



Process Manufacturing (Wales)

The Process Manufacturing Framework provides work based training for young people and adults to undertake key technical, operational and maintenance roles in the Chemical, Petro-chemical, Pharmaceutical, Refinery and other related process industries.

There are two levels of Apprenticeship contained in this framework:

- **The Foundation Apprenticeship (Level 2) in Process Manufacturing**

This usually takes 15 to 24 months to complete.

- **The Apprenticeship (Level 3) in Process Manufacturing**

This usually takes 24 to 36 months to complete.

The framework contains details of vocational qualifications; knowledge based technical qualifications, Essential Skills Wales (Communication, Application of Number, Information Technology) and employee's rights and responsibilities required for an apprenticeship in Process Manufacturing.

Apprentices undertake training on-the-job at their workplace and off-the job usually delivered by a local training provider or Further Education College.

Summary of the purpose of the framework

This framework is for the process manufacturing industries. The process manufacturing industries produce many of life's necessities including products like pharmaceuticals, soap and toiletries while the refining industries (also known as Downstream) is responsible for turning crude oil into fuels and lubricants.

The process manufacturing industries face many and considerable challenges: competition from companies all over the globe, the requirement to be safe, clean and sustainable and ever increasing public expectations for new and better products. Technology, science and engineering underpin the success of process manufacturing industries employers and combined they have an ongoing demand for thousands of highly skilled and flexible scientists, engineers, production operatives, managers and leaders. With an ageing workforce and a decline in the number of technically trained people coming through the system, meeting this demand has become an imperative.

There are a number of process manufacturing industries clustered around Cardiff, Swansea and Newport in the South of Wales, and Wrexham in the North. There are also two petroleum refineries at Milford Haven and Pembroke and a decommissioned refinery in Waterston, which currently has an oil storage and jetty facility in operation. The South Hook Terminal, In Milford Haven is the largest Liquefied Natural Gas (LNG) terminal in Europe and is a major contributor to the UK's energy needs.

The Petroleum, Chemicals and Pharmaceuticals Industries are strategically important to Wales. The workforce within these industries accounts for 16% of the nations manufacturing workforce and 17% of manufacturing employers. (Cogent Sector Skills Assessment Wales: www.cogent-ssc.com/research)

There are insufficient operators and technicians entering these industries to meet future forecasted demand. The framework is designed to meet the needs of the process industries by forecasted demand. The framework is designed to meet the needs of the process industries by providing the future skilled operators and technicians that will have the vocational skills and knowledge to meet the challenges listed above.

After undergoing this Foundation Apprenticeship/ Apprenticeship, skilled operators and technicians could find themselves working in a variety of roles that aid production. A process operator or technician would start up, control, monitor and shut down the systems and machinery involved in production. A maintenance technician would keep the equipment in good working order. A refinery operator/technician would monitor and assist in the production of refinery products.

Cogent is the Issuing Authority for this framework:

The Apprenticeship sector for occupations in chemical manufacturing, nuclear science, oil and gas extraction (also includes process technology, bioscience, polymer and sign making).

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