

**RISK AND SAFETY MANAGEMENT PROFESSIONAL
(DEGREE) APPRENTICESHIP**

Employer Occupational Brief

Why have an apprenticeship in risk and safety management?

- More punitive legislation, use of novel technology and high profile major accidents ensure that risk and safety management is a growing profession
- There is a shortage of skilled risk and safety professionals (See <http://www.visabureau.com/uk/shortage-occupations-list.aspx>)
- The ageing workforce will only exacerbate this shortage as 'baby boomers' retire in the next five to ten years
- There is increasing effort by professional institutions to recognise risk and safety management as a stand alone discipline, e.g. IChemE's professional registration in process safety (2012)
- As well as recruiting graduates into the profession, upskilling experienced discipline engineers via a master's qualification helps fill the skills shortage

Why include an MSc in risk and safety management?

- Demonstrates learning with the ability to think creatively in order to solve complex risk and safety problems
- Ensures that academic learning has been applied to industry and the situations encountered in the real professional world
- Creates well-rounded professionals capable of working competitively in their chosen industry but also with competencies that are transferrable across high hazard sectors

Benefits to the Employer

- Apprentices develop the relevant skills
- Apprenticeships can improve employee satisfaction and reduce staff turnover
- Knowledge, Skills and Behaviours are transferable across industry sectors
- Funding is available from the Government for apprenticeship training and assessment

Benefits to the Apprentice

- Gain an MSc qualification
- On and off-the-job vocational training
- Receive a salary
- No tuition fees
- Develop Portfolio of Evidence which can be used towards professional registration
- Knowledge, Skills and Behaviours are transferable across industry sectors

On-programme Academic Education and Assessment

Academic Qualification

Apprentices must complete a Master of Science (MSc) in risk and safety management or an equivalent topic (e.g. process safety, loss prevention, safety and reliability engineering). Where appropriate, accreditation of prior learning is allowable and can contribute to this requirement.

The rest of this section is recommended, rather than mandatory.

Academic learning programmes will normally comprise core modules and elective pathways. Core modules ensure each Apprentice is afforded the same fundamental knowledge, skills

and behavioural information necessary for a risk and safety management practitioner. Elective pathways (optional modules) allow each Apprentice to specialise (if they so wish) in their industry domain and/or a certain area or field. The MSc project/dissertation also provides the opportunity for each Apprentice to undertake an in-depth study of a specific area of interest.

Any MSc degree course which includes the following topics might be considered as meeting the qualifications requirements of the Apprenticeship:

- Risk management principles and practice
 - Fundamental principles and practice of risk management
 - Framework for embedding risk and safety management into the overall management system
 - Practical application of the risk management process
- Risk assessment techniques
 - Selection of risk assessment techniques appropriate to the context
 - Utilisation of those techniques
 - Preferred risk assessment methods for the industry
 - Preferred levels of assessment for the industry
- Domain knowledge
 - The industry, its structure, purposes and operations
 - How risk and safety management is used in the industry
 - How risk and safety management interacts with other disciplines within operating companies, their supply chain and other dependent sectors
- Specialist subjects to meet the needs of employers in the industry
- Research project, which achieves the following:
 - Advances the intellectual development of Apprentices through the application of rigorous analysis to approach issues related to the taught part of the course
 - Promotes in-depth knowledge of particular topics within the range of subjects taught
 - Encourages, through the writing of the dissertation, a range of transferable subject specific and core skills that will be of value to Apprentices in future research and in their professional careers in industry.

Some institutions award interim qualifications (Postgraduate Certificate, Postgraduate Diploma) on completion of some of the modules.

Delivery of Academic Learning

Academic tuition will be delivered by HEIs in the UK. They will be responsible for providing the academic tuition, support and assessment throughout the academic learning.

Academic tuition may be by face-to-face learning (classroom-based in block release format), distance learning (where tuition is provided electronically) or blended learning (a combination of the two). The MSc will be reviewed by the Employer to ensure that the modules' learning objectives map to those of the overall apprenticeship.

Academic teachers will provide tuition and mentoring to the Apprentice throughout the academic phase of the scheme. The mentoring will comprise feedback on the Apprentice's performance in the academic assessments. Academic mentoring is especially important for the MSc project/dissertation.

Academic Assessment (Progressive Assessment)

Each academic module will be assessed to measure understanding and application of the learning objectives.

Academic modules may be assessed by written assignment, group assessment, presentation or examination, or a combination. The assessment will encourage reflection and application in context, using case study examples.

Depending on the HEI and type of delivery, formal assessments such as essay assignments, practical assignments, or dissertation style research may be carried out in the Apprentice's own organisation. Written and oral examinations, problem solving exercises and presentations may require the Apprentice to be assessed at the HEI's site, and will be regulated in accordance with the UK Quality Code for Higher Education.

Academic Grading

The academic award will be assessed and awarded independently by the HEI, in line with the individual academic institution's regulations.

On-Programme Vocational Learning and Assessment

Competency Profile

At the beginning of the apprenticeship, the Apprentice, in conjunction with their Employer Mentor/Representative, will develop a personalised practitioner level Competency Profile, mapped against the knowledge, skills and behaviours (KSBs) defined in the Risk and Safety Management Standard.

This profile will be used to define what the Apprentice must achieve to complete the apprenticeship and meet the Standard. Each Apprentice will be able to tailor their profile to reflect their own areas of interest and the type of work their employer conducts in its industry domain.

Development Plan

The Apprentice will maintain a Development Plan to define the learning objectives of each vocational work assignment. Defining these objectives will help focus the Apprentice on particular tasks which will result in the KSBs being developed, demonstrated and recorded. The Employer Mentor/Representative will guide and advise the Apprentice in creating their Development Plan.

The Development Plan will be a live document which the Apprentice will update throughout the apprenticeship. It will be used in conjunction with the Apprentice's Logbook, which is used to record evidence of development.

Vocational Assignments

Within the Development Plan, the Apprentice will define, with the help of their Employer Mentor/Representative, vocational assignments which are real projects with targeted aims. Multiple vocational assignments will take place throughout the apprenticeship to allow the Apprentice to acquire the broad KSBs required to become a rounded risk and safety management practitioner.

Logbook

Each Apprentice will gather evidence of each of their vocational assignments during the apprenticeship and map this to their Competency Profile, reflecting on what they have achieved and what KSBs they have developed and demonstrated. This is recorded in a Logbook which can be presented in any format or media.

Vocational Review and Mentoring

There will be no formal on-programme assessments of the vocational aspect of this apprenticeship, until the EPA. However, regular reviews of the Apprentice's progress should be made by the Employer Mentor/Representative, tracking attainment of the competency levels defined in the Apprentice's Competency Profile and reviewing reflectively on the Development Plan and feedback received.

The review frequency will vary and may typically take place after each work assignment.

Employer Responsibilities

The Employer is responsible for the following, in order to support the Apprentice:

- Fund the apprenticeship (taking into account the funding provided by the UK Government)
- Select the MSc programme and provider (HEI)
- Review the MSc to ensure that the modules' learning objectives map to those of the overall apprenticeship
- Provide a suitable Employer Mentor with the capability and time to carry out on-the-job mentoring, including:
 - Assist in planning, monitoring and reviewing the Apprentice's vocational work
 - Provide mentoring throughout the apprenticeship (behavioural, technical and developmental)
 - Help the Apprentice map their development against their Competency Profile
 - Review the compiled evidence (Competency Profile, Logbook and Development Plan) and Case Study Project to make certain they meet the Standard required
 - Be suitably qualified, versed and experienced in risk and safety management
 - Engage with the Apprentice to ensure that all work is sanitised appropriately.
- Provide a suitable Employer Representative who can:
 - Review the compiled evidence and Case Study Project to make certain the Apprentice meets the Standard required
 - Be suitably qualified and experienced in risk and safety management
 - Be a participant on the EPA, but only in an observation/advisory role to provide context within the employer and the industrial sector (optional).
- Monitor, assess and record behaviour and performance in the workplace
- Provide the opportunity for the Apprentice to practise the KSBs required by the apprenticeship
- Provide information into the review of learning and behavioural evidence both during and at the end of the apprenticeship
- Provide any training required to meet the KSBs as defined in the Standard.

Recommended Information Flow

