

Subject Description Form

Subject Code	ABCT5034
Subject Title	Quality Assurance for Greenhouse Gases (GHGs) Statements and Management Principles for Methodologies on Climate Actions
Credit Value	3
Level	5
Pre-requisite/ Co-requisite/ Exclusion	Nil
Objectives	<p>This subject aims at providing students with competence to assess, validate and verify statements on GHG to assure their quality, reliability, relevance, accuracy, reasonableness, and validity. The subject provides students with knowledge of the accreditation requirements for bodies performing validation and verification of GHG statements. It also aims to enable students to apply energy management system and environmental management system in methodologies for climate action.</p> <p>Another aim of this subject is to equip students with the skillset in establishing processes to develop, revise and manage methodologies on climate actions that support sustainability by mitigation of GHG.</p>
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ul style="list-style-type: none"> (a) Appreciate international schemes on promoting carbon emission reduction and carbon credit trading (b) Apply the specification and the guidance for verification and validation of GHG statements (c) Interpret the competence criteria for GHG validation and verification bodies (d) Adopt the processes to develop, revise and manage methodologies on climate actions that support sustainability by mitigation of GHG to achieve carbon neutrality <p>Adopt energy management system and environmental management system to support climate action methodology</p>

<p>Subject Synopsis/ Indicative Syllabus</p>	<p>Topics to be included in this course:</p> <ul style="list-style-type: none"> (a) Fundamental concepts and principles of quality management system (b) Requirements for verifying GHG statements relating to GHG inventories, GHG projects and carbon footprints of products (c) Principles and requirements for bodies performing validation and verification of environmental information statements including GHG statements, carbon footprints of products, environmental information for sustainability reporting, environmental information related to “green bond”, “climate finance” and other financial instruments, etc (d) Competence requirements for GHG validation teams and verification teams (e) Competence requirements of GHG validation and verification bodies (f) International scheme on promoting carbon emission reduction – Science Based Target initiative and Climate Disclosure Project (g) Principles for establishing approaches and processes to identify, assess, revise methodologies on climate actions to address climate change including adaptation and mitigation (h) Ways to achieve carbon neutral and carbon trading market overview (i) International ESG reporting requirements - Global Reporting Initiative and International Sustainability Standards Board
<p>Teaching/Learning Methodology</p>	<p>Interactive lectures and tutorials with discussion in class and illustration of real cases will be used. This approach emphasises student-centered learning.</p> <p>Lectures supplemented with reading will be used to introduce the key concepts of the topics. Homework or assignments would be given to enhance students’ learning. Students should complete the required readings before each class. Students should be prepared for briefing or discussing the guided reading in the class. Supplementary readings would be recommended to provide additional background and depth on specific areas of focus.</p> <p>Students will be engaged in experiential learning by working on assignments consisting of technical analysis projects. Students are</p>

	<p>expected to have basic experience using Microsoft Excel and basic quantitative skills. However, full Excel proficiency is not required.</p> <p>Guest speakers would be invited to give lectures on specific issues relating to greenhouse. Students would gain better understanding on how the knowledge and skills be applied for addressing real-life carbon accounting scenarios.</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	d	e		
	1. Written examination	30%	√	√	√	√	√		
	2. Continuous assessment	70%	√	√	√	√	√		
	Total	100%							
Student Study Effort Expected	<p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>All assessment methods are used to assess the students' understanding of the subject materials, while group project is also used to assess teamwork, presentation and communication skills.</p>								
	Class contact:								
	<ul style="list-style-type: none"> ▪ Lectures 							36 Hrs.	
	<ul style="list-style-type: none"> ▪ Tutorials 							3 Hrs.	
	Other student study effort:								
	<ul style="list-style-type: none"> ▪ Self-study 							60 Hrs.	
<ul style="list-style-type: none"> ▪ 									

	<ul style="list-style-type: none"> ▪ Homework assignment 	60 Hrs.
	Total student study effort	120 Hrs.
Reading List and References	<ul style="list-style-type: none"> • ISO 9000, <i>Quality management systems – Fundamentals and vocabulary</i> • ISO 9001, <i>Quality management systems - Requirements</i> ISO 50001, <i>Energy management systems – Requirements with guidance for use</i> • ISO 14001, <i>Environmental management systems – Requirements with guidance for use</i> • ISO 14064-3, <i>Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions</i> • ISO 14065, <i>Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition</i> • ISO 14066, <i>Greenhouse gases – Competence requirements for greenhouse gas validation teams and verification teams</i> • ISO 14080, <i>Greenhouse gas management and related activities – Framework and principles for methodologies on climate actions</i> • <i>Science Based Target initiative</i> • <i>IFRS S2 Climate-related Disclosures</i> • <i>Global Reporting Initiative</i> 	