香港公開大學
THE OPEN UNIVERSITY OF HONG KONG
政府創辦・財政獨立 Government established・Financially independent

Development of Professional Integrity in the Testing and Certification Industry

專業誠信在檢測和認證業的發展

Dr. Tony C. C. LEE 李至冲 博士
Assistant Professor (Testing and Certification)
Tel: 3120 2680; Email: cclee@ouhk.edu.hk
http://tc.ouhk.edu.hk

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Core Element in Testing and Certification Programmes

- MSc in Testing and Certification (OUHK)
  - Professional Practice and Code of Ethics for Testing and Certification Practitioners
- BSc (Hons) in Testing and Certification (OUHK)
  - Professional Practice and Ethics
- BSc (Hons) in Testing Science (Food/Environmental Protection) (OUHK)
  - Professional Practice and Ethics
- Higher Diploma in Testing and Certification (VTC)
  - Ethics and Sustainability in Testing and Certification

Core Element in Testing and Certification Programmes

- To win the confidence of the public, employers, and colleagues
  - require ethics / integrity
- Is it ethical to accept commissions from customers for a “good” testing report?
- Is it ethical to fix the price of testing, inspection and certification services produced by your company with competitors?

Codes of Ethics

- Examples:
  - Ethics in Practice - A Practical Guide for Professional Engineers by the Hong Kong Institution of Engineers (HKIE) and the Independent Commission Against Corruption (ICAC)
  - Corruption Prevention Guide for Testing and Certification Industry – ICAC
  - HKAS Supplementary Criteria No. 6 - Code of Conduct by the Hong Kong Accreditation Service (HKAS)
  - Accreditation Board of Engineering and Technology (ABET)
  - Institute of Electrical and Electronics Engineers (IEEE)
  - National Society of Professional Engineers (NSPE)

Codes of Ethics

- Providing statements to guide scientists or engineers in practicing scientific processes with consideration for ethical issues
- Don’t immediately resolve ethical issues for scientists / engineers
- Case by case study
  - Analysis is important

Motivation

- Ask yourself
  - How to develop professional integrity in tertiary education?
  - Baby – feed and eat?
    - No learning from mistakes
  - Experiment – issue a fake report?
    - Illegal
  - Outcome – the effect
    - Use your brain!!
    - Independent analysis!!

Outcomes

- Testing, Inspection and Certification (TIC) practitioners
  - Professional career
  - Doctors, Lawyers, Accountants, Engineers, …
- Affecting the World

Environmental Protection

- Pollution
  - Water, air, waste disposal
  - Global warming
  - Sustainable development
  - What a scientific professional can do?
    - Redesign testing methods or processes to improve efficiency of material and energy use and make recycling easier
    - Rethink how TIC services meet human wants more efficiently
    - Recycle materials from discarded solutions and specimens, reprocess and use to manufacture new products
    - Remanufacture discarded specimens, disassemble, clean and reassemble into rebuilt products

Consumer Protection

- Electrical safety
  - Electric shock, fire
- Food safety
  - genetic engineering, pesticide residues
- Product liability
  - Relates to issues of negligence in the design and manufacture of products
  - Test products prior sale

Occupational Safety and Health

- A responsibility of all scientific professionals
- Not only within your company
- Also for those outside the organization
  - Lab fire or even explosion

Intellectual Property

- Your company's or customers'
  - Copyright
  - Patent
  - Registered Design (jewellery, toys, mobile phone, textiles, watches
  - Layout-design (topography) of integrated circuits
  - Plant varieties protection (Cap 490)
- Release of such information is illegal

Others

- Quality management
- Animal Equality
- …
- Balance
  - Working up
    - Explain to your boss
  - Working down
    - Explain to your colleagues
  - Outside the company
    - Explain to your customers

History of TIC Industry

- Brief the development of TIC industry
  - Appreciate its role in Hong Kong
  - Entrepot
  - Manufacturing centre
  - Tertiary industry
    - Services including Testing, Inspection and Certification

Future of TIC Industry

- Establishment of Innovation and Technology Bureau
  - Innovation and Technology Commission
  - Office of the Government Chief Information Officer
- Belt and Road
- TIC students should think about (but not limited to) the above issues

Think and Analyse

- Presentation or debate among students, for example:
  - Development of Biotech and Nanotech
  - Development of Nuclear Energy
  - Development of Internet Regulation
  - Development of Regulation on the Complementary Health Products
  - Development of Environmental Levy System in Hong Kong
  - Development of Government Intervention
  - Development of Using Country Park in Hong Kong for Economic Activities
  - Development of Desalination Plant in Hong Kong

Think and Analyse

- Professional seminars from various professional bodies:
  - ICAC
  - IET Hong Kong
  - HKIE
  - HKTIC
  - …
- Analysis
  - QF level 5 or above

* Thank You *

Enquiry:

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