Digital Sustainability Consultant (DSC)

**Learning Pathway: Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy**

This curriculum prepares learners to lead large-scale sustainability consultancy practices and drive industry-wide transformation initiatives that establish new professional standards. Graduates will develop expertise in consultancy practice leadership, methodological innovation, and systemic industry transformation. They typically establish and lead major consulting practices, develop new consulting methodologies, and influence industry-wide approaches to digital sustainability transformation across multiple sectors.

EQF Level 7 | 165 ECTS | 32 Learning Units | Work-Based Learning: 44.8% (exceeds 20% minimum)

# Programme Overview

**Role Focus:** Advisory services and solution bridging

**Target Audience:** Senior consulting professionals seeking advanced degree-level expertise in sustainability transformation leadership and large-scale consulting practice development

**Learning Approach:** EQF Level 7 professional development programme with 165 ECTS, combining theoretical knowledge with practical application through structured learning and standardised work-based learning integration.

**Core Tools & Platforms:** Consulting methodologies, Assessment frameworks, Solution design tools, Client engagement platforms

# Competence Frameworks Alignment

**GreenComp Framework:** 2.2 Critical thinking, 3.3 Political agency, 4.2 Envisioning

## e-CF Framework (Detailed Mapping)

**A.4:** Product/Service Planning - Level 3

**A.5:** Architecture Design - Level 3

**E.3:** Risk Management - Level 3

*Learning outcomes are mapped directly to GreenComp and e-CF framework descriptors*

# Dual Education Model & Work-Based Learning

**WBL Compliance:** 44.8% work-based learning (exceeds minimum 20%)

## Model Implementation

**Minimum Wbl Percentage:** 20

**Employer Partnership:** Mandatory for all programmes

**Workplace Learning:** Integrated throughout curriculum

**Assessment Split:** 70% academic, 30% workplace-based

## Quality Assurance

**Workplace Standards:** Standardised workplace learning environments

**Mentor Qualifications:** Certified workplace mentors

**Assessment Criteria:** Unified workplace assessment standards

**Monitoring Systems:** Regular quality monitoring of WBL delivery

# Flexible Learning Pathways

**Modular Design:** Learning units designed for flexible recombination

**Competence Catalog:** Integrated with competence-based learning unit catalog

**Stackability Options:** Horizontal and vertical stacking supported

**Pathway Flexibility:** Multiple entry and exit points available

# Assessment Framework

**Primary Method:** Advanced consulting degree portfolio

**Work-Based Component:** Advanced consulting practice innovation and industry leadership

**Assessment Components:**

**• Large-scale transformation project:** 45%

**• Consulting methodology innovation:** 30%

**• Industry practice contribution:** 25%

**Rationale:** Degree programmes require significant original contribution to consulting practice and large-scale transformation capability

# Delivery Framework

|  |  |
| --- | --- |
| **Total Contact Hours** | 825 hours |
| **Self-Study Hours** | 1420 hours |
| **Work-Based Hours** | 1848 hours |
| **WBL Percentage** | 44.8% (exceeds 20% minimum) |
| **Work-Based Learning** | Integrated (dual education model) |
| **Delivery Methods** | Classroom, Online, Workplace, Blended |

# Learning Unit Structure

## Learning Unit 1: Sustainability Assessment and Benchmarking

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Analysis |

**Description:** Evaluate organizational sustainability performance against relevant benchmarks

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Pioneer solution design frameworks in sustainability assessment and benchmarking within professional sustainability practice.

*Framework: GreenComp: 3.3 Political agency*

**Skills:** Lead transformation solution architecture design in sustainability assessment and benchmarking to support organisational sustainability objectives.

*Framework: e-CF: Architecture Design - Level 3*

**Competence:** Lead strategic transformation of consulting delivery responsibilities for sustainability assessment and benchmarking while ensuring professional standards and stakeholder value.

*Framework: e-CF: Risk Management - Level 3*

## Learning Unit 2: Sustainability Frameworks and Standards

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Management |

**Description:** Overview of major sustainability frameworks, regulations, and standards

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Establish implementation roadmapping for sustainability frameworks and standards within professional sustainability practice.

*Framework: GreenComp: 4.2 Envisioning*

**Skills:** Create breakthrough implementation facilitation of sustainability frameworks and standards to support organisational sustainability objectives.

*Framework: e-CF: Risk Management - Level 3*

**Competence:** Shape industry practices in solution implementation leadership in sustainability frameworks and standards while ensuring professional standards and stakeholder value.

*Framework: e-CF: Product/Service Planning - Level 3*

## Learning Unit 3: Digital Circular Business Models

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | General |

**Description:** Design business models that leverage digital technologies for circular economy

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Research consulting best practices in digital circular business models within professional sustainability practice.

*Framework: GreenComp: 2.2 Critical thinking*

**Skills:** Innovate advisory service delivery for digital circular business models to support organisational sustainability objectives.

*Framework: e-CF: Product/Service Planning - Level 3*

**Competence:** Influence sector-wide advisory relationship management for digital circular business models while ensuring professional standards and stakeholder value.

*Framework: e-CF: Architecture Design - Level 3*

## Learning Unit 4: Sustainable ICT Procurement and Policy

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Management |

**Description:** Develop policies and practices for sustainable technology procurement

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Advance client assessment methodologies for sustainable ict procurement and policy within professional sustainability practice.

*Framework: GreenComp: 3.3 Political agency*

**Skills:** Research and develop client needs analysis for sustainable ict procurement and policy to support organisational sustainability objectives.

*Framework: e-CF: Architecture Design - Level 3*

**Competence:** Drive systemic change in client engagement projects involving sustainable ict procurement and policy while ensuring professional standards and stakeholder value.

*Framework: e-CF: Risk Management - Level 3*

## Learning Unit 5: AI for Sustainable Decision-Making

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 7 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Data |

**Description:** Using AI tools to support sustainability decisions in organizations

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Conceptualise solution design frameworks in ai for sustainable decision-making within professional sustainability practice.

*Framework: GreenComp: 4.2 Envisioning*

**Skills:** Lead transformation solution architecture design in ai for sustainable decision-making to support organisational sustainability objectives.

*Framework: e-CF: Risk Management - Level 3*

**Competence:** Lead strategic transformation of consulting delivery responsibilities for ai for sustainable decision-making while ensuring professional standards and stakeholder value.

*Framework: e-CF: Product/Service Planning - Level 3*

## Learning Unit 6: Large Language Prompt Design for Sustainability Data Science

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Data |

**Description:** Design effective prompts for large language models applied to sustainability data contexts

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Pioneer implementation roadmapping for large language prompt design for sustainability data science within professional sustainability practice.

*Framework: GreenComp: 2.2 Critical thinking*

**Skills:** Create breakthrough implementation facilitation of large language prompt design for sustainability data science to support organisational sustainability objectives.

*Framework: e-CF: Product/Service Planning - Level 3*

**Competence:** Shape industry practices in solution implementation leadership in large language prompt design for sustainability data science while ensuring professional standards and stakeholder value.

*Framework: e-CF: Architecture Design - Level 3*

## Learning Unit 7: Sector-specific Green IT Applications

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 7 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Technical Implementation |

**Description:** Specialized green IT approaches for different industry sectors

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Establish consulting best practices in sector-specific green it applications within professional sustainability practice.

*Framework: GreenComp: 3.3 Political agency*

**Skills:** Innovate advisory service delivery for sector-specific green it applications to support organisational sustainability objectives.

*Framework: e-CF: Architecture Design - Level 3*

**Competence:** Influence sector-wide advisory relationship management for sector-specific green it applications while ensuring professional standards and stakeholder value.

*Framework: e-CF: Risk Management - Level 3*

## Learning Unit 8: Systematic Innovation for Sustainability Challenges

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 7 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Technical Implementation |

**Description:** Apply structured innovation methodologies to develop breakthrough sustainability solutions

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Research client assessment methodologies for systematic innovation for sustainability challenges within professional sustainability practice.

*Framework: GreenComp: 4.2 Envisioning*

**Skills:** Research and develop client needs analysis for systematic innovation for sustainability challenges to support organisational sustainability objectives.

*Framework: e-CF: Risk Management - Level 3*

**Competence:** Drive systemic change in client engagement projects involving systematic innovation for sustainability challenges while ensuring professional standards and stakeholder value.

*Framework: e-CF: Product/Service Planning - Level 3*

## Learning Unit 9: Ethics and Governance in Digital Innovation

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Ethics & Governance |

**Description:** Evaluate ethical implications of digital systems and ensure inclusive governance

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Advance solution design frameworks in ethics and governance in digital innovation within professional sustainability practice.

*Framework: GreenComp: 2.2 Critical thinking*

**Skills:** Lead transformation solution architecture design in ethics and governance in digital innovation to support organisational sustainability objectives.

*Framework: e-CF: Product/Service Planning - Level 3*

**Competence:** Lead strategic transformation of consulting delivery responsibilities for ethics and governance in digital innovation while ensuring professional standards and stakeholder value.

*Framework: e-CF: Architecture Design - Level 3*

## Learning Unit 10: Circular Economy for Digital Systems

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Circular Economy |

**Description:** Comprehensive circular economy principles and lifecycle thinking for sustainable digital system design and management

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Conceptualise implementation roadmapping for circular economy for digital systems within professional sustainability practice.

*Framework: GreenComp: 3.3 Political agency*

**Skills:** Create breakthrough implementation facilitation of circular economy for digital systems to support organisational sustainability objectives.

*Framework: e-CF: Architecture Design - Level 3*

**Competence:** Shape industry practices in solution implementation leadership in circular economy for digital systems while ensuring professional standards and stakeholder value.

*Framework: e-CF: Risk Management - Level 3*

## Learning Unit 11: Sustainable Digital Transformation Strategy

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | General |

**Description:** Develop holistic strategies for sustainability-focused digital transformation

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Pioneer consulting best practices in sustainable digital transformation strategy within professional sustainability practice.

*Framework: GreenComp: 4.2 Envisioning*

**Skills:** Innovate advisory service delivery for sustainable digital transformation strategy to support organisational sustainability objectives.

*Framework: e-CF: Risk Management - Level 3*

**Competence:** Influence sector-wide advisory relationship management for sustainable digital transformation strategy while ensuring professional standards and stakeholder value.

*Framework: e-CF: Product/Service Planning - Level 3*

## Learning Unit 12: Applied Ethics in AI for Sustainability

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Ethics & Governance |

**Description:** Address ethical considerations in AI applications for sustainability challenges

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Establish client assessment methodologies for applied ethics in ai for sustainability within professional sustainability practice.

*Framework: GreenComp: 2.2 Critical thinking*

**Skills:** Research and develop client needs analysis for applied ethics in ai for sustainability to support organisational sustainability objectives.

*Framework: e-CF: Product/Service Planning - Level 3*

**Competence:** Drive systemic change in client engagement projects involving applied ethics in ai for sustainability while ensuring professional standards and stakeholder value.

*Framework: e-CF: Architecture Design - Level 3*

## Learning Unit 13: Data Ethics and Governance in Practice

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Data |

**Description:** Implement ethical data governance approaches for sustainability initiatives

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Research solution design frameworks in data ethics and governance in practice within professional sustainability practice.

*Framework: GreenComp: 3.3 Political agency*

**Skills:** Lead transformation solution architecture design in data ethics and governance in practice to support organisational sustainability objectives.

*Framework: e-CF: Architecture Design - Level 3*

**Competence:** Lead strategic transformation of consulting delivery responsibilities for data ethics and governance in practice while ensuring professional standards and stakeholder value.

*Framework: e-CF: Risk Management - Level 3*

## Learning Unit 14: Collaborative Tools for Green Innovation

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Analysis |

**Description:** Leverage collaborative platforms to drive sustainable innovation processes

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Advance implementation roadmapping for collaborative tools for green innovation within professional sustainability practice.

*Framework: GreenComp: 4.2 Envisioning*

**Skills:** Create breakthrough implementation facilitation of collaborative tools for green innovation to support organisational sustainability objectives.

*Framework: e-CF: Risk Management - Level 3*

**Competence:** Shape industry practices in solution implementation leadership in collaborative tools for green innovation while ensuring professional standards and stakeholder value.

*Framework: e-CF: Product/Service Planning - Level 3*

## Learning Unit 15: Circular Economy Digital Applications

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 7 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Analysis |

**Description:** Using digital tools to enable circular business practices and resource loops

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Conceptualise consulting best practices in circular economy digital applications within professional sustainability practice.

*Framework: GreenComp: 2.2 Critical thinking*

**Skills:** Innovate advisory service delivery for circular economy digital applications to support organisational sustainability objectives.

*Framework: e-CF: Product/Service Planning - Level 3*

**Competence:** Influence sector-wide advisory relationship management for circular economy digital applications while ensuring professional standards and stakeholder value.

*Framework: e-CF: Architecture Design - Level 3*

## Learning Unit 16: Work-based Sustainability Project

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 10 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 250 hours |
| **Contact Hours** | 50 hours |
| **Self-Study Hours** | 87 hours |
| **Workplace Hours** | 112 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Management |

**Description:** Apply sustainability knowledge in real-world workplace settings

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Pioneer client assessment methodologies for work-based sustainability project within professional sustainability practice.

*Framework: GreenComp: 3.3 Political agency*

**Skills:** Research and develop client needs analysis for work-based sustainability project to support organisational sustainability objectives.

*Framework: e-CF: Architecture Design - Level 3*

**Competence:** Drive systemic change in client engagement projects involving work-based sustainability project while ensuring professional standards and stakeholder value.

*Framework: e-CF: Risk Management - Level 3*

## Learning Unit 17: Circular Economy and Lifecycle Thinking

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | General |

**Description:** Analyze product lifecycles and propose circular redesign strategies

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Establish solution design frameworks in circular economy and lifecycle thinking within professional sustainability practice.

*Framework: GreenComp: 4.2 Envisioning*

**Skills:** Lead transformation solution architecture design in circular economy and lifecycle thinking to support organisational sustainability objectives.

*Framework: e-CF: Risk Management - Level 3*

**Competence:** Lead strategic transformation of consulting delivery responsibilities for circular economy and lifecycle thinking while ensuring professional standards and stakeholder value.

*Framework: e-CF: Product/Service Planning - Level 3*

## Learning Unit 18: Big Data for Environmental Intelligence

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Data |

**Description:** Leverage big data technologies to analyze environmental patterns and trends

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Research implementation roadmapping for big data for environmental intelligence within professional sustainability practice.

*Framework: GreenComp: 2.2 Critical thinking*

**Skills:** Create breakthrough implementation facilitation of big data for environmental intelligence to support organisational sustainability objectives.

*Framework: e-CF: Product/Service Planning - Level 3*

**Competence:** Shape industry practices in solution implementation leadership in big data for environmental intelligence while ensuring professional standards and stakeholder value.

*Framework: e-CF: Architecture Design - Level 3*

## Learning Unit 19: Advanced Visualisation for Sustainability Reporting

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Data |

**Description:** Create effective data visualizations to communicate sustainability performance

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Advance consulting best practices in advanced visualisation for sustainability reporting within professional sustainability practice.

*Framework: GreenComp: 3.3 Political agency*

**Skills:** Innovate advisory service delivery for advanced visualisation for sustainability reporting to support organisational sustainability objectives.

*Framework: e-CF: Architecture Design - Level 3*

**Competence:** Influence sector-wide advisory relationship management for advanced visualisation for sustainability reporting while ensuring professional standards and stakeholder value.

*Framework: e-CF: Risk Management - Level 3*

## Learning Unit 20: Data Analytics for Sustainability

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Data |

**Description:** Use data tools to derive actionable sustainability insights

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Conceptualise client assessment methodologies for data analytics for sustainability within professional sustainability practice.

*Framework: GreenComp: 4.2 Envisioning*

**Skills:** Research and develop client needs analysis for data analytics for sustainability to support organisational sustainability objectives.

*Framework: e-CF: Risk Management - Level 3*

**Competence:** Drive systemic change in client engagement projects involving data analytics for sustainability while ensuring professional standards and stakeholder value.

*Framework: e-CF: Product/Service Planning - Level 3*

## Learning Unit 21: Machine Learning and Predictive Modeling

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 7 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Data |

**Description:** Develop predictive models to assess sustainability scenarios

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Pioneer solution design frameworks in machine learning and predictive modeling within professional sustainability practice.

*Framework: GreenComp: 2.2 Critical thinking*

**Skills:** Lead transformation solution architecture design in machine learning and predictive modeling to support organisational sustainability objectives.

*Framework: e-CF: Product/Service Planning - Level 3*

**Competence:** Lead strategic transformation of consulting delivery responsibilities for machine learning and predictive modeling while ensuring professional standards and stakeholder value.

*Framework: e-CF: Architecture Design - Level 3*

## Learning Unit 22: AI-Driven Environmental Risk Modelling

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Data |

**Description:** Apply AI and machine learning to model and mitigate environmental risks

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Establish implementation roadmapping for ai-driven environmental risk modelling within professional sustainability practice.

*Framework: GreenComp: 3.3 Political agency*

**Skills:** Create breakthrough implementation facilitation of ai-driven environmental risk modelling to support organisational sustainability objectives.

*Framework: e-CF: Architecture Design - Level 3*

**Competence:** Shape industry practices in solution implementation leadership in ai-driven environmental risk modelling while ensuring professional standards and stakeholder value.

*Framework: e-CF: Risk Management - Level 3*

## Learning Unit 23: Blockchain for Sustainability Traceability

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 7 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Technical Implementation |

**Description:** Explore the use of blockchain technology for traceable, transparent sustainability practices

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Research consulting best practices in blockchain for sustainability traceability within professional sustainability practice.

*Framework: GreenComp: 4.2 Envisioning*

**Skills:** Innovate advisory service delivery for blockchain for sustainability traceability to support organisational sustainability objectives.

*Framework: e-CF: Risk Management - Level 3*

**Competence:** Influence sector-wide advisory relationship management for blockchain for sustainability traceability while ensuring professional standards and stakeholder value.

*Framework: e-CF: Product/Service Planning - Level 3*

## Learning Unit 24: Human-Centered Design for Sustainable Tech

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Analysis |

**Description:** Apply human-centered design approaches to create sustainable and inclusive digital technologies

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Advance client assessment methodologies for human-centered design for sustainable tech within professional sustainability practice.

*Framework: GreenComp: 2.2 Critical thinking*

**Skills:** Research and develop client needs analysis for human-centered design for sustainable tech to support organisational sustainability objectives.

*Framework: e-CF: Product/Service Planning - Level 3*

**Competence:** Drive systemic change in client engagement projects involving human-centered design for sustainable tech while ensuring professional standards and stakeholder value.

*Framework: e-CF: Architecture Design - Level 3*

## Learning Unit 25: Green Blockchain Applications

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 7 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Technical Implementation |

**Description:** Energy-efficient blockchain implementations for sustainability use cases

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Conceptualise solution design frameworks in green blockchain applications within professional sustainability practice.

*Framework: GreenComp: 3.3 Political agency*

**Skills:** Lead transformation solution architecture design in green blockchain applications to support organisational sustainability objectives.

*Framework: e-CF: Architecture Design - Level 3*

**Competence:** Lead strategic transformation of consulting delivery responsibilities for green blockchain applications while ensuring professional standards and stakeholder value.

*Framework: e-CF: Risk Management - Level 3*

## Learning Unit 26: Systems Architecture for Sustainability

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Technical Implementation |

**Description:** Design IT systems aligned with circular economy and low-impact principles

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Pioneer implementation roadmapping for systems architecture for sustainability within professional sustainability practice.

*Framework: GreenComp: 4.2 Envisioning*

**Skills:** Create breakthrough implementation facilitation of systems architecture for sustainability to support organisational sustainability objectives.

*Framework: e-CF: Risk Management - Level 3*

**Competence:** Shape industry practices in solution implementation leadership in systems architecture for sustainability while ensuring professional standards and stakeholder value.

*Framework: e-CF: Product/Service Planning - Level 3*

## Learning Unit 27: Cybersecurity for Sustainable Systems

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Technical Implementation |

**Description:** Implement security frameworks and practices for sustainable digital infrastructure and IoT systems

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Establish consulting best practices in cybersecurity for sustainable systems within professional sustainability practice.

*Framework: GreenComp: 2.2 Critical thinking*

**Skills:** Innovate advisory service delivery for cybersecurity for sustainable systems to support organisational sustainability objectives.

*Framework: e-CF: Product/Service Planning - Level 3*

**Competence:** Influence sector-wide advisory relationship management for cybersecurity for sustainable systems while ensuring professional standards and stakeholder value.

*Framework: e-CF: Architecture Design - Level 3*

## Learning Unit 28: Low-Carbon Cloud Infrastructure

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Technical Implementation |

**Description:** Design and implement energy-efficient cloud computing solutions

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Research client assessment methodologies for low-carbon cloud infrastructure within professional sustainability practice.

*Framework: GreenComp: 3.3 Political agency*

**Skills:** Research and develop client needs analysis for low-carbon cloud infrastructure to support organisational sustainability objectives.

*Framework: e-CF: Architecture Design - Level 3*

**Competence:** Drive systemic change in client engagement projects involving low-carbon cloud infrastructure while ensuring professional standards and stakeholder value.

*Framework: e-CF: Risk Management - Level 3*

## Learning Unit 29: DevOps and Sustainable Deployment

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Technical Implementation |

**Description:** Implement efficient and sustainable software deployment practices

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Advance solution design frameworks in devops and sustainable deployment within professional sustainability practice.

*Framework: GreenComp: 4.2 Envisioning*

**Skills:** Lead transformation solution architecture design in devops and sustainable deployment to support organisational sustainability objectives.

*Framework: e-CF: Risk Management - Level 3*

**Competence:** Lead strategic transformation of consulting delivery responsibilities for devops and sustainable deployment while ensuring professional standards and stakeholder value.

*Framework: e-CF: Product/Service Planning - Level 3*

## Learning Unit 30: Energy-Efficient Software Architecture

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Technical Implementation |

**Description:** Design software architectures optimized for energy efficiency

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Conceptualise implementation roadmapping for energy-efficient software architecture within professional sustainability practice.

*Framework: GreenComp: 2.2 Critical thinking*

**Skills:** Create breakthrough implementation facilitation of energy-efficient software architecture to support organisational sustainability objectives.

*Framework: e-CF: Product/Service Planning - Level 3*

**Competence:** Shape industry practices in solution implementation leadership in energy-efficient software architecture while ensuring professional standards and stakeholder value.

*Framework: e-CF: Architecture Design - Level 3*

## Learning Unit 31: Digital Twin and Smart Systems for Green Transition

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 6 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Technical Implementation |

**Description:** Apply digital twin technology to model and optimize sustainable systems

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Pioneer consulting best practices in digital twin and smart systems for green transition within professional sustainability practice.

*Framework: GreenComp: 3.3 Political agency*

**Skills:** Innovate advisory service delivery for digital twin and smart systems for green transition to support organisational sustainability objectives.

*Framework: e-CF: Architecture Design - Level 3*

**Competence:** Influence sector-wide advisory relationship management for digital twin and smart systems for green transition while ensuring professional standards and stakeholder value.

*Framework: e-CF: Risk Management - Level 3*

## Learning Unit 32: Sustainable IT Strategy

*This learning unit forms part of the Core programme in Level 7 Master's Degree in Advanced Digital Sustainability Consultancy*

|  |  |
| --- | --- |
| **ECTS Credits** | 5 |
| **EQF Level** | 7 (Programme: 7) |
| **Total Workload** | 125 hours |
| **Contact Hours** | 25 hours |
| **Self-Study Hours** | 43 hours |
| **Workplace Hours** | 56 hours |
| **WBL Percentage** | 44.8% |
| **Thematic Area** | Management |

**Description:** Strategic approaches to embedding sustainability in IT operations

### Work-Based Learning Integration

**Employer Partnerships:** Consulting firms, professional services, SMEs

**Mentor Support:** Workplace mentor assigned for practical guidance

**Workplace Activities:**

• Client consulting projects

• Solution implementation support

• Transformation facilitation

### Learning Outcomes

**Knowledge:** Establish client assessment methodologies for sustainable it strategy within professional sustainability practice.

*Framework: GreenComp: 4.2 Envisioning*

**Skills:** Research and develop client needs analysis for sustainable it strategy to support organisational sustainability objectives.

*Framework: e-CF: Risk Management - Level 3*

**Competence:** Drive systemic change in client engagement projects involving sustainable it strategy while ensuring professional standards and stakeholder value.

*Framework: e-CF: Product/Service Planning - Level 3*

Educational Curriculum Modeller (ECM) - Version 2.0 - July 10, 2025