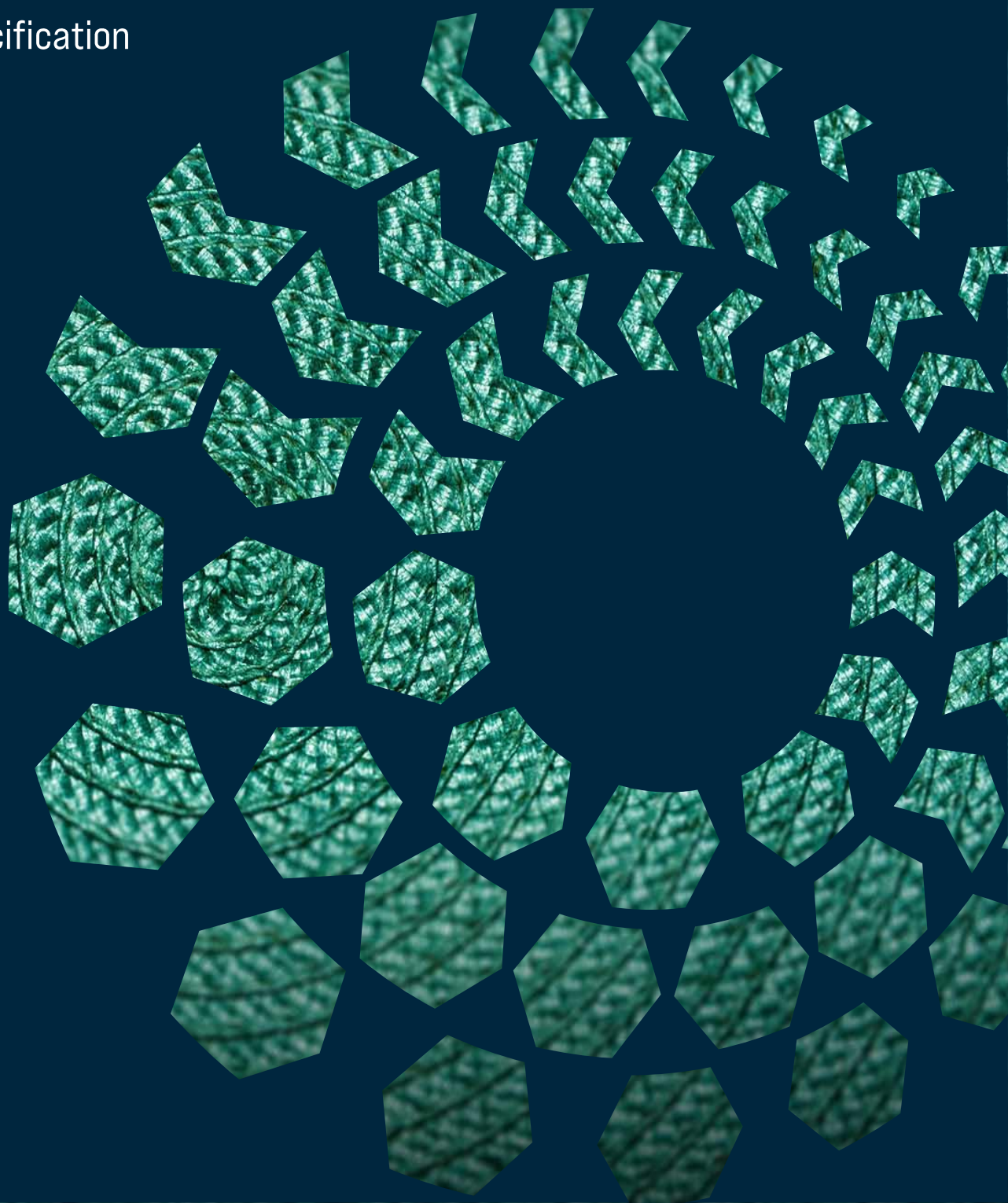
ISEP
Institute of Sustainability & Environmental Professionals

ASSOCIATE CERTIFICATE IN CARBON ACCOUNTING

Course Specification



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1. About Us

The Institute of Sustainability and Environmental Professionals (ISEP) is the global membership body for anyone wanting sustainable change that delivers across government, business and society. By harnessing the collective expertise and experience of our global membership, we set the standard in sustainable leadership, knowledge, skills and practice.

Whether you're an environmental specialist, a sustainability generalist, or just want to be a champion for change in your area – we empower people with cutting-edge evidence and insights, enable with world-class training and guidance, and ensure excellence with unrivalled professional standards and assessment.

We are passionate about uniting talent, creating collaborations and forming networks that influence government policy, drive best-practice within business, and inspire change across society.

No matter what stage you're at in your career or what sector you work in, we can equip you with the skills, standards and support needed to nurture your talent and advance your career.

2. Background

The Associate Certificate in Carbon Accounting course has been developed to equip individuals with a comprehensive foundational understanding of carbon accounting.

Drawing on internationally recognised frameworks and ethical standards, the course equips participants to support organisational and project-level climate strategies with integrity and competence. By the end of the course Leaners will be able to understand:

- The external context
- Goals and limitations of carbon accounting
- Relevant frameworks
- How data is used and communicated
- Communication, in line with global best practices.

3. Course Duration

The Guided Learning Hours for the Associate Certificate in Carbon Accounting course is a minimum of 40 hours (excluding breaks and assessment); which can include the pre-course reading, guided homework as well as teaching delivery. This will normally be delivered over a period of five consecutive days, but can be split over a reasonable period, with ISEP approval.

4. Who is this Course for?

This course is aimed at professionals with university-level education or equivalent years of work experience, who are new to carbon accounting.

Pre-course reading material should include the frameworks and standards that are to be referenced during the course. These include:

- ISO 14064 –1 Greenhouse gases - Specification with guidance at the organisation level for quantification and reporting of greenhouse gas emissions and removals.
- ISO 14064–2 Greenhouse gases - Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements.
- ISO 14068–1:2023 Climate change management — Transition to net zero Part 1: Carbon neutrality
- ISO 14067:2018 Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification
- PAS 2050 Specification for the assessment of the life cycle greenhouse gas emissions of goods and services
- PAS 2080 Carbon Management in Infrastructure and Built Environment

(And successors, replacements, or alternatives to these standards as they become available)

After successful course completion learners will be considered able to undertake basic carbon accounting with supervision and will be eligible to join ISEP's Register of Carbon Accountants and Auditors at Associate Level. Associate Level Carbon Accountants can go on to develop their knowledge and experience further, to be able to apply to move up the Register of Carbon Accountants and Auditors to Registered or Principal Level.

5. Materials and Certification

There are no ISEP materials available for this course and course providers must develop materials for approval by ISEP.

Course providers must ensure that their materials are maintained adequately to take account of evolving carbon accounting practices and techniques.

If the course is being delivered internally for an organisation, rather than as a public course, exercises should use systems and background of the host organisation.

This course is ISEP Certified and certificates are provided by ISEP to learners who have successfully completed the course. Dual branding of certificates to include training partner logos is available as an option. Please contact training@isepglobal.org for further details.

6. Assessment

The course provider should develop a methodology for assessing learners and include this in their submission to ISEP for approval. Learners' knowledge and understanding of the course learning outcomes should be assessed using a combination of practical exercises, case studies, presentations, site visits (where practical) and an end of course examination.

Note: The assessment should be 'balanced'; course providers should avoid assessing learners by either practical work or by examination alone.

Each learning outcome must be separately assessed.

The end-of-course examination should examine the learners' understanding and application of the course topics – it should not be a test of memory of the course discussions or literature. Should the training provider wish to utilise the Associate Certificate in Carbon Accounting course examination process provided by another professional body, ISEP will, on application, consider accepting this examination assessment mark for its purposes.

The course examination may be either:

- 'open book' under exam conditions (learners may have the supplied course notes, standards and their own course notes); or
- 'closed book' (learners may have only the standards)

7. Trainer Requirements

In addition to the trainer requirements set out in the policy manual, "Guide to becoming an ISEP Training Centre", trainers are required to be a Full member of ISEP, or as a minimum have equivalent knowledge and experience that has been assessed against the ISEP Sustainability Skills Map at the managerial level. Trainers must also have proven experience of carbon accounting.

8. Learning Outcomes

There are 15 learning outcomes for this course, these are grouped in three topics, which are as follows:

Topic 1: External context, goals and limitations
1. Understand and be able to apply the principles of carbon accounting and ethical responsibility and how they relate to the accounting process
2. Understand the goals of organisational carbon footprinting and emissions inventories for organisations, products/services and projects
3. Understand the terminology and concepts behind carbon accounting
4. Understand and be able to apply baselines relating to different applications (organisation, product/service and project)
Topic 2: Frameworks and use of data
5. Understand how an organisation would apply the ISEP GHG Management Hierarchy
6. Understand how to apply established frameworks to calculate emissions for organisations, product/service and projects
7. Identify and be able to describe established ISO standards on carbon accounting
8. Identify and be able to apply established conversion factors appropriate for the geography of the organisation product/service or project
9. Identify and describe regulatory and voluntary reporting frameworks
10. Understand and describe the difference between primary and secondary data
11. Understand and describe the differences between market and location-based emissions
12. Understand the principles of data uncertainty, materiality and a risk-based approach
13. Apply a pre-defined quantification approach
Topic 3: Communication
14. Understand and demonstrate ability to write a GHG methodology report in compliance with the appropriate framework
15. Understand and apply data analysis, mapping and presentation skills.

Detailed assessment criteria and scope for each learning outcome are provided in the table below.

The course should contain a blend of teaching methods, including taught modules, discussions, exercises and workshops, designed not only to deliver knowledge but also to develop skills in carbon accounting. Practical tasks could include the development of checklists for the carbon inventory, seeking suitable emissions factors and calculating emissions, for example.

Learning outcome (the learner will…)	**Assessment criteria** (the learner will be able to demonstrate knowledge by…)	**Prescribed content** (the learner will be familiar with…)
Topic 1: External context, goals and limitations		
1. Understand and be able to apply the principles of carbon accounting and ethical responsibility and how they relate to the accounting process	1.1 Understand the **principles of accounting** 1.2 Understand **basic financial accounting concepts** 1.3 Engage with the **ethical responsibility** to resist greenwashing and promote integrity	**Principles of accounting:** Relevance, Completeness, Consistency, Transparency, Accuracy, Timeliness. **Basic financial accounting concepts:** • The accounting equation (capital = assets – liabilities), and how this would apply to emissions and carbon credits. • Accrual versus cash accounting, and how this would apply to timescales of emissions and removals. • Financial statements (balance sheet, income statement / Profit and Loss, cash-flow statement), and how these would link to climate disclosures within financial accounts. • Materiality and conservatism, and how these principles will apply to carbon accounting decisions. **Ethical responsibility:** • Rules and best practice around statements such as net zero and carbon neutral. • ISEP's Code of Professional Conduct.
2. Understand the goals of organisational carbon footprinting and emissions inventories for organisations, products/services and projects	2.1 Understand the **intended applications** of carbon accounting 2.2 Understand the **reasons** for carrying out the inventory 2.3 Understand the **intended audience** for carbon accounting outputs 2.4 Understand the **limitations** of carbon accounting	**Intended applications:** at organisational, product/services and project levels, including how outputs support decision-making, sustainability reporting, and performance improvement. **Reasons:** including organisational benefits, compliance, stakeholder engagement, and sustainability strategy. **Intended audience:** including internal stakeholders (management, operations teams) and external stakeholders

Learning outcome (the learner will...)	Assessment criteria (the learner will be able to demonstrate knowledge by...)	Prescribed content (the learner will be familiar with...)
		(regulators, investors, customers), and how they use the information. **Limitations:** including assumptions, data gaps, boundary definitions, uncertainties, and practical reporting challenges.
3. Understand the terminology and concepts behind carbon accounting	3.1 Understand **key terminology** used in carbon accounting 3.2 Understand **core concepts** underpinning carbon accounting	**Key terminology** used in carbon accounting, including emissions flows, process mapping, the carbon cycle, net zero, carbon neutral, carbon positive, whole life carbon, and carbon intensity. **Core concepts:** such as measurement boundaries, scopes of emissions (Scope 1, 2, 3), organisational vs product-level accounting, and the relationship between carbon accounting and sustainability strategy.
4. Understand and be able to apply baselines relating to different applications (organisation, product/service and project)	4.1 Understand the principles and purposes of **baseline years and structures** 4.2 Understand the principles and purposes of **baseline scenarios**	**Baseline years and structures:** including how they are selected, maintained, and used to measure changes in emissions over time. **Baseline scenarios:** including how they are developed, what assumptions they use, and how they guide emissions reduction planning.
Topic 2: Frameworks and use of data		
5. Understand how an organisation would apply the ISEP GHG Management Hierarchy	5.1 Demonstrate knowledge of the **ISEP GHG Management Hierarchy**	**ISEP GHG Management Hierarchy:** including its structure, key principles, and how it guides organisational emissions reduction decisions
6. Understand how to apply established frameworks to calculate emissions for organisations, product/service and projects	6.1 Understand **established frameworks** used to calculate emissions from various sources 6.2 Understand how these frameworks meet relevant **regulatory guidelines and programmes**	**Established frameworks:** including methods for calculating emissions from energy consumption, transportation, and waste. Examples include the IPCC Guidelines for National Greenhouse Gas Inventories and the Greenhouse Gas (GHG) Protocol.

Learning outcome (the learner will…)	**Assessment criteria** (the learner will be able to demonstrate knowledge by…)	**Prescribed content** (the learner will be familiar with…)
		Regulatory guidelines and programmes: how the frameworks ensure compliance with national requirements in the country where the learner normally works.
7. Identify and be able to describe established ISO standards on carbon accounting	7.1 Identify **established ISO standards** on carbon accounting 7.2 Describe the **purpose and application** of these standards	**Established ISO standards:** on carbon accounting such as: • ISO 14064-1 • ISO 14064-2 • ISO 14068-1:2023 • ISO 14067-1 • PAS2050 • PAS2080 (And successors, replacements, or alternatives to these standards as they become available) **Purpose and application:** how these ISO and PAS standards are used in organisational, product/service, or project-level carbon accounting.
8. Identify and be able to apply established conversion factors appropriate for the geography of the organisation product/service or project	8.1 Identify **established conversion factors** relevant to the geography of the subject 8.2 Apply established **conversion factors** in carbon accounting calculations	**Established conversion factors:** including those published by DESNZ in the UK, the EPA in the USA, or equivalent authorities in other regions. Application of **conversion factors:** selecting and using appropriate factors to calculate emissions accurately for different geographies.
9. Identify and describe regulatory and voluntary reporting frameworks.	9.1 Identify **regulatory and voluntary reporting frameworks** 9.2 Describe the **purpose of reporting frameworks**	**Regulatory and voluntary reporting frameworks** including: • Organisational reporting frameworks such as CSRD, IFRS, SBTi, CDP. • Product reporting such as EPDs PACT and SKA for buildings. **Purpose of reporting frameworks:** reasons organisations and products report emissions, including compliance with

Learning outcome (the learner will…)	Assessment criteria (the learner will be able to demonstrate knowledge by…)	Prescribed content (the learner will be familiar with…)
		regulations, transparency for stakeholders, performance improvement, and alignment with corporate sustainability goals.
10. Understand and describe the difference between primary and secondary data.	10.1 Understand the difference between **primary and secondary data** 10.2 Describe the **importance of primary data** for emissions inventories	**Primary data:** is accurate and specific data, including utility bills, fuel consumption logs, supplier-specific emissions reports and production process data. **Secondary date:** fills the gaps where primary data is not available and includes proxy or estimated data generated by artificial intelligence. Examples of such data are spend and activity-based usage and industry benchmarks. **Importance of primary data:** rationale for prioritising primary data to ensure accuracy and reliability in emissions calculations.
11. Understand and describe the differences between market and location-based emissions.	**11.1** Understand the differences between **market and location-based emissions** 11.2 Describe how these approaches affect **emissions calculations**	**Market-based emissions:** are based on energy purchasing decisions and contracts such as green tariffs, RECs or REGOs. As such they reflect the emissions associated with specific contracts rather than the actual emissions generated by energy consumption. **Location-based emissions:** are based on the average emissions intensity of the local electricity grid where energy is consumed. Location based emissions reflect the physical reality of emissions generated by energy consumption. **Emissions calculations:** how location and market-based approaches influence reported emissions and organisational decision-making.
12. Understand the principles of data uncertainty, materiality and a risk-based approach	12.1 Understand **data uncertainty** 12.2 Understand **materiality and conservatism**	**Data uncertainty:** the concept of proxy data, including limitations of data generated by AI, and its impact on emissions calculations.

Learning outcome (the learner will…)	Assessment criteria (the learner will be able to demonstrate knowledge by…)	Prescribed content (the learner will be familiar with…)
	12.3 Understand a **risk-based approach**	**Materiality and conservatism:** principles applied in carbon accounting to ensure completeness, accuracy, and reliability. **Risk-based approach:** applying risk assessment methods to prioritize focus areas, address uncertainties, and support decision-making in carbon accounting.
13. Apply a pre-defined quantification approach	13.1 **Identify** Scope 1 and Scope 2 GHG emissions and removals 13.2 **Calculate** Scope 1 and Scope 2 GHG emissions and removals	**Identify:** sources and sinks within an organisation according to a pre-defined quantification approach. **Calculate:** formulas, and methods to quantify emissions and removals in accordance with a pre-defined quantification approach.
Topic 3: Communication		
14. Understand and demonstrate ability to write a GHG methodology report in compliance with the appropriate framework	14.1 Ability to write a **GHG methodology report** in compliance with the appropriate framework 14.2 Demonstrate **transparency** in reporting methodology	**GHG methodology report:** structure, required sections, alignment with the relevant framework, and reference to accounting principles. **Transparency:** clearly document assumptions, data sources, calculations, and limitations to ensure credibility and reliability of the report.
15. Understands and apply data analysis, mapping and presentation.	15.1 **Analyse** and **map** data 15.2 **Communicate** inventory results to an internal non-expert audience.	**Analyse** inventory results to identify trends, hotspots, and areas for improvement **Map** emissions sources, flows, and hotspots across the organisation, products/services, or projects to visualise patterns and identify priority areas for improvement **Communicate** clearly what this means to an internal non-expert audience, including tailoring language and visuals to suit the audience

9. Progression After this Course

All learners who have successfully completed this ISEP Certified course will be eligible to join ISEP's Register of Carbon Accountants and Auditors at Associate level, once this register is live. All learners are encouraged to continue their development so that they can apply for higher levels of the ISEP Register of Carbon Accountants and Auditors in future.

The Register of Carbon Accountants and Auditor levels above Associate require the demonstration of competencies in one or more of the following specialisms:

- Corporate carbon accounting
- Product/service carbon accounting
- Project carbon accounting

All of these levels require a candidate to demonstrate appropriate carbon accounting experience and further specialist CPD.

Course providers should provide information to learners on the ISEP Register of Carbon Accountants and Auditors, and should be aware that the qualification criteria may be subject to review.

10. Contact Us

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