

LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

ISO 14064-2 — GHG Quantification for Projects

ISO Certification Programme



LAPT — London Academy of Professional Training

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Reference ENV-CCH-14064-2 • ISO Environmental Sustainability

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AT A GLANCE

REFERENCE	ENV-CCH-14064-2
AWARD	Certificate
ASSESSMENT	430 marks — 258 to pass (60%)
PREREQUISITES	None
VALIDITY	Lifetime
AWARDING BODY	LAPT — London Academy of Professional Training

CURRICULUM

1

Case Studies in GHG Quantification

5 chapters · 30 classes 85 marks

• 1 Understanding GHG Quantification Principles in Project Contexts

— 6 classes

› 1.1 Define GHG Quantification Principles in a Project Context

› 1.2 Identify Key Components of GHG Quantification Frameworks

› 1.3 Explore Methodologies for GHG Emission Calculations

› 1.4 Analyze Case Studies on GHG Quantification Applications

› 1.5 Evaluate Challenges in GHG Quantification for Projects

› 1.6 Develop a GHG Quantification Plan for a Sample Project

• 2 Frameworks and Standards for GHG Quantification

— 6 classes

› 2.1 Identify Key Frameworks for GHG Quantification

› 2.2 Analyze ISO Standards Relevant to GHG Management

› 2.3 Compare International GHG Protocols and ISO Standards

› 2.4 Explore the Role of Third-Party Verification in GHG Projects

› 2.5 Evaluate Case Studies of Successful GHG Quantification Initiatives

› 2.6 Develop a GHG Quantification Plan Based on Established Frameworks

• 3 Methodologies for GHG Emission Calculations

— 6 classes

› 3.1 Identify Key Methodologies for GHG Emission Calculations

› 3.2 Analyze Factors Influencing GHG Emission Quantification

› 3.3 Compare Different GHG Calculation Approaches

› 3.4 Apply GHG Emission Reduction Methodologies to Case Studies

› 3.5 Evaluate the Effectiveness of Selected Calculation Methodologies

› 3.6 Create a GHG Quantification Plan Using Chosen Methodologies

• 4 Case Studies: Successful GHG Projects and Lessons Learned

— 6 classes

› 4.1 Analyze Successful GHG Projects: Key Characteristics

› 4.2 Identify Quantification Methods Used in Case Studies

› 4.3 Evaluate Challenges Faced in GHG Quantification

› 4.4 Extract Lessons Learned from Project Implementations

› 4.5 Design a GHG Quantification Framework Based on Case Studies

› 4.6 Present and Discuss Findings: Learning from Successful Projects

• 5 Evaluating GHG Reduction Strategies in Project Implementation

— 6 classes

› 5.1 Analyze GHG Reduction Strategies in Project Context

› 5.2 Compare Quantification Methods for GHG Reductions

› 5.3 Assess Stakeholder Impact on GHG Reduction Outcomes

› 5.4 Evaluate Cost-Effectiveness of GHG Reduction Approaches

› 5.5 Interpret Case Studies on Successful GHG Strategies

› 5.6 Develop Recommendations for Enhanced GHG Reduction Implementation

• 1 Fundamentals of GHG Inventories and Data Collection — 6 classes

- › 1.1 Understand GHG Inventories and Their Importance
- › 1.2 Identify Key Components of GHG Data Collection
- › 1.3 Explore Methods for Accurate Data Gathering
- › 1.4 Evaluate Data Sources for GHG Inventories
- › 1.5 Implement GHG Data Quality Assurance Techniques
- › 1.6 Analyze and Report GHG Data Effectively

• 2 Identifying Data Sources and Methodologies — 6 classes

- › 2.1 Identify Relevant Data Sources for GHG Quantification
- › 2.2 Analyze Methodologies for Data Collection in GHG Projects
- › 2.3 Evaluate the Reliability of Different Data Sources
- › 2.4 Compare Qualitative and Quantitative Data Collection Techniques
- › 2.5 Assess the Impact of Data Quality on GHG Reporting
- › 2.6 Implement Data Collection Strategies for Effective Project Assessment

• 3 Quantitative Data Collection Techniques — 6 classes

- › 3.1 Identify Key Quantitative Data Types for GHG Projects
- › 3.2 Explore Techniques for Designing Quantitative Surveys
- › 3.3 Implement Statistical Sampling Methods for Data Collection
- › 3.4 Utilize Technology for Efficient Data Capture
- › 3.5 Analyze Collected Quantitative Data for Accuracy and Relevance
- › 3.6 Present Quantitative Data Findings to Stakeholders Effectively

• 4 Qualitative Data Collection Techniques and Stakeholder Engagement — 6 classes

- › 4.1 Understand Qualitative Data Collection Techniques
- › 4.2 Identify Key Stakeholders in GHG Projects
- › 4.3 Design Effective Qualitative Surveys for Stakeholder Engagement
- › 4.4 Conduct Effective Interviews with Stakeholders
- › 4.5 Analyze Qualitative Data to Inform GHG Quantification
- › 4.6 Develop a Stakeholder Engagement Plan for GHG Projects

• 5 Validating Data and Ensuring Accuracy and Integrity — 6 classes

- › 5.1 Understand the Importance of Data Validation in GHG Projects
- › 5.2 Identify Common Sources of Data Errors in GHG Reporting
- › 5.3 Explore Techniques for Data Quality Assessment
- › 5.4 Implement Procedures for Data Verification and Review
- › 5.5 Analyze Case Studies of Data Integrity Failures
- › 5.6 Develop Best Practices for Ensuring Accurate Data Collection

• 1 Understanding Greenhouse Gases and Their Impact — 6 classes

- › 1.1 Define Greenhouse Gases and Their Types
- › 1.2 Explore the Sources of Greenhouse Gas Emissions
- › 1.3 Analyze the Greenhouse Effect and Its Environmental Impacts
- › 1.4 Discuss the Role of GHGs in Climate Change
- › 1.5 Investigate Global Efforts to Mitigate GHG Emissions
- › 1.6 Apply GHG Quantification Concepts to Real-World Scenarios

• 2 Fundamentals of GHG Quantification Methodologies — 6 classes

- › 2.1 Define and Describe GHG Quantification Principles
- › 2.2 Identify Key GHG Sources and Sinks in Projects
- › 2.3 Explore Various GHG Quantification Methodologies
- › 2.4 Analyze the Benefits of Accurate GHG Measurement
- › 2.5 Implement GHG Data Collection Techniques
- › 2.6 Evaluate GHG Reduction Strategies Through Quantification

• 3 Project-Based Approaches to GHG Accounting — 6 classes

- › 3.1 Define Project-Based Approaches for GHG Accounting
- › 3.2 Identify Key Principles of GHG Quantification in Projects
- › 3.3 Analyze Different Types of GHG Emission Sources in Projects
- › 3.4 Evaluate Project Boundaries for Accurate GHG Reporting
- › 3.5 Apply GHG Quantification Techniques to Sample Projects
- › 3.6 Develop a GHG Accounting Framework for Project Implementation

• 4 Data Collection and Management for GHG Quantification — 6 classes

- › 4.1 Identify Key Data Requirements for GHG Projects
- › 4.2 Assess Sources of Emission Data for Accuracy
- › 4.3 Design Effective Data Collection Methods for GHG Quantification
- › 4.4 Implement Data Management Practices for GHG Reporting
- › 4.5 Analyze Data Integrity and Address Potential Gaps
- › 4.6 Apply Data Collection Standards to Real-World GHG Projects

• 5 Verification and Reporting of GHG Emissions — 6 classes

- › 5.1 Understand the Importance of GHG Verification
- › 5.2 Identify Key Elements of GHG Reporting Standards
- › 5.3 Explore Common GHG Verification Processes
- › 5.4 Analyze the Role of Third-Party Verifiers in GHG Reporting
- › 5.5 Examine Case Studies of Successful GHG Verification
- › 5.6 Develop a GHG Reporting Framework for Projects

• 1 Understanding ISO 14064-2: Framework and Principles — 6 classes

- › 1.1 Define the Scope of ISO 14064-2 Standards
- › 1.2 Identify Key Principles of GHG Quantification
- › 1.3 Explore the Structure of the ISO 14064-2 Framework
- › 1.4 Analyze the Importance of GHG Accounting in Projects
- › 1.5 Examine the Role of Continuous Monitoring in GHG Management
- › 1.6 Apply ISO 14064-2 Principles to a Sample Project Scenario

• 2 Defining Project Boundaries for GHG Accounting — 6 classes

- › 2.1 Understand the Importance of Project Boundaries in GHG Accounting
- › 2.2 Identify Key Components of Project Boundaries as per ISO 14064-2
- › 2.3 Analyze Methods for Defining Project Boundaries in GHG Projects
- › 2.4 Evaluate Different Types of Project Boundaries: Organizational vs. Operational
- › 2.5 Apply the Project Boundary Framework to Real-World Scenarios
- › 2.6 Review and Validate Project Boundaries for Compliance with ISO Standards

• 3 Data Collection and Management for GHG Quantification — 6 classes

- › 3.1 Identify Key Data Sources for GHG Quantification
- › 3.2 Collect Reliable Baseline Data for Projects
- › 3.3 Implement Data Management Systems for GHG Tracking
- › 3.4 Develop Data Quality Assurance Procedures
- › 3.5 Analyze Data to Calculate GHG Emissions
- › 3.6 Report Findings and Ensure Compliance with ISO 14064-2

• 4 Selecting GHG Quantification Methods and Tools — 6 classes

- › 4.1 Identify Key GHG Quantification Principles
- › 4.2 Assess Different GHG Quantification Methods
- › 4.3 Compare Tools for GHG Data Collection
- › 4.4 Evaluate Accuracy and Completeness of GHG Estimates
- › 4.5 Select Appropriate GHG Quantification Tools for Projects
- › 4.6 Integrate GHG Quantification into Project Implementation

• 5 Verification and Reporting of GHG Emissions in Projects — 6 classes

- › 5.1 Understand the Importance of GHG Verification in Project Accountability
- › 5.2 Identify Key Components of ISO 14064-2 Verification Principles
- › 5.3 Analyze Methods for Quantifying GHG Emissions in Projects
- › 5.4 Explore Reporting Requirements for GHG Emissions under ISO 14064-2
- › 5.5 Develop a GHG Emissions Verification Plan for Project Implementation
- › 5.6 Assess the Impact of Verification Findings on Project Sustainability Goals

• 1 Understanding GHG Emissions: Fundamentals and Classifications — 6 classes

- › 1.1 Define GHG Emissions and Their Relevance to Climate Change
- › 1.2 Identify Different Types of Greenhouse Gases and Their Sources
- › 1.3 Explore the Global Warming Potential (GWP) of Various GHGs
- › 1.4 Classify GHG Emissions: Direct vs. Indirect Sources
- › 1.5 Analyze the Impact of GHG Emissions on Project Evaluation
- › 1.6 Apply GHG Classification to a Real-World Project Scenario

• 2 ISO 14064-2 Framework: Standards and Methodologies — 6 classes

- › 2.1 Understand the ISO 14064-2 Framework Overview
- › 2.2 Identify Key Terms and Definitions in GHG Quantification
- › 2.3 Explore Methodological Approaches for GHG Accounting
- › 2.4 Analyze Project Boundary Determination Techniques
- › 2.5 Evaluate Data Collection and Management Strategies
- › 2.6 Implement Monitoring and Reporting Practices for GHG Projects

• 3 Project Impact Assessment: Identifying and Measuring Emission Sources — 6 classes

- › 3.1 Define Key Concepts in GHG Emission Sources
- › 3.2 Identify Common Emission Sources in Projects
- › 3.3 Analyze Project Activities for GHG Emissions
- › 3.4 Measure GHG Emissions Using Standardized Methods
- › 3.5 Assess the Impact of GHG Emission Reduction Strategies
- › 3.6 Develop a GHG Quantification Plan for Your Project

• 4 Data Collection and Management for GHG Quantification — 6 classes

- › 4.1 Identify Key Data Sources for GHG Projects
- › 4.2 Collecting Primary Data: Techniques and Best Practices
- › 4.3 Understanding Secondary Data and Its Application in GHG Quantification
- › 4.4 Develop a Data Management Plan for GHG Projects
- › 4.5 Ensure Data Quality: Validation and Verification Processes
- › 4.6 Analyze and Report Collected Data for GHG Assessments

• 5 Reporting and Communicating GHG Results: Strategies for Transparency — 6 classes

- › 5.1 Analyze Key GHG Reporting Requirements and Standards
- › 5.2 Identify Stakeholders and Tailor Communication Strategies
- › 5.3 Develop Transparent GHG Data Presentation Techniques
- › 5.4 Utilize Effective Visual Aids for GHG Reporting
- › 5.5 Create a GHG Communication Plan for Stakeholder Engagement
- › 5.6 Evaluate Feedback Mechanisms for Continuous Improvement in Reporting

• 1 Understanding ISO 14064-2: Framework and Principles — 6 classes

- › 1.1 Explore the Importance of GHG Quantification in Projects
- › 1.2 Identify the Key Components of ISO 14064-2 Framework
- › 1.3 Analyze the Principles of GHG Accounting and Reporting
- › 1.4 Evaluate the Role of Stakeholders in GHG Mitigation Projects
- › 1.5 Develop a GHG Quantification Plan Using ISO 14064-2 Guidelines
- › 1.6 Implement Monitoring and Reporting Practices for GHG Projects

• 2 Identifying and Managing GHG Emissions Sources — 6 classes

- › 2.1 Define GHG Emissions Sources in Project Context
- › 2.2 Analyze the Impact of Different GHG Emissions Types
- › 2.3 Identify GHG Emissions Sources in a Sample Project
- › 2.4 Assess the Significance of GHG Emissions Sources
- › 2.5 Develop a GHG Mitigation Strategy for Identified Sources
- › 2.6 Evaluate the Effectiveness of GHG Management Practices

• 3 Data Collection and Quantification Methodologies — 6 classes

- › 3.1 Identify Key Data Sources for GHG Quantification
- › 3.2 Establish Data Collection Protocols for Sustainability Projects
- › 3.3 Analyze Data Quality and Relevance for Accurate Measurement
- › 3.4 Implement Quantification Methodologies for Emission Reduction Strategies
- › 3.5 Utilize Software Tools for GHG Data Analysis and Reporting
- › 3.6 Evaluate and Improve Data Collection Practices Based on Findings

• 4 Implementing GHG Mitigation Strategies — 6 classes

- › 4.1 Identify Key GHG Mitigation Opportunities in Projects
- › 4.2 Analyze Current GHG Emission Baselines for Effective Targeting
- › 4.3 Develop Actionable GHG Mitigation Strategies for Project Implementation
- › 4.4 Engage Stakeholders for Successful GHG Mitigation Strategy Adoption
- › 4.5 Monitor and Measure the Effectiveness of GHG Mitigation Efforts
- › 4.6 Report and Communicate GHG Mitigation Outcomes to Stakeholders

• 5 Reporting and Verification: Ensuring Credibility and Transparency — 6 classes

- › 5.1 Understand the Importance of GHG Reporting in Sustainability Leadership
- › 5.2 Identify Key Components of Effective GHG Quantification
- › 5.3 Explore Verification Processes for Enhanced Credibility in Reporting
- › 5.4 Analyze Best Practices in GHG Reporting and Verification
- › 5.5 Develop a Framework for Transparent GHG Reporting in Projects
- › 5.6 Implement Strategies for Continuous Improvement in GHG Verification