

**University of Bedfordshire**

**Level 7 Systems Thinking Practitioner  
Apprenticeship**

**Information for Nottingham and  
Nottinghamshire CCGs**

**May 2021**



**SCiO**

## **1. Background**

The University of Bedfordshire is an experienced apprenticeship training provider with considerable experience of delivering training to NHS Trusts across the East and South of England. We currently have 64 training contracts in place with 45 clients. Client include 10 NHS trusts for the delivery of nine apprenticeships: Registered Nurse, Nursing Associate, Midwife, Advanced Clinical Practitioner, Healthcare Assistant Practitioner, Data Analyst, Senior Leader, Associate Project Manager and Academic Professional.

In 2020 the University began work with the Systems Thinking Professional Body known as SCiO (Systems and Complexity in Organisations). Members of SCiO are experienced experts with long experience of consultancy in Systems Thinking and a proven record of problem solving with large organisations in the public sector and private industry.

In February 2021 we jointly took part in the NHS Project Futures procurement competition organised by the HEE and Salisbury Procurement. The University and SCiO were successful in tendering for preferred provider status to deliver the Systems Thinking Practitioner Apprenticeship (STPA).

Our training delivery will be in close collaboration with SCiO, who will add proven expertise in Systems Thinking to our strong apprenticeship training infrastructure.

As former Chair of the STPA Trailblazer, John Rogers has worked very closely with the University during the past 10 months to design the apprenticeship training programme now on offer and will form key member of the training delivery team.

## **2. What is the STPA?**

The Systems Thinking Practitioner Apprenticeship is a newly approved, challenging and exciting apprenticeship at post-graduate level. The job role focuses on understanding and addressing complex problems through providing expert systemic analysis, advice and facilitation. This role is suitable for people working with senior decision-makers, on strategic development, and on complex programmes; it is also aimed at people who are on track to lead in those situations.

The occupation is found in arenas where complex problems exist that cannot be addressed by any one organisation or person, but which require cross-boundary collaboration within and between organisations. Examples include the health and care sector, central and local government, multilaterals, defence, education and research; globalised corporations with complex supply chains, NGOs and social enterprises addressing social challenges.

Typical job titles include: System Change Lead; Systems Thinking Practitioner; Transformation Lead.

The apprenticeship is based on full time employment, combining employer-based learning experience with paid off-the-job education and training. The apprentice's employer commits to

providing 20% of normal contracted hours, one day per week or the equivalent, as time for off-the-job learning. Fees are paid by the employer's apprenticeship levy.

### **3. Entry requirements**

The formal entry requirements, as with any apprenticeship, are GCSE pass grades in English and mathematics. This apprenticeship is at post-graduate level and has demanding content with a 30-month programme of study and preparation for end point assessment. The University of Bedfordshire will work with each employer to confirm that this is likely to be a suitable apprenticeship given employees' work context and experience. Most candidates will be expected to have a first degree or professional qualification, or significant equivalent relevant experience – including project or change management, for example.

### **4. Is there professional recognition for completing the apprenticeship?**

The apprenticeship aligns with and qualifies successful apprentices for the SCiO professional recognition: Advanced Practitioner, Systems and Complexity in Organisations.

### **5. When does it start and how long is it?**

**The programme is currently being finalised and approved in the University, with the intention of starting delivery from February 2022<sup>1</sup>.** Training lasts 30 months, followed by the final assessment stage lasting up to a further three months, known in apprenticeships as 'end point assessment' and carried out by an independent body.

### **6. Who delivers the apprenticeship training?**

The University of Bedfordshire has been selected by HEE to deliver the programme in collaboration with SCiO (Systems and Complexity in Organisations). Members of SCiO are experienced experts with long experience of consultancy in Systems Thinking and a proven record of problem solving with large organisations in the public sector and private industry. Full profiles of delivery staff are available for information of employers and prospective participants prior to contract.

### **7. What knowledge skills and behaviours are taught through the apprenticeship?**

The knowledge, skills and behaviours (KSBs) cover comprehensively the major systems thinking approaches and the intervention skills to apply them successfully and achieve improvement in complex situations and service ecosystems. At the same time, the programme explains and demonstrates the behaviours and activities necessary to be an effective practitioner.

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<sup>1</sup> Delivery start date assumes formal approval of the apprenticeship training programme by the University of Bedfordshire (as for all new courses) and conclusion of formalities that will engage SCiO delivery tutors by the University, as the main provider. In the event of any unforeseen delay, employers will be invited to start their apprentices at the next semester start.

The KSBs are taught holistically in the following subject areas: core systems concepts; modelling approaches; information; leading, communicating and influencing; stakeholders; ethics and power; creativity and learning; intervention and change; teamworking.

These are all developed through application in the workplace and organisation context.

## **8. How is the training delivered?**

Training closely links theory to experience in the workplace, through projects and assignments that are designed to draw on real issues in the apprentice's employment context. The result is a highly effective blend of theoretical knowledge and the development of the practical skills needed to help resolve complex problems in real NHS settings.

Training consists of workshops usually delivered weekly and taught by SCiO consultants, and Practitioner Apprenticeship Learning Sets – where small groups of apprentices share experience and practice key elements of the knowledge, skills and behaviours required to complete the apprenticeship successfully. Learning Sets will offer apprentices frequent opportunities to network in groups of between eight and 10 people. Over the duration of the apprenticeship, apprentices write assignments and prepare a portfolio of evidence to demonstrate the acquisition and application of new knowledge and skills.

There is also the possibility of block delivery, which can be discussed with employers at the pre-contract stage.

Our intention, subject to employers' requirements, is to deliver training predominantly or exclusively on-line, using the University's Blackboard industry-standard virtual learning environment (VLE) and portfolio hosting platform Pebble Pad. However, there will be the option of several in-person meetings for all Nottinghamshire apprentices over the period of the apprenticeship, to facilitate and encourage networking and relationship building among apprentices and their employer mentors and other stakeholders.

## **9. Structure of the Programme**

- The training and assessment required by the apprenticeship standard comprises a 30 month programme. Our design consists of 10 x 12-13 week 'quarters'. The first quarter forms a foundations for the whole programme.
- Several intakes to the programme are possible each year, each starting with the Foundations quarter, then progressing to the next scheduled quarter and joining existing apprentices.
- This 'carousel' design provides flexibility for new apprentices to join with others throughout the first year with the minimum of delay
- At the end of the 30 month training period, the apprentices pass through the 'gateway' to End Point Assessment, which makes up the final quarter of the apprenticeship. This includes the preparation of a project report based on work carried out during the training period

## **10.Detail of Content**

The course design closely reflects the approved apprenticeship standard. A full description of contents of all quarters will be provided at the pre-contract discussion stage with employers or

employer representatives. To illustrate the programme, a detailed outline of the Foundations quarter and one other quarter are appended to this proposal.

### **11.Cohort Size**

We propose a minimum group size of 12 apprentices at entry point and a maximum group size of between 20-24 subject to discussion with employers. The cohort can be made of employees from one organisation and may be 'closed' to that employer, if that is the employer's preference or, more likely, the group will combine employees from several organisations.

### **12.Fee and what is included**

We will charge the fee approved by IFATE, of £18K per apprentice. This fee includes all training and assessment in the 30 month training period and the End Point Assessment.

### **13.Option of Master's Level Qualification**

The procedure for approval of the programme by the University will include the option for the University to recognise successful completion of the apprenticeship for the award of 120 credits of 'prior learning' at post-graduate level. This option will allow those interested to undertake an additional unit worth 60 credits to qualify for the award of a Master's Degree in Systems Thinking.

### **14.Contacts**

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#### **In relation to Systems Thinking and SCiO**

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### Unit Titles and Sample Unit Descriptions

#### Unit Titles for the 30 Month Training Programme

##### **Systems Approaches**

Viable System Model (VSM)

Patterns of Strategy (PoS)

System Dynamics (SD)

Soft Systems Methodology (SSM)

Critical System Heuristics (CSH)

Other systems approaches

Bubble / Mosaic transformation

INFORMED

Confrontation Analysis (CONAN)

[NB these four comprise one systems approaches module]

System Laws

##### **Intervention methods modules**

Inquiry, Information, Analysis, Assessment & Evaluation

Intervention Approaches & Ethics

Change Implementation

Communication & collaboration

## **Foundations Quarter**

This introductory module will provide a solid grounding in a broad range of systems and intervention methods.

The module will cover Introduction to:

- Viable System Model
- Soft Systems methodology
- System Dynamics
- Patterns of Strategy
- Critical System Heuristics
- Inquiry, information & analysis
- Intervention approaches

Assessment: a 1,000-2,000 word reflective practice report on using systems approaches.

## **Viabale System Model (VSM)**

### **VSM 1 (Foundation Quarter; 1 day)**

This module will provide learners with an overview of the Viabale System Model. The module will cover:

- Overview of VSM
- Basic modelling using VSM

### **VSM 2 (Year 1; 2 days)**

This module will provide learners with a working knowledge of the Viabale System Model and the ability to use it for understanding, diagnosing and designing organisational systems the level of knowledge and skill required for a simple pass.

If you don't know how to design an organisation to deliver your strategy, or how structural change happens in organisations, how effective can you be in implementing your strategy? For senior managers and aspiring senior managers, the organisation is the principal tool at their disposal. So, understanding how organisations function as systems is a critically important skill. This module will provide students with practical skills in using VSM to diagnose organisational issues and to design solutions.

The module will cover:

- Diagnosing systems using VSM
- System archetypes
- System development using VSM
- System design using VSM

Assessment: a 1,000 -2,000 word worked model of an organisation with either a diagnosis, or design/redesign.

### **VSM 3 (Year 2; 2 days)**

This module will cover the knowledge and skills required for a distinction in the use of VSM. It also covers the application of VSM to different sectors and at different scales from a single team to a multi-organisation system of any size. The unit will also link to the Systems Laws

and Concepts which are embodied in the VSM and ways to integrate VSM with other approaches. The module will cover:

- Modelling complexity using variety balances
- Organisational dynamics in VSM
- Underlying systems concepts in VSM
- Working with multi-organisational systems
- Using VSM with other systems approaches

Assessment: a 1,000-2,000 word worked model of either a) a multi-organisational system with either a diagnosis, or design/redesign or b) a set of complexity balances and their implications.

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