

Draft Gold Standard Process Technician Formulation

	The Gold Standard Job Role skills, knowledge and behaviours	Gold Standard Qualifications & Training Standards (Examples)
Technical competence	<p><i>The individual has...</i></p> <ul style="list-style-type: none"> • <i>An appreciation of the relevant science and technology knowledge for the sector</i> • <i>knowledge relevant to the manufacture of formulated products for specific industry applications</i> <p><i>The individual understands...</i></p> <ul style="list-style-type: none"> • <i>the principles which underpin the manufacture of formulated products including:</i> <ul style="list-style-type: none"> ○ <i>comminution, crystallisation, granulation, fluidisation</i> ○ <i>powder and liquid mixing technologies</i> ○ <i>suspension and dispersion techniques</i> ○ <i>crystalliser selection and design</i> ○ <i>precipitation processes</i> ○ <i>supercritical fluid processes</i> ○ <i>membrane technologies</i> ○ <i>powder and liquid handling and storage</i> ○ <i>flow through packed beds and porous media</i> ○ <i>solid-liquid separation processes</i> ○ <i>Compaction and mechanical properties of solid products</i> • <i>the principles of process control and instrumentation including:</i> <ul style="list-style-type: none"> ○ <i>measurement terminology; variables controlled and measured</i> ○ <i>flow measurement</i> ○ <i>temperature measurement</i> ○ <i>pressure measurement</i> ○ <i>electrochemical measurement</i> • <i>the principles of process operation including:</i> <ul style="list-style-type: none"> ○ <i>preparing and starting up a process</i> ○ <i>controlling and monitoring a process, and resolving</i> 	<p>L2 & L3 Diploma in Process Technology</p> <p>L3 Diploma in Operations and Technical Support in the Process Industries</p>

	<p><i>problems</i></p> <ul style="list-style-type: none"> ○ <i>Critical Step Analysis and in-process controls</i> ○ <i>Impact of formulations on ancillary process equipment</i> ○ <i>Completing and shutting down a process</i> ○ <i>Clean down procedures and techniques</i> ○ <i>Maintenance support of plant and equipment</i> ○ <i>Operating to regulatory requirements of formulated products such as GLP, GMP, where appropriate</i> <p><i>The individual can...</i></p> <ul style="list-style-type: none"> ● <i>Perform simple quality control (qc) and standard analytical tests on formulated products</i> ● <i>Interpret the results from these tests</i> ● <i>Make decisions on how to modify the formulated product based on the interpretation of the qc data</i> ● <i>Apply the principles of experimental design</i> 	
<p>Compliance</p>	<p><i>The individual understands...</i></p> <p><i>Health & Safety</i></p> <ul style="list-style-type: none"> ● <i>Foundations of health and safety</i> ● <i>Responsibility for health and safety</i> ● <i>Risk assessment & Control including COSHH assessments</i> ● <i>Transport, Electrical & Fire safety</i> ● <i>Manual handling and repetitive activities</i> ● <i>Hazardous substances</i> ● <i>Working environment</i> <p><i>Process Safety</i></p> <ul style="list-style-type: none"> ● <i>Foundations of process safety including the HAZOP methodology</i> ● <i>Systems to prevent loss of containment</i> ● <i>Common risks and controls</i> ● <i>Plant integrity</i> ● <i>Emergency response</i> <p><i>Environmental Management</i></p> <ul style="list-style-type: none"> ● <i>Foundations of environmental management</i> ● <i>Control of emissions</i> ● <i>Environmental risk assessments (impact assessment)</i> <p><i>additionally the role may require competence in a number of</i></p>	<p>NEBOSH Award in Safety, Health & Environment for the Process Industries</p> <p>IOSH Managing Safely</p>

	<p><i>specialist operations including....</i></p> <ul style="list-style-type: none"> • <i>Working at height</i> • <i>Ladder safety</i> • <i>FLT operator basic training</i> • <i>Confined spaces</i> • <i>Manual handling</i> 	
Business improvement	<p><i>The individual understands...</i></p> <ul style="list-style-type: none"> • <i>the practice associated with a variety of appropriate business improvement techniques</i> <p><i>The individual can:</i></p> <ul style="list-style-type: none"> • <i>review existing processes and practices, and recommend changes where necessary</i> • <i>suggest ideas for new or improved processes</i> • <i>Assist in commissioning of new Equipment</i> • <i>solve process problems using business improvement techniques</i> <p><i>The individual understands and can deploy the principles of Resource Efficiency, including an awareness of Lean and Six Sigma techniques</i></p>	<p>Levels 2-3 NVQ Diploma in Business Improvement Techniques (QCF)</p> <p>Edexcel L2 Award in Contributing to Business Resource Efficiency (QCF)</p>
Functional & Behavioural		Performance appraisal HR systems
<i>Skills for life</i>	<p><i>The individual has</i></p> <ul style="list-style-type: none"> • <i>basic skills in communications, numeracy and ICT</i> 	L2 Skills for Life
<i>Autonomy</i>	<p><i>The individual</i></p> <ul style="list-style-type: none"> • <i>Can work autonomously and closely follow process procedures within required timelines.</i> • <i>Can exercise judgement within limited parameters</i> • <i>.</i> 	
<i>Working with others</i>	<p><i>The individual can ...</i></p> <ul style="list-style-type: none"> • <i>develop co-operative relationships with others in particular with new product development teams and plant operatives</i> • <i>plan work with others and review progress against objectives</i> 	

	<ul style="list-style-type: none"> • <i>contribute towards the improvement of collaborative working</i> • <i>take responsibility for supervising or guiding others where appropriate</i> 	
<i>Personal development</i>	<p><i>The individual can...</i></p> <ul style="list-style-type: none"> • <i>take responsibility for personal development by setting targets and planning how they will be met</i> • <i>review progress towards targets and establish evidence of achievements</i> 	
<i>Business awareness</i>	<ul style="list-style-type: none"> • <i>Has an appreciation of the industry sector and competitors</i> • <i>Understands company structure, processes and procedures</i> • <i>Is aware of customer requirements</i> 	ILM L2 Award in Business Awareness