

Subject Description Form

Subject Code	ABCT4632
Subject Title	Inspection and Certification
Credit Value	3
Level	4
Pre-requisite	Metrology and Calibration
Objectives	This subject aims at providing students with comprehensive knowledge of the general criteria for the operation of certification bodies and inspection bodies in conformity with corresponding international standards.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: <ul style="list-style-type: none"> a. recognize the roles of certification and inspection, and the requirements for bodies providing certification and inspection; b. appreciate the role of testing and calibration in certification and inspection; c. develop teamwork and communication skills.
Subject Synopsis/ Indicative Syllabus	<p><u>Overview of Certification and Inspection</u></p> <ul style="list-style-type: none"> • Roles of certification and inspection • Ethical issues • General and management requirements <p><u>Introduction to International Standards for Certification Bodies</u></p> <ul style="list-style-type: none"> • ISO/IEC 17021 for bodies providing audit and certification of management systems • ISO/IEC 17065 for bodies certifying products, processes and services • ISO/IEC 17024 for bodies operating certification of persons <p><u>Introduction to International Standard for Inspection Bodies</u></p> <ul style="list-style-type: none"> • ISO/IEC 17020 for bodies performing inspection <p><u>Highlights of Requirements</u></p> <ul style="list-style-type: none"> • Role of testing and calibration in certification and inspection <p><u>Accreditation of Certification Bodies and Inspection Bodies</u></p> <ul style="list-style-type: none"> • IAF, HKCAS, HKIAS • Accreditation process
Teaching/Learning Methodology	<p>Lectures will provide students with the basis for operating a general testing laboratory. Experience sharing and case study sessions will be conducted by experts in the respective fields and used to illustrate the specific requirements and operation of certification and inspection bodies. Thereafter students are required to write reflection reports.</p> <p>Tutorials are designed to provide the forum for group discussion and problem based learning on the subject materials.</p> <p>Students will also be required to work on group projects on selected requirements of the international standards.</p>

Assessment Methods in Alignment with Intended Learning Outcomes	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)				
			a	b	c		
	1. Reflection reports	30	✓	✓	✓		
	2. Group project presentation	30	✓	✓	✓		
	3. Examination	40	✓	✓	✓		
Total	100 %						
<p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>Reflection reports and written examination are used to assess the understanding of the basis and requirements of bodies providing certification and inspection while group project presentation will assess all outcomes.</p>							
Student Study Effort Expected	Class contact:						
	▪ Lecture/experience sharing and case study sessions		30 Hrs.				
	▪ Tutorial		9 Hrs.				
	Other student study effort:						
	▪ Reports/group project presentation		25 Hrs.				
	▪ Self-study		40 Hrs.				
	Total student study effort		104 Hrs.				
Reading List and References	<ul style="list-style-type: none"> • ISO/IEC 17021:2015 “Conformity assessment — Requirements for bodies providing audit and certification of management systems” • ISO/IEC 17065:2012 “Conformity assessment — Requirements for bodies certifying products, processes and services” • ISO/IEC 17024:2012 “Conformity assessment — Requirements for bodies operating certification of persons” • ISO/IEC 17020:2012 “Conformity assessment — Requirements for the operation of various types of bodies performing inspection” • HKAS Supplementary Criteria No. 6 “Code of Conduct”, HKAS SC-06, http://www.itc.gov.hk/en/quality/hkas/doc/SupplementaryCriteria/HKAS_SC-06.pdf • HKCAS Supplementary Criteria No. 11 “HKAS Policy on Product and Management System Certification Schemes”, HKCSA SC-11, http://www.itc.gov.hk/en/quality/hkas/doc/SupplementaryCriteria/HKCAS_SC-11.pdf • HKIAS Supplementary Criteria for various types of inspection, HKIAS SC-01 to SC-04, from the following link: http://www.itc.gov.hk/en/quality/hkas/doc/common/publication/hkias_pub_en.pdf 						