

Example of Higher/Degree Level Apprenticeships

The Systems Engineering Masters Apprenticeship Programme (SEMAP) aims to create rounded professional Systems Engineers who understand and can practise Systems Engineering. Primarily focussed on the Defence sector, successful Apprentices will be able to undertake INCOSE1 Practitioner level Systems Engineering roles across Defence projects, and also in other sectors since many of the core skills will be transferable.

The Apprenticeship combines academic learning and vocational learning to develop practitioner level systems engineers. The academic and vocational elements complement each other and provide a base from which each Apprentice can develop, refine and apply their knowledge, skills and behaviours.

Each apprentice will undertake a tailored programme of Level 7 academic tuition and vocational learning in their workplace. This programme will reflect the aspirations of the apprentice and the needs of the employer, around the relative emphasis given to different systems engineering competencies and any specialist learning required, for example in particular domains.

Academic tuition should provide the underpinning knowledge and skills required to complete the Apprenticeship, but alone will not provide the Practitioner level standard required.

Vocational based activities will provide the mechanism for an Apprentice to build on the underpinning academic knowledge and skills and develop and refine them through applying them on real work problems and projects. It is this experience and application that will develop practitioner level systems engineers.

Successful Apprentices will receive:

- An Apprenticeship certificate showing achievement of the Apprenticeship standard as an INCOSE Systems Engineering Practitioner, recognised by many of the largest organisations within the sector.
- An academic award – typically a Post Graduate Diploma in Systems Engineering, but potentially a Post Graduate Certificate or MSc.
- An evidence portfolio detailing the knowledge, skills and behaviours attained.

The time required to complete this Apprenticeship will be determined by the academic award and the time required to build up the supporting evidence, however it will typically take three-five years.

Approximate costs:

Cost of post graduate diploma approx. £14,000

Cost of employer mentor and assessment

Cost of end point assessment – approx. £3,000

Government funding maximum: £18,000

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