



持續教育學院
School of Continuing Studies
能源審計師專業課程
EA 001 Energy Auditor

本課程已納入
教育局
持續進修發展計劃

Course Introduction 課程簡介

- This course is divided into 2 parts, step by step to let students understand the energy management and auditing then apply in practice.
- Student can gain 30 CPD hours after completing this course.
- Student can register as BTEC student in order to gain the Level 5 Professional Awards
- The facts proved that, students can make use of our course content, in order to save at least HK\$1,000,000 - \$2,000,000 energy costs in public or private sectors as fast as only 4 weeks.
- Students can improve their knowledge through this unique course. It is especially suitable for energy engineers and managers who are working in government or private organizations. Further, this course is also accredited by the Institution of Facilities Engineers (IFE).

Learning Objectives 教學目標

Certified Energy Auditor (Part I) – Facilities Energy Management

Give introduction to general energy management strategy to learners

Focus on energy conservation in HVAC

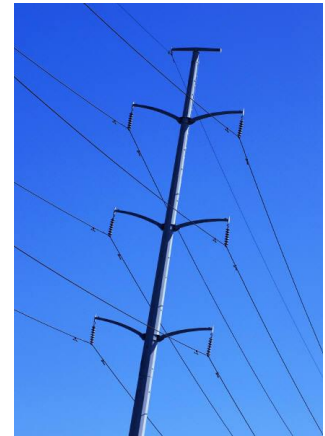
Provide energy saving techniques for various large energy consumers

Certified Energy Auditor (Part II) – Energy Auditing

Give overview on energy auditing

Introduce the energy auditing techniques

Apply energy auditing methods in practice



Course Outline 課程大綱

Certified Energy Auditor (Part I) – Facilities Energy Management

Understand the energy management strategic plan and role of energy manager.

Understand and apply the energy saving practices in air conditioning design.

Understand and be able to apply energy load calculations and life cycle costing

Understand the main energy loads for hotels, universities, shopping centres and large consumption with cases.

Certified Energy Auditor (Part II) – Energy Auditing

Understand the objective of auditing and the principal methods.

Understand and apply the data audit and preliminary survey.

Understand and apply the detail audit and data analysis.

Understand and apply energy monitoring and targeting with cases.

Certified Energy Auditor (Part I) – Facilities Energy Management

- **Energy Management Strategy:** Energy Saving strategy, Energy Management, Concept and methods of energy saving
- **Role of energy managers:** Energy saving attitudes, purpose and directions; Safety and training; Priority and tactics
- **Energy saving examples for hotels:** Hotels: Energy saving actions, methods, applications and case studies
- **Energy conservation for A/C design:** Cooling values; Direction and place; Buildings and energy saving; Conception
- **Energy conservation for A/C plant & Equipment:** Most updated energy saving methods; Heat exchanger; Piped devices, VAV
- **Energy Saving examples for schools and universities:** Universities: Energy saving actions, methods, applications and case studies
- **Estimation of cooling loads:** Heat rate; Reasons for estimation of cooling loads; Evaluation
- **Energy auditing techniques:** Expectation and measurement of Energy audits; Main energy cost

- **Energy saving examples for Shopping Centre:** Shopping Centre: Energy saving actions, methods, applications and case studies
- **Energy monitoring & Targeting:** Monitoring procedure, instrument, data analysis
- **Cost benefits analysis:** Saving cost methods; Life cycling
- **Energy saving examples for hospitals:** Hospitals: Energy saving actions, methods, applications and case studies

Certified Energy Auditor (Part II) – Energy Auditing

- **Energy Audit and Methods:** Concept & Methods & Introduction to Energy Audit
- **Audit Methods and Procedure:** Audit; Survey; Monitoring Methods
- **Audit Quality Control:** Financial; Execution & Environmental Benefits
- **Audit Action (I):** Data Collection for Electricity; Oil; Gas; Water
- **Audit Action (II):** Prelim Survey; Site Walk Planning; Various Approaches
- **Audit Action (III):** Details Auditing; Technical Approaches; Test & Inspection
- **Audit Action (IV):** Data Analysis; Pie Charts; Bar Charts; Shankey Diagrams; Linear Regression
- **Basic Energy Saving:** Methods; Procedure; Approach
- **Advanced Energy Management:** Responsibility; Procedure; Operation; Maintenance
- **Energy Monitoring & Targeting:** Saving calculation; Data Analysis & Interpretation
- **Successful Energy Implementation Methods:** Choice of survey; Recommendation; Monitoring Result
- **Energy audits actual case studies:** Discuss Different Practical Cases

Target Audience 對象

The course is suitable for: Any field of Engineers, Facilities Managers, and Consultants, etc.

It is especially suitable for energy engineers and managers who are working in the government or private organizations.

此課程適合：任何範疇的工程師、設施經理及顧問，等等．．．

特別適合任職於私人機構或政府部門的能源工程師及經理。

Instructor 導師簡介 Mr. Wallace Chan K K

陳其佳 先生

BEng, MBA, MSc, FHKICE, FHKICongE, MIEE

Medium of Instruction 授課語言 Lecture in Cantonese / Materials in English

中文 / 英文

Venue 上課地點 Alameda Dr. Carlos D' Assumpção 335-341, Hotline Centre, 10/F, Macau

澳門新口岸宋玉生廣場 335-341 號獲多利中心 10 樓

Course date & time 上課日期

14 Sept ~ 5 Oct, 2013	Sat	10:00 to 18:30	課程編號：1304300585	(Total hrs: 30)
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Tuition Fee 課程費用 MOP 6,000

Class Size 收生名額 12 people

All fees are non-refundable and non-transferable. (The school has full right to withdraw any course anytime).

Therefore, student is advised to consider carefully about the course time and personal situations before application.

所有費用一經繳交，恕不退還或轉讓（本院取消開辦該課程除外）。因此，報讀者於報名前，請考慮清楚上課時間及視乎個人具體情況而決定報讀與否。

Enquiries 查詢 Tel: 8796 1999 / 8796 1998 Email: scs@must.edu.mo

Website: <http://www.must.edu.mo/scs-tw/admission/diploma-certificate-programs/news>

The School of Continuing Studies develops life-long learning opportunities. Should you wish to receive information on our programs / courses, please send us an email (to scs@must.edu.mo) stating your email address in your email and "Join the mailing list" in the Subject line.

持續教育學院致力開拓終身學習機會，如欲收到本學院之課程資料，可發電郵至 scs@must.edu.mo，並提供閣下之電郵地址，標題主旨為“加入通知群組”。

We also offer in-house training for corporations/Government Departments/schools, tailor-made with respect to your choices of topics, time, place, and group of attendees. Please contact us for more information.

我們亦為機構/政府部門/學校等提供內部培訓，按各機構不同之要求(主題/時間/地點/對象)而訂定培訓內容。請與我們聯絡。