Leeds Trinity University

# PROGRAMME SPECIFICATION

## 1. General information

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|---|---|
| **Awarding body / institution** | **Leeds Trinity University** |
| **Teaching institution** | **Leeds Trinity University** |
| **'Parent' Faculty** | **BCDI** |
| **'Parent' School** | CAWBLS |
| **Professional accreditation body** *(if applicable)* | N/A |
| **Final award** *(eg. BA Hons)* | Postgraduate Diploma<br>Master of Science. |
| **Titles of programmes** | Postgraduate Diploma Professional Practice in Systems Thinking (underpinning the Level 7 Systems Thinking Practitioner Apprenticeship, with external End-Point Assessment)<br>MSc in Systems Thinking (top-up) |
| **Subsidiary award(s)** *(if any)* | Postgraduate Certificate in Systems Thinking. |
| **Honours type** *(Single / Joint / Combined)* | N/A |
| **Duration and mode(s) of study** | PG Diploma: part-time apprenticeship, typically 24 months, followed by optional MSc top-up: typically 6-9 months (part-time, self-funded) |
| **Month/year of approval of programme** | **April 2022** |
| **Start date** (this version) *(month and year)* | **January 2024** |
| **Periodic review next due** *(academic year)* | |
| **HECoS subject code(s)** | 100743 systems thinking (100%) |
| **UCAS course code (available from Admissions)** | **N/a** |
| **SITS route code** *(Course / Pathway / Route)* **(available from Student Administration)** | **PPSYSTK** |
| **Delivery venue(s)** | **Leeds Trinity University** |

## 2. Aims of the programme

| **Rationale and general aims, including what is special about this programme** ***(from the student's and a marketing perspective)*** |
|---|
| The systems thinking practitioner apprenticeship programme is a management study course designed to provide graduates with the necessary knowledge, understanding, skills and strategic thinking required for successful performance in a variety of management and business contexts. |

It is designed to support decision-makers in strategic and leadership roles to understand and address complex, 'wicked' problems through provision of expert systemic analysis, advice and facilitation.

The aim is to assist managers to address complex problems by analysing them from a holistic strategic perspective. These types of issues cannot be addressed by any one organisation or person but require cross-boundary collaboration within and between organisations. The broad purpose of the role of a systems thinking practitioner is to support decision-makers in strategic and leadership roles to understand and address complex issues.

Examples include: providing joined-up health and social services, reducing plastics use in the bottled drinks industry, developing sustainable international food production and supply systems, developing combined diplomatic and military options for unstable regions, and addressing climate change. These problems have no single 'owner' or cause, and no simple solution; they require multi-disciplinary, multi-organisational responses with sensitive attention to diverse viewpoints, behaviour, culture and politics.

The particular complexity of such challenges or opportunities make them unsuitable for more traditional organisational change approaches. They require instead a skillset that includes collaborative enquiry and analysis using systemic models, tools and ways of working, gathering and synthesizing of diverse evidence types, development of options for intervention and investment, facilitation of dialogue, and empathetic navigation of power dynamics and politics.

Although the underlying purpose is to address highly complex problems (involving multiple organisations, sectors, communities and even countries) and develop sustainable solutions, the Systems Thinking Practitioner does not take direct responsibility for this. Instead, they achieve this goal by facilitating collaboration between actors (both organisations and individuals) and by bringing specialist systemic knowledge, skills and mindset to bear to help decision-makers make sense of the challenges and co-develop effective interventions.

The aims of the programme are:

- the development of advanced knowledge of organisations, their management and the changing external context in which they operate;
- the development of abilities (skills) to apply knowledge and understanding of systems thinking to complex issues, both systematically and creatively.
- the development and enhancement of employability through the development of professional skills;
- the enhancement of lifelong learning skills and personal development to enable students to work with self-direction and originality and to contribute to society and economy at large.

The programme takes an integrative approach to developing students' analytical skills and ability to address complex management and business problems and implement appropriate solutions and adopts international perspectives to ensure relevance in today's global economy.

The distinctive features of the Systems Thinking Practitioner Apprenticeship programme includes the following: i) the flexibility of the delivery model for negotiation with employers; ii) the teaching and learning strategy based on the use of block and other suitable modes of teaching; iii) the use of Progress Reviews and the e-portfolio in order to demonstrate that the knowledge and skills required for the award of the apprenticeship are being achieved.

## 3. Student learning outcomes of the programme

**Learning outcomes in terms of:**

- **knowledge and understanding (K)**
- **intellectual / cognitive / 'thinking' skills (I)**
- **practical skills specific to the subject (P)**
- **employability skills (E)**

The 'K1', etc codes are used in section 7b) and module descriptors to refer to each of these learning outcomes.

On successful completion of the programme students will have *demonstrated* the following knowledge, intellectual skills, practical skills, and employability skills. The learning outcomes apply equally to the Postgraduate Diploma and the MSc.

– knowledge and understanding (K)

K1 coherent and detailed subject and/or professional knowledge and understanding, including reference to recent scholarly resources and evidence and the accurate use of scholarly conventions in so doing;

K2 Demonstrate knowledge and understanding of the external environment's pervasive issues – these would include sustainability, globalisation, corporate social responsibility, business ethics, diversity, business innovation, creativity, enterprise development, knowledge management and risk management;

K3 Demonstrate knowledge and understanding of the importance of customer expectations, services and relations, as well orientation to business;

K4 Demonstrate knowledge and understanding of business strategies' formulation within a changing environment and how to meet stakeholder interests

– intellectual / cognitive / 'thinking' skills (I)

I1 secure use of analytical techniques appropriate to the discipline;

I2 critical evaluation of approaches to solving problems in a disciplinary context;

I3 effective and sustained communication of results and arguments;

I4 understanding of the limits of their knowledge and the consequent influence on their analysis;

I5 Collect, order, analyse and evaluate quantitative and qualitative information and data; collect relevant information across a range of areas pertaining to a current situation, analyse that information and synthesise it into an appropriate form in order to evaluate decision alternatives;

– practical skills specific to the subject (P)

P1 discipline related skills

P2 proficiency in the design, conduct and evaluation of research in related contexts;

P3 Employability and entrepreneurial activity

Employability skills

E1 **Self-management** – the ability to plan and manage time; readiness to accept responsibility and improve their own performance based on feedback/reflective learning; the ability to take initiative and be proactive, flexible and resilient;

E2 **Teamworking** – the ability to co-operate with others on a shared task and to recognise and take on appropriate team roles; leading, contributing to discussions and negotiating; contributing to discussions; awareness of interdependence with others;

E3 **Business and sector awareness** – an understanding of the key drivers for business success, including the importance of customer/client satisfaction and innovation; understanding of the market/sector in which an organisation operates; the ability to recognise the external context and pressures on an organisation, including concepts such as value for money, profitability and sustainability;

E4 **Problem-solving** – a capacity for critical reasoning, analysis and synthesis; a capacity for applying knowledge in practice; an ability to retrieve, analyse and evaluate information from different sources;

E5 **Communication** – the ability to present information clearly and appropriately, both orally and in writing, and to tailor messages to specific audiences and purposes;

E6 **Application of numeracy** – a general awareness of mathematics and its application in practical contexts; the ability to carry out arithmetic operations and understand data, to read and interpret graphs and tables and to manage a budget;

E7 **Application of information technology** – the ability to identify the appropriate IT package for a given task; familiarity with word-processing, spreadsheets and file management; the ability to use the internet and email effectively.

E8 **Entrepreneurship/enterprise** – the ability to demonstrate an innovative approach and creativity, to generate ideas and to identify and take opportunities;

E9 **Social, cultural & civic awareness** – embracement of an ethos of community and civic responsibility; an appreciation of diversity and ethical issues; an understanding of cultures and customs in the wider community.

In addition to the above programme learning outcomes, appretnices will have demonstrated the following Knowledge, Skills and Behaviours, as described in the Apprenticeship Standard in irder to achieve the PG diploma and apprenticeship.

**Knowledge**

**K1**: Systems thinking • Understands core systems concepts and laws that underpin and inform the practical methodologies and methods. • Aware of the inter-relationships between Systems Thinking approaches (including methods and methodologies), enabling comparisons of paradigms and underpinning philosophies. • Understands provenance of Systems Thinking methodologies and approaches in context of ‘schools’ of systems thinking and own ontology and epistemology. • Understands essential concepts of systems: complexity, emergence, boundaries, inter-relationships, multiple-perspectives, randomness, non-linear relationships, feedback loops, sensitive dependence on initial conditions, and unpredictability.

**K2**: Systems approaches • Has a sound working knowledge of at least three modelling approaches, as defined in the Systems and Complexity in Organisations (SCiO) professional standard framework, including at least two of the widely-used systems methodologies or approaches: Critical Systems Heuristics, Soft Systems Methodology, System Dynamics, Viable Systems Model. • Understands the applicability, benefits and limits of each systems approach for each situation, and how to integrate

them into a broader methodological design. • Understands relevance of, and knows methods for, determining appropriate scope, scale and systemic levels, for understanding, diagnosing and modelling situations, or for system design.

**K3**: Intervention and engagement • Knows a range of approaches for delivering systems interventions with differing levels of complexity and ambiguity, including double loop learning, change methods, and learning cycles. • Has a working knowledge of at least two methods or methodologies for: intervention planning, information gathering, engagement and change implementation. • Understands strengths and limitations of each approach; knows when and how to use each approach to gain insight to the organisational/ societal/ political context. • Understands the principles of effective relationship building and stakeholder management and their application in a system intervention.

**K4**: Ethics • Working knowledge of ethics as applied to systems interventions generally, and as applied specifically to sector where practitioner is working. • Appreciates the regulatory environment, and the legal, health and safety and compliance requirements of the sector the practitioner is working in.

**K5**: Assessment and evaluation • Understands a range of quantitative and qualitative assessment and evaluation methods for determining the outcomes and impact of interventions, and for evaluating the effectiveness and impact of intervention decisions and processes.

**Skills**

**S1**: Applying systems knowledge • Applies systems laws, concepts and systems thinking approaches in real world situations, either applied directly, or to support systems methodologies.

**S2**: Approach designs • Recognises the nature of complexity most relevant to the situation of interest, and selects one or more appropriate approaches from the range of systems methods or methodologies. Undertakes these across a variety of domains or sectors. • Defines the system of interest, its boundaries, stakeholders and context. Recognises the benefits or limitations of an approach; combines or adapts approaches where needed.

**S3**: Systems modelling • Develops conceptual models of a variety of systems, real world situations and scenarios to provide insights into current or future challenges. • Uses a range of systems models to: explore boundaries and cause and effect, map interconnections and feedback loops, distinguish between differing worldviews or perspectives, and identify patterns, anomalies and emergent properties. Switches between these skills to achieve insight. • Uses models to explore, develop and test a range of possible interventions relevant to the situation of interest, to establish both short and long-term consequences of potential actions, and to reduce unintended consequences.

**S4**: Interpretation • Presents systems models, insights and intervention contributions in a way that is understandable in the real world.

**S5**: Engagement and collaboration • Applies techniques to identify stakeholders and to build and sustain effective relationships with them. Seeks out and engages with marginalised viewpoints; counters the dynamics of marginalisation. • Collaborates with and influences diverse stakeholders, colleagues and clients, identifying and adapting engagement and communication styles. • Works effectively as part of multi-disciplinary groups which have divergent or conflicting world views. • Designs, builds and manages groups to define the desired outcomes and achieve them. Uses tools and techniques to: maximise effective dialogue, to develop a shared understanding of the problem situation and to make decisions.

**S6**: Inquiry, information gathering and analysis • Applies a range of inquiry techniques to gather quantitative and qualitative information, including inputs, transformations, outputs and outcomes. Defines and designs hard and soft measures. • Applies a range of questioning and listening techniques to enquire with stakeholders, and to adapt approaches in real time. • Uncovers hidden or unstated assumptions, to evaluate stated assumptions, and to constructively challenge these where appropriate. • Selects, elicits, manages and interprets appropriate types of data, information and statistics for model building, making the trade-off between value, cost and timeliness. • Weighs balance of evidence; identifies gaps, contradictions, uncertainties and anomalies in data, information and any other evidence.

**S7**: Intervention design • Designs an appropriate intervention strategy for the system of interest, recognising relevant issues.

**S8**: Change implementation • Plans, designs and leads interventions to achieve benefits and learning, based on sound understanding of a range of change methodologies and techniques. • Uses facilitative processes empathetically to engage stakeholders in change processes and decision-making. • Adapts plans in response to new data and insights, perspectives and learning.

**S9**: Developing self • Applies techniques for structured personal reflexive practice, to monitor and develop knowledge, skills and self-awareness.

**S10**: Leading, communicating and influencing • Educates and influences stakeholders to participate effectively in challenging and ambiguous situations, including managing confrontation and conflict constructively. • Creates effective teams. Orients intervention teams to the organisational / social / political and cultural context. Leverages strengths and develops alliances. • Translates systems models and representations into comprehensible language for stakeholders; adapt communication method to audience. • Explains the benefits, principles and skills of systems approaches to stakeholders and participants in an intervention in order to guide them through a systems intervention.

**S11**: Assessment and evaluation • Develops and implements suitable monitoring and evaluation criteria and mechanisms, aware of the influence that different system methods can have in situations.

**Behaviours**

**B1**: Develops self and practice • Engages in structured reflection, monitoring and regulating own thought processes and understanding. Aware of the effect of own and others' biases and of the mirroring effect of clients' problems.

**B2**: Courage and constructive challenge • Prepared to identify and challenge formal and informal centres of power and authority. Willing to constructively challenge assumptions, norms, claims and arguments. • Adjusts the degree of challenge against political considerations, to achieve maximum achievable effect with minimum levels of damage. Balances confidence, challenge and humility during interventions. Fosters reflection in others.

**B3**: Curious and innovative • Interested in creative solutions; explores areas of ambiguity and complexity. Seeks innovative solutions and approaches. Develops and tests multiple hypotheses.

**B4**: Professional • Seeks to balance the needs of different stakeholders irrespective of personal bias. Regularly assesses ethical issues in interventions. Adheres to professional standards.

**B5**: Adaptable and cognitively flexible • Enjoys working on ill-defined and/or unbounded problem situations. Is comfortable with high degrees of uncertainty and with working on a variety of situations of interest.

• Accepts change and innovation; actively considers new approaches to solving problems. • Takes an adaptable approach to inquiring, intervening and stakeholder engagement. • Aware of possible unintended consequences resulting from acting in complex environments. Avoids over-attachment to particular, pre-determined or expected outcomes.

**B6**: Practical • Takes a 'real-world' approach to the application of system models and to the design of interventions. Appreciative of constraints affecting the situation of interest.

**B7**: Resilient • Remains motivated to make a difference when facing conflict between client and stakeholders, or a lack of will to engage with the initiative, or the client's lack of willingness to take a systems approach. • Accepts that "goal posts move", and that unstable conditions are normal.

**B8**: Collaborative • Is participative and inclusive of others; sensitive to relational dynamics; encourages dialogue and co-operation across diverse people and groups; seeks positive win/win outcomes.

**B9**: Open-minded • Embraces and seeks out diversity; enjoys exploration of multiple perspectives.

Once the PG Diploma and apprenticeship have been achieved (the latter through an external end-point assessment), successful candidates have the option to top up to an MSc in Systems Thinking. This involves undertaking a work-based project in Systems Thinking modelling and interventions.The student will bring together all of the learning from the PG Diploma and apprenticeship and apply the learning into their workplace in the form of a complex work-based project. This will involve more detail and complexitiy in order to stretch and challenge each student to consider how systems thinking could be applied into their workplace and will further embed and develop the above learning outcomes.

## 3a External benchmarks

**Statement of congruence with the relevant published subject benchmark statements**
*(including appropriate references to any PSRB, employer or legislative requirements)*

All Leeds Trinity University programmes are congruent with the Framework for HE Qualifications (FHEQ) and, where appropriate, the Qualifications and Credit Framework (QCF) / National Qualification and Credit Framework (NQF).

This programme is fully aligned with the Institute for Apprenticeships and Technical Education's Level 7 Systems Thinking Practitioner Apprenticeship professional standard.

Apprentices may be given the opportunity to undertake the SCIO Systems and Complexity in organisation competency framework and professional qualification. Details of this can be found here https://www.scio.org.uk/page/scio-competency-framework-professional-qualification, however this will not be compulsory as it is not a mandatory requirement of the apprenticeship standard. SCiO has created a framework of competencies for members who are practitioners of systems thinking, based on the Systems Thinking Body of Knowledge (SysBoK). The organisation, SCIO are currently the only EPAO for this qualification. They have explained that if the SysBoK is mapped into the Post Graduate Diploma in Systems Thinking, there will be no further academic work to undertake in order to receive the qualification, however there are fees associated with gaining the SCIO qualification, such as a membership fee and a certification fee.

## 4. Learning outcomes for subsidiary awards

Award of Postgraduate Certificate in Systems Thinking.

The PgCert in Systems Thinking will be awarded in those circumstances where a student successfully completes 60 credits and leaves the programme. Students will have had specific opportunities to display transferable, employable skills.

## 5. Content

**Summary of content by theme**
(providing a 'vertical' view through the programme)

The Systems Thinking Apprenticeship programme offers the essential knowledge and understanding, skills and experience required for students to operate effectively and successfully in a complex business environment. Core areas of the programme focus on contemporary systems thinking concepts, the understanding of the external context and how organisations can work collaboratively to achieve progress and results.

The core of the programme is generalist, providing a broad, analytical and integrated study of Systems Thinking, and covers topics such as;

- Systems thinking application in the workplace
- Personal development, leadership and communication
- Systems thinking approaches and modelling
- Ethics in systems thinking
- Change and intervention design

Apprentices will also study work based learning modules to assist them with understanding the importance of the application of the knowledge learnt on the modules into their role in the workplace. Work based learning modules studied also include an introduction to level 7 study. This covers topics such as critical thinking, academic writing at level 7, academic reading at level 7 and action research. The action research topic is covered in the work based project module. This module will allow apprentices to develop business research and client management skills and to apply and test their theoretical understanding of topics applied in their workplace and investigate and provide recommendations for resolutions to systems thinking issues. They will achieve this by using robust and academically grounded research methodologies.

The apprentices will undertake an End Point Assessment which includes two assessment methods. Firstly, there is a Work-based Project Report with Presentation.

Secondly, there is a professional discussion underpinned by a portfolio of evidence. Specific details of the end point assessment plan can be found in the Systems Thinking Practitioner Apprenticeship Assessment Plan st0787_systems-thinking-practitioner_l7_forpublication7420.pdf (instituteforapprenticeships.org).

## 6. Structure

**Postgraduate Diploma in in Professional Practice in Systems Thinking (Systems Thinking Practitioner Apprenticeship)**

**Duration:** 2 years part-time
**Total credit rating:** 120 (60 ECTS)

**Year 1**

| **Module** | **Apprentices are required to take:** | | |
|---|---|---|---|
| MBE7021 | Introduction to Systems Thinking Practitioner Apprenticeship | Term 1 | 10 credits |
| MBE7212 | Systems thinking approaches and modelling | Term 1-2 | 20 credits |
| MBE7031 | Ethics in systems thinking | Term 2-3 | 10 credits |
| MBE7222 | Change and intervention design | Term 3-4 | 20 credits |

**Year 2**

| **Module** | **Apprentices are required to take:** | | |
|---|---|---|---|
| *MBE7222* | *Change and intervention design (cont'd)* | *Term 3-4* | *20 credits* |
| MBE7232 | Systems thinking application in the workplace | Term 4 | 20 credits |
| MBE7041 | Personal development, leadership and communication | Term 4-5 | 10 credits |
| MBE7242 | Work based project: Systems Thinking. Inquiry, information gathering and analysis | Term 5 | 20 credits |
| MBE7051 | Portfolio development | Term 5 | 10 credits |
| **Total for the Postgraduate Diploma** | | | **120 credits** |

The remainnder of Term 5 and Term 6 will incorporate End Point Assessment (EPA) **Gateway** work, which is not credit bearing - this involves agreement between the workplace supervisors, typically the Apprentices line manager although in the case of CEO's this responsibility might lie with an HR Director/Shareholder and a representative from LTU to agree that all necessary requirements are met for EPA.

**Gateway and End Point Assessment**

- Assessment method 1: Work-based project report with a presentation
- Assessment method 2: Professional discussion underpinned by a portfolio of evidence.

**MSc in Systems Thinking (top-up)** (optional progression and registration)

**Duration:** 6-9 months part-time
**Total credit rating:** 60 (30 ECTS)

**Year 3**

| **Module** | **Students are required to take:** | | |
|---|---|---|---|
| MBE7026 | Work-based project: Intervention design | Term 3 | 60 credits |
| **Total credits to achieve an MSc** | | | **180 credits** |

The programme is primarily structured around the Systems Thinking level 7 apprenticeship with the option to top up to an MSc in Systems Thinking. If the apprentice chooses to top -up and undertake an additional 60 credit module to allow them to gain 180 postgraduate credits, this will be undertaken after the Gateway and End Point Assessment have taken place.

## 7. Learning, teaching and assessment

**7a) Statement of the strategy for learning, teaching and assessment for the programme**

Aligned to the University's Learning, Teaching and Academic Experience Strategy, at postgraduate level and through work-based learning programmes, we work to build, apply and exchange knowledge, expertise and skills in a range of specialist fields. We have built our strategy around five core themes:

STUDENT INVOLVEMENT AND ENGAGEMENT

We will put apprentices at the centre of the programme and ensure that we discuss with them the content of the programme and how it is shaped.

INCLUSION

Equality, diversity and inclusion is at the centre of the programme and is discussed at the outset as part of the induction and throughout the programme in the tripartite progress review meetings. The specific KSBs for the programme also include much information on ethics and within this, inclusion is discussedand where the learning experience is enriched for all.

INTEGRATED PROGRAMME AND ASSESSMENT EXPERIENCE

All of the modules are discussed holistically from the outset of the programme to ensure that the apprentices understand how they link together. The knowledge skills and behaviours of the apprenticeship must be demonstrated within the workplace in order for the apprentice to achieve a pass in the end point assessment. This involves them undertaking tasks in the workplace which demonstrate not only progression in their own knowledge, skills and behaviours, but also benefits and impact on the business that they work for.

DIGITAL LITERACY & SKILLS

This area is addressed within the MSc part of the course where learners will be introduced to the importance of digital skills and how they can develop their own and other's digital skills. This is also addressed throughout the PG diploma and apprenticeship where the apprentice has the opportunity to be creative with the way in which they present their assessments, particularly the portfolio of evidence which is produced as part of the end point assessment.

EMPLOYABILITY AND ENTERPRISE

A key strength of this programme has been the engagement with employers on how the knowledge, skills and behaviours of the apprenticeship and subsequent learning outcomes for the 60 credit top up can be developed throughout the programme in a way that meets the requirements of the discipline. We are committed to working continuously with employers to ensure that we are improving the provision regularly to meet industry demands.

The entrants to the PG Diploma come from a broad mix of disciplines and backgrounds, which facilitates a multi-perspective, interactive, learning process. The programme attempts to maximise available opportunities for participants to reflect on their knowledge, experience and practice, particularly through a process of peer interaction and teamwork. The integration of UK and international case studies in each module brings an international and cross-cultural dimension into the learning. Additional case studies relevant to the apprentices' own sectors of work will also be included in order to help them to be able to apply the learning from the modules directly into the context of their own organisation.

Assessment includes assessing the rigour of academic arguments as well as the application of theory. Assessment also requires participants to demonstrate a practical and integrative approach to a problem area or issue. A range of assessment methods is deployed to facilitate this and includes essays, case study and market analysis reports, individual and team presentations, a research project proposal, a personal portfolio and a work-based project.

An e-portfolio is used throughout the programme to collect the evidence of how an apprentice has achieved the knowledge, skills and behaviours described in the Apprenticeship Standard. These evidences will also be discussed during progress reviews in terms of their match against professional standard requirements and in preparation for the End Point Assessment.

The programme teaching sessions will be delivered in blocks of 2-3 days at a time in order to ensure that the course in accessible for employees. The employer must ensure that the apprentice is provided with off the job hours in order to develop knowledge, skills and behaviours (KSBs) of the apprenticeship. Throughout the duration of the programme up until the apprentice reaches Gateway, the apprentice, the employer and a member of the academic team for the programme must participate in tripartite progress reviews at regular intervals, in accordance with apprenticeship funding rules. These meetings will cover the apprentice's progress towards the knowledge, skills and behaviours of the apprenticeship. The discussion will cover additional topics such as equality, diversity and inclusion, wellbeing, attendance and any support the apprentice requires. Throughout the programme there will be a series of masterclasses delivered by industry experts to reinforce the teaching. The topics delivered in the masterclasses will align to the Level 7 Systems Thinking Apprenticeship knowledge, skills and behaviours. The masterclasses will include examples of real world application of systems thinking to allow the apprentices to consolidate their learning from the modules and apply systems thinking in situations in their workplace.

After the apprentice completes the PG Diploma and apprenticeship there is an option to progress to a Master of Science to develop further skills on intervention design and implementation. The mandatory apprenticeship employer support requirements are no longer applicable, although MSc students will be supported by regular tutorials with a member of the academic team in which they can discuss the progress of their final project.

| **7b) Programme learning outcomes covered** | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Assessed learning outcomes of the programme** | | | | | | | | | | | | **Skills development** | | | | | | | | |
| *Adjust LO codes as necessary.* ➔ *These must match module descriptors.* | **K1** | **K2** | **K3** | **K4** | **I1** | **I2** | **I3** | **I4** | **I5** | **P1** | **P2** | **P3** | **E1** | **E2** | **E3** | **E4** | **E5** | **E6** | **E7** | **E8** | **E9** |
| Lighter shading indicates modules that are not core, ie. not all students on this programme will undertake these. | Subject Knowledge | External environment | Customer expectations | Business strategy | Analytical skills | Problem solving | Communication of results | Limits of knowledge | Data collection | Application of research skills | Design and deliver interventions | Employability and entrepreneurial activity | Self-management | Team-working | Business & sector | Problem-solving | Communication | Application of numeracy | Application of IT | Entrepreneurship | Social, cultural and civic awareness |
| Introduction to the Systems Thinking Practitioner Apprenticeship | ■ | ■ | | ■ | | | | | | | | | ■ | ■ | ■ | | ■ | | ■ | | ■ |
| Systems thinking application in the workplace | ■ | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | ■ |
| Personal development, leadership and communication | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Systems thinking approaches and modelling | ■ | | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Ethics in systems thinking | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | | ■ |
| Change and intervention design | ■ | ■ | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | | | | |
| Work based project | ■ | ■ | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | | | |
| Portfolio development | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| MSc top up | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |

## 8. Entry requirements

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|---|---|
| **Do the University's standard entry requirements apply (as outlined within the University's Admissions Policy)?** | Yes |
| **Detail of any deviation from and/or addition to the University's standard entry requirements (if applicable)** | An assessment of the applicant's job role to support learning on the apprenticeship and a 'skills' scan' of existing knowledge and experience prior to entry.<br><br>Successful completion of the University's Postgraduate Diploma and Systems Thinking Practitioner Apprenticeship confers eligibility to enter the MSc top-up. Applicants to the MSc top-up who hold a Systems Thinking Practitioner Apprenticeship delivered by another organisation would be subject to the University's Recognition of Prior Learning Procedure (available from the University's website). |

## 9. Progression, classification and award requirements

Details of requirements for student progression between levels and receipt of the award(s)
(A certain level of attainment which must be achieved in a specific module; any modules exempted from condonement, any deviation from the standard institutional stipulations for award classification, e.g. exclusion of Level 4 module marks from Foundation Degree classification)

There is a statutory requirement to manage and monitor students' progression during their apprenticeship programme. In oder to satisfy such a requirement, Progress Reviews should be normally conducted every 3 month (7 in total) to track the achivements and evidence of fulfilling the requirements of the professional standard (Systems Thinking Practitioner), which is recorded with the help of an e-portfolio system.

The following University Taught Programme Academic Regulations apply:

- General Academic Regulations
- Programme Regulations for Taught Postgraduate Degrees
- Additional Regulations for Higher and Degree Apprenticeships

Students who successfully complete 120 credits are eligible for the award of postgraduate diploma. The award will be classified as Pass, Merit or Distinction. Students who are unable to complete the programme may be eligible for a fallback award of Postgraduate Certificate, under University regulations, subject to successul completion of 60-credits.

In order to complete the apprenticeship students must complete the 120-credit Postgraduate Diploma and the Gateway requirements set out in the IfATE Apprenticeship Standard Assessment Plan. The Systems Thinking Practitioner Apprenticeship will be graded Fail, Pass or Distintion by the End-Point Assessment Organisation, in accordance with the critera described in the IfATE Apprenticeship Standard Assessment Plan.

Apprentices have the option to top-up to an MSc in Sytems Thinking by undertaking an additional 60 credit module after they have completed the apprenticeship.

Learners who go on to complete the MSc top-up will be graded as Fail, Pass, Merit or Distinction calculated on the 180-credits of the programme. They will be required to inform the University of their intention to progress to the MSc by a specified date.

## 10. Prerequisites

| Details of modules students must study and achieve credit for before enrolling on a module at a higher level, or attaining their final programme award<br>*Include the rationale which justifies imposition of the prerequisite(s) and the mark/grade required.* |
|---|
| There are no prerequisites for the PG Diploma.<br><br>In order to undertake the MSc, the student must have completed the PG Diploma in Systems Thinking |

## 11. Additional support needs

| Arrangements made to accommodate students with additional support needs and any unavoidable restrictions on their participation in the programme/scheme |
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| Students with disabilities or other support needs are welcome and are expected to be able to participate fully in this programme. Arrangements will be made, via the normal University support systems, to accommodate students with additional support needs wherever possible, with reasonable adjustments made to accommodate individual needs. |