

Apprenticeship Standard for a Spectacle Maker

Occupational Profile

A Spectacle Maker is anyone who uses their skills and labour for the production and repair of finished, quality assured spectacles with a wide range of prescriptions, coatings and finishes, frame types and styles. They will be using a range of materials for frames, lenses and optical manufacturing and repair tools and equipment. They may be working within a small glazing workshop or in a larger manufacturing environment.

Knowledge, Skills and Behaviours for Spectacle Making

Knowledge	What is required – understanding of
Health & Safety	<ul style="list-style-type: none"> • how to comply with current health & safety at work legislation and regulations including COSHH, PPE in the work environment. • safe handling of materials and work processes that ensure the safety of self and others, including methods for the safe and sustainable disposal of waste materials.
Materials	<ul style="list-style-type: none"> • the properties, uses and limitations of materials used for spectacle making including types of resin, plastics, glass and metals. • techniques for protecting, moving, handling and storing materials.
Tools	<ul style="list-style-type: none"> • the key optical tools and equipment used, the principles of how they work, and how they are prepared, maintained and safely used, including: <ul style="list-style-type: none"> ○ hand tools such as precision screwdrivers and optical pliers. ○ checking tools including focimeter, lensmeters, calipers and base clocks. ○ process tools including Laps and pads. ○ cutting, planing and polishing equipment, drills, tinting baths and coating machines.
Quality	<ul style="list-style-type: none"> • the application and monitoring of the employer's quality standards including methods of recording work.
Construction of spectacles	<ul style="list-style-type: none"> • the process of spectacle making and the elements and principles for the construction of spectacles. • typical construction of spectacles and work practice and any restrictions placed on the construction including availability of lens types / frame limitations.
The manufacture, service and repair of spectacles	<ul style="list-style-type: none"> • how to diagnose, analyse and assess for repair or manufacturing options. • how to assess and advise on the appropriate level of intervention that may be required. • costings and the process of seeking approval for work. • how to apply mathematics and the optical science necessary for the production of prescription and non-prescription lenses. • possible manufacturing problems which may occur and how to respond to them.

Skills	What is required – ability to
Health & Safety and working environment	<ul style="list-style-type: none"> • maintain good standards of health and safety for self and for others, using safe working practices. • prepare and maintain a safe working environment, where both hand tools and mechanical tools are prevalent. • identify and minimise hazards and risks in the working environment.

Technical interpretation and understanding	<ul style="list-style-type: none"> create and interpret technical optical specifications, drawings, and other written and verbal instructions for the manufacture and repair of spectacles, including the identification and appropriate response to problems, including testing and adjustment, seeking advice and guidance as appropriate.
Manufacturing and repair processes	<ul style="list-style-type: none"> select and use the appropriate processes, techniques, materials, tools and equipment for manufacture or repair of spectacles and undertake the spectacle making process from inception to realisation. remove and dismantle components and products, correcting faults and re-assembly of spectacles to the appropriate standard.
Tools and equipment	<ul style="list-style-type: none"> carry out testing and adjustment of spectacles, including lens conformity, frame set-up and cosmetic checks. maintain materials and equipment as appropriate, including grinding and polishing equipment, assembly tools, (precision screwdrivers, optical pliers, routers), measuring devices (focimeters and lensmeters, base clocks and calipers).
Quality	<ul style="list-style-type: none"> work to the appropriate optical quality standards and systems, with efficient use of time, materials and resources. record work and either self-evaluate or obtain feedback from others to improve work and working practice.

Behaviours	What is required – you should
Quality focussed	<ul style="list-style-type: none"> follow policies and procedures, have a strong attention to detail and apply quality assurance checks through the spectacle repair or manufacturing process.
Professionalism	<ul style="list-style-type: none"> have a strong professional work ethic including pride in your work and attention to detail. plan and manage time effectively.
Self-development	<ul style="list-style-type: none"> keep up to date with best practice and emerging technologies within the optical sector. obtain and offer constructive feedback to others, and develop and maintain professional relationships.
Safety orientated	<ul style="list-style-type: none"> be aware of and adopt the processes and procedures for the safe manufacturing or repair of spectacles for both self and others.

Duration

Typically the apprenticeship will take 24 months to complete.

Qualifications

Apprentices without level 2 English and maths will need to achieve this level prior to taking the end-point assessment.

Link to professional registration

Achievement of the standard meets the requirements for eligibility to be admitted as a Freeman of the Worshipful Company of Spectacle Makers

Level: This apprenticeship standard is set at level 3.

Review Date: This apprenticeship standard will be reviewed after 3 years.