

Food Scientist or Technologist

Food scientists research and analyse the chemical, physical and nutritional aspects of food. Food technologists work on the processes of making, improving, preserving and storing food and drink products. These jobs overlap in many cases.

The Work

There are several areas of work.

Research and Development

You could be:

- doing experiments on individual ingredients or finished products to test for safety, or physical and sensory properties (such as taste and smell)
- deciding on, and developing, suitable preserving processes (such as canning, drying or freezing)
- monitoring the movement of food from farm to processing plant to shop, applying a procedure called Hazard Analysis Critical Control Point (HACCP) to ensure food safety at all stages
- improving products, production methods and packaging
- creating recipes for new product ranges and designing new production processes
- finding out if a product appeals to the consumer by carrying out testing
- determining the nutritional values of food for labelling.

Production Management

You could be:

- designing processes for the mass production of food products
- checking that production processes are efficient and looking into any problems
- making sure that production processes meet all health, safety and food hygiene regulations
- liaising with professionals in other areas, such as marketing, sales and distribution
- responsible for resources, recruitment and training
- writing reports and drawing up statistics of results.

Quality Control and Quality Assurance

You could be:

- responsible for high standards of production and storage
- testing food for quality, using sensory, chemical, microbiological and mechanical methods, to make sure national and European safety standards are met
- carrying out research into health hazards such as food allergies.

Pay

The figures below are only a guide. Actual pay rates may vary, depending on:

- where you work
- the size of the company or organisation you work for
- the demand for the job.

The starting salaries for food scientist or technologists tend to be around £20,000 to £25,000 a year. After 2-3 years you could expect to earn £30,000 to £40,000. Managers in most specialisms can earn up to £50,000 or more.

Conditions

- Depending on the job, you might work in a laboratory, factory or office.
- You may visit other branches of your company, suppliers of ingredients and manufacturers or buyers of your products – if you have to do this, a driving licence is useful.
- In research, you are likely to work regular hours.
- In manufacturing, you may have to work factory shifts including evenings and weekends.
- You would often have to wear protective clothing such as a lab coat, hairnet, gloves and a hat.

Getting In

- You may be able to get into food technology through the Modern Apprenticeship in Food and Drink Technical.
- You normally need a relevant degree for the scientific route. For entry to a degree, you need 4 or 5 Highers usually including Maths, Chemistry and another science subject, with English at least to National 5.
- Glasgow Caledonian University offers a BSc degree in Food Bioscience, the only food bioscience programme in Scotland approved by the UK Institute of Food Science and Technology. For entry you require 4 Highers at BBBB including Chemistry, another science subject, and an English based subject plus National 5 English, Maths and Biology at B. A Foundation Apprenticeship is accepted in place of 1 non-essential Higher. See the university website for widening access entry requirements.

Most graduates in food science or technology go directly into work in scientific careers or food product management. You might work in food manufacturing or development, for a supermarket chain, in industry or in a government department. You might also work in education, journalism or perhaps trading standards.

What Does It Take

You need to be:

- logical and methodical
- well organised and able to manage your time
- creative, to develop new products or processes
- responsible
- aware of good hygiene practices and health and safety procedures

- able to work in a team and motivate other staff.

You should have:

- strong written and verbal communication skills
- an interest in science and applying it to the food industry
- good attention to detail
- an enquiring mind
- good number skills to analyse and interpret test results.

Training

- Introductory training is on the job.
- If doing the Modern Apprenticeship, you would study for the SVQ Food and Drink Technical at SCQF Level 6 and the HNC Food Science and Technology.
- The Institute of Food Science and Technology (IFST) runs short courses and a Continuing Professional Development (CPD) scheme to help members develop their professional and technical skills.

Getting On

- You can apply for membership of the IFST – you can apply for associate membership while you are studying at university. With a degree and relevant experience you can apply to be a full member (MIFST). This may help you to progress.
- You may become a specialist in work such as packaging technology or new product development.
- With experience, you may become a manager.
- You may be able to do consultancy work.
- It helps if you are willing to move and you may be able to work abroad.

More Information

The IFST website has lots of information and case studies on education and careers in food technology.

The Future Morph website www.futuremorph.org shows you some of the amazing and unexpected places that studying science, technology, engineering and maths can take you.

Contacts

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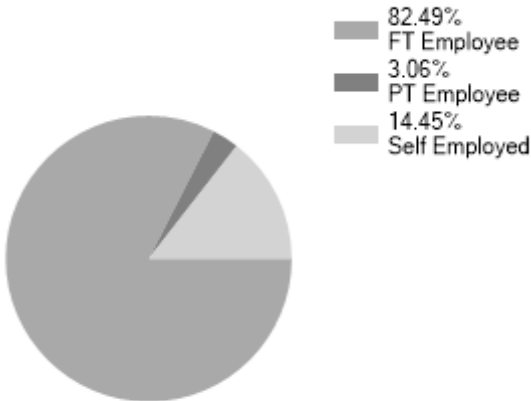
Website: www.istonline.org.uk

Twitter: @istonline

Facebook: www.facebook.com/istonline.org.uk

Statistics

Employment Status UK %

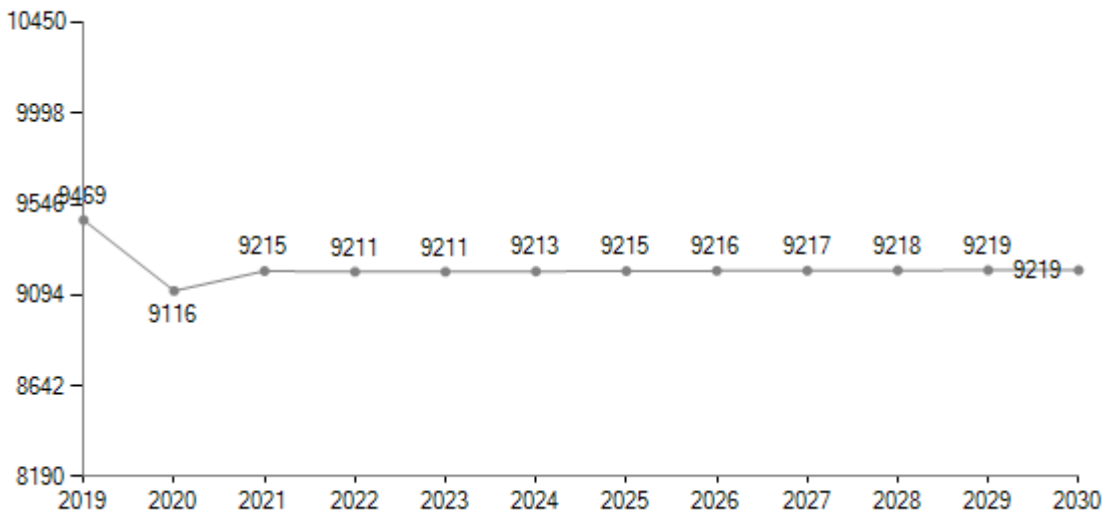


Past Unemployment - Scotland

No Claimant statistics available for Scotland.

LMI data powered by [LMI for All](#)

Predicted Employment in Scotland



LMI data powered by [EMSI UK](#)