管道狀況測評及探測、滲漏檢測及監控、管綫位置調查及製圖、非開挖式管綫修補技術、數據及管綫管理、地形構造基本測量及地理資訊系統	24
	工作安全知識須知 包括基本工場安全知識、高空工作、密閉空間安全及斜坡工作安全等	6
專業技術	**管綫工程安全及個案研究**	15
	地下管綫測量的儀器應用(第一至五章) ・特定管道狀況測評(包括電流法、沙井檢視、閉路電視及視像等)	21
	・管綫位置偵測及製圖	21
	・滲漏檢測及監控	12
	・透過地理資訊系統運作的數據及管綫管理	15
	・斜坡內隱藏水管的安全預防偵測	6
實習	**團隊個案研究 (包括公司探訪)**	45
	總時數	**180**

註：透過形式二上課，學校可向「香港管綫管理研究中心」申請資助

升學途徑及專業資格

成功完成課程並取得合格者，將有助日後升讀有關工程、測量及管綫管理類別之課程，並有資格取得「香港管綫專業學會」附屬會員資格，得與其他管綫管理專業人士共同提昇行業地位，現時該會有逾250名會員。

授課語言

中文 (輔以英文專用名詞)

全期學費

HK$10,000 (註)

查詢

楊德忠 博士、工程師 (香港大學)
電話：2859 8018

黃敬 博士、工程師 (管綫學院)
電話：2690 3899

課程招生處：管綫學院 (聯絡人：朱小姐)
電話：2610 5612
傳真：2618 4500

電郵：info@uti.hk
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www.uti.hk
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Utility Profession & Applications

Course Objectives

- Equip secondary students to be professionals in the future for engineering, surveying and utility practitioners
- Provide students with fundamental knowledge about the utility industry , skills and utility management
- Increase the safety awareness and collaboration of the teenagers; and
- Enhance the social living standard through education.

Date of Commencement

- September 2008

Venue

- Mode 1: General courses will be conducted at centres in different districts, including Tuen Mun/ Yuen Long/Tin Shui Wai, Sheung Shui/ Fanling, Ma On Shan/ Shatin / Taipo, Mongkok, Kwun Tong, North Point, Utility Training Institute (UTI) - Kwai Chung Centre, Classroom at Department of Civil Engineering in the University of Hong Kong.
- Mode 2: Can be arranged in individual schools (If schools can provide venue and teaching assistance, the maximum fee deduction per student is $900)

Further Study Path and Professional Qualification

It is beneficial for further studies in relation to engineering, surveying and utility management. Meanwhile, the graduates are eligible to be Affiliate members of Hong Kong Institute of Utility Specialists (HKIUS) and work closely with utility practitioners. HKIUS has over 250 members so far.

Course Structure

Direction	Course name	Hour
Foundational knowledge	**Introduction and Current Situation of Utility Management**	9
	Competence and Communications	6
	Foundation Principles of Utility profession, skills and Management - Include Pipe Condition Surveys, Water Leakage Detection & Control, Utility Location Surveys and Mapping, Pipe rehabilitation without excavation, Data and Utility Management, Basic, Topographical Survey and Basic GIS (Geography Information System)	24
	Safety at works - Include Basic Work Safety, Work at Height, Confined Space Working, Safety Measures for Working at Slope	6
Technical skills	**Utility surveying and engineering Safety and Case Study**	15
	Underground utility Survey and applications of equipment (practical) Chapter 1-5	
	• Selected Pipe Condition Surveys (Stray Current, MHICS, CCTV, Optical and others)	21
	• Utility Location Survey & Mapping	21
	• Water Leakage Detection and Control	12
	• Data and Utility Management using GIS	15
	• Buried Water Carrying Services Affecting Safety of Slopes	6
Practice	**Utility Surveying Project (with company and site visit)**	45
	Total hours	180

Note: Schools are eligible to apply funding from Hong Kong Utility Research Centre through Mode 2 format.

Essences of the Course

- Provides students with utility management and professional surveying insight through equipment practicing, group project and site visit which helps enhance technology, communications and management skills, eventually helps improve the living standard and protect the environment.

Requirements

- Current Secondary 3 students who will progress to Secondary 4 in school year 2008-09
- Those who plan to study engineering surveying and utility management related tertiary programmes will be given priority.

Medium of Instruction

Chinese (supplemented with English terminologies)

Tuition fee

HK$10,000 (Note)

Enquiry-

Ir Dr. Albert T. Yeung (HKU)
Tel: 2859-8018
Ir. Dr. King Wong (UTI)
Tel: 2690-3899

Enrolment and Liaison:
UTI office
Contact person: Miss Chu
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Website:
www.uti.hk
www.hkurc.org.hk
www.hkius.org.hk

進修機制
Articulation Path

升學途徑
Further Studies

- 將在香港理工大學開辦的管綫測量學位課程 (2010年)
  Utility Survey Bachelor Degree course to be offered in Hong Kong Polytechnic University (Year of 2010)
- 香港專業教育學院電機工程系高級文憑或文憑課程
  Higher Diploma or Diploma programme offered by the Hong Kong Institute of Vocational Education (Haking Wong)

就業前景
Career Development

- 工程師
  Engineers
- 測量師
  Surveyors
- 專業管綫從業員
  Utility Management practitioners
- 工程安全顧問
  Safety consultants
- 建造業相關職位
  Construction-related positions

3-5年經驗
3-5 year experiences

專業評審
Professional Assessment

成為香港管綫專業學會正式會員*
To become Members of HKIUS*

進修
Articulation

現有香港中學會考科目
Existing HKCEE subjects

- 地理：地質學、岩土結構、下水之形成
  Geography: Geology, Land structure, underground water formation
- 物理：超聲波原理
  Physics: Ultrasonic

新高中課程課程科目
New Senior Secondary Curriculum

- 物理科：聲波運動、放射活動
  Physics: Wave motion, Radioactivity
- 地理科：地貌系統
  Geography: Landform system

管綫專業技術及應用
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*或其他專業團體如工程、測量或建築
Or other professional bodies for engineering, surveying and architectural services