

Risk and Safety Management Professional (Degree) Apprenticeship

OCCUPATION AND OCCUPATIONAL PROFILE

Risk and Safety Management Professional: In highly regulated industries where the impact of loss is high, risk and safety management professionals work collaboratively with other disciplines. They establish the context of the problem, identify all hazards including those with the potential to cause a major accident, analyse the associated risk, evaluate the risk against acceptance criteria and propose ways of treating the risk such that it is eliminated or reduced and maintained as low as reasonably practicable. They are required to address means of monitoring and reviewing the actual risk and safety performance, and communicating and consulting risk issues with all relevant stakeholders.

Whilst the emphasis on specific aspects of the risk profile and use of specific techniques may differ slightly between industries, the overriding risk management process is the same for all. Whether practitioners work in 'systems' sectors such as nuclear, defence, rail and aviation, for example, or in 'process' industries such as oil and gas, petrochemical and chemical, the risk management processes, safety management systems, and organisational and human factors are all fundamentally the same. This apprenticeship creates rounded professionals capable of working competently in their chosen industry but with the risk and safety management knowledge, skills and behaviours that are transferable across all highly regulated industries.

Such professionals typically work in the fields of technical safety, safety and reliability, nuclear safety, chemical and process safety, rail safety, product safety and air safety.

ENTRY REQUIREMENTS: Whilst any entry requirements will be a matter for individual employers, typically an apprentice might be expected to have already achieved a relevant science, technology, engineering or mathematics (STEM) bachelor degree or equivalent.

KNOWLEDGE, SKILLS AND BEHAVIOURS:

Knowledge

Risk Management Principles and Practice	Understand the principles and practice of risk management, including the framework for embedding risk and safety management into the overall management system, and the application of the risk management process.
Risk Assessment Techniques	Knowledge of the selection and utilisation of systematic techniques for risk assessment that are appropriate to the context. Understand the preferred methods and levels of assessment for particular application in the chosen industrial sector.
Domain	Understand the chosen industrial sector, its structure, purposes and operations. Understand how risk and safety management is used and how it interacts with other disciplines within operating companies, their supply chain and other dependent sectors.
Specialisms	Knowledge of particular specialist subjects and domains as required to meet employers' needs, for example in relation to emerging technologies or current key focus areas.

Skills

Risk and Safety Management	Apply knowledge and understanding of risk and safety management to practical situations through the full lifecycle. Ability to recognise the context and accurately select and apply systematic methods of identifying hazards, analysing and evaluating associated risks, and proposing proportionate solutions to treat problems. Aply handle the wider implications of work as a risk and safety practitioner such as application of relevant regulations and emergency planning.
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Lifecycle View	Apply approaches to developing risk and safety solutions that will be appropriate throughout the lifecycle of the product or facility. Identify the problems and stakeholder needs from the concept and feasibility phase, through design, operation, modification, decommissioning, demolition and disposal.
Leadership	Critically observe risk and safety leadership behaviours of self and others and reflect on their effectiveness, noting the importance of influence as well as authority.
Effective Communication	Effective written and oral communication, including influencing, negotiating, facilitating and resolving conflicts in risk and safety management with relevant stakeholders. Ability to construct and support risk and safety claims, arguments and evidence in a structured and logical manner.
Problem-Finding and Creative Problem-Solving	Identify stakeholders and clarify their needs. Identify and investigate influencing factors and be able to effectively communicate risk and safety problems to relevant stakeholders. Approach problems from different perspectives and work collaboratively with other disciplines. Apply different risk and safety techniques, from the range of tools available, to generate ideas and solutions with others.

Behaviours

High Reliability Mindset	A healthy scepticism about whether systems and processes are working effectively. Challenge and test assumptions and avoid over-simplification of complex risk issues. Conversely, avoids over-complication, and applies a proportionate level of analysis. Courage and conviction in the face of adversity, backing up conclusions with evidence.
Change, Adapting and Visualising	A willingness to recognise and assess change in risk and safety management contexts, whether engineering, organisational or procedural. Reflect on the change and adapt own approach. Open to abstract ideas and concepts as well as real world systems and processes. Communicate visually the concepts and ideas and be able to assess the feasibility of practical solutions.
Improving	A drive to make designs, solutions and processes better from a risk and safety perspective. Work with teams to conjecture, research, innovate and clarify improvements. Co-operative. Solicit stakeholder feedback on proposals and assess benefits and sacrifices to arrive at effective improvements.
Professional Participation	Plan and review own development needs and carry out CPD. Regularly reflect on own competence and behavioural development. Comply with the obligations of own professional institution. Personal commitment to high standards of professional conduct including reliability, honesty, integrity and ethics. Actively engage in forums advancing risk and safety management as a profession.

DURATION: The typical duration will be three years, depending on the amount of academic study and relevant vocational experience achieved each year.

QUALIFICATIONS: Apprentices must complete an MSc in risk and safety management (at level 7); recognition of prior experiential learning is allowable where appropriate. Apprentices without level 2 English and Maths will need to achieve this level prior to the End Point Assessment (EPA).

LINK TO PROFESSIONAL REGISTRATION: The apprentice will achieve the standard of risk and safety management professional. This apprenticeship provides evidence of knowledge, skills and behaviours in line with the professional registration requirements for Chartered Engineer, however, the apprentice may also need to acquire additional experience. The apprenticeship may also align with the professional registration requirements of relevant professional bodies regulated by the Engineering Council but the apprentice may additionally need to acquire further specific experience.

LEVEL: This is a Level 7 apprenticeship. **REVIEW:** This standard will be reviewed after 3 years.