

Dette er en oversettelse av den fastsatte læreplanteksten. Læreplanen er fastsatt på Bokmål

Laid down as a regulation by the Norwegian Directorate for Education and Training on 5 February 2008 as delegated in a letter of 26 September 2005 from the Ministry of Education and Research pursuant to the Act of 17 July 1998 no. 61 relating to primary and secondary education (Education Act) Section 3-4 first paragraph.

Valid from 01.08.2008

Valid to 31.07.2023



Utdanningsdirektoratet

## Purpose

The subject Industrial food production shall lay the foundation for practicing an occupation in the production of different types of food and beverages using industrial processes. The subject shall emphasise the utilisation of raw materials and technology, and create an understanding of product requirements, quality, nutrition and food safety.

Learning in the subject shall contribute to developing competence in raw materials, processes, products, quality and costs related to the production process. Learning in the subject shall emphasise the basic principles of industrial food production and testing and further development of new products and production methods. All food production shall have an internal control and quality assurance system based on hazard analysis and critical checkpoints. Learning in the subject shall also contribute to developing the ability to cooperate, be responsible, reorganise, fortify ethical reflection and promote equality.

Learning in the subject shall arrange for varied that emphasise creativity and problem-solving skills.

Training completed and passed in the subject will lead to a Trade Certificate. The professional title is Industrial food production technician.

## Structure

Industrial food production consists of three main subject areas. The main subject areas complement each other, and should be viewed in relation to one another.

### Overview of the main subject areas:

Year level	Main subject areas		
Vg3 / In-service training at a training establishment	Raw materials, production and quality	Machines and equipment	Trade, company and environment

## Main subject areas

The main subject area is concerned with raw materials and production of different types of foods and beverages using industrial processes. Quality management and quality control are also central themes in the subject. It also covers personal hygiene, food industry hygiene and fighting insects and other vermin.

The main subject area is concerned with the use and maintenance of the company's machines, equipment and control systems. The main subject area also includes cooperation with existing support functions.

The main subject area is concerned with the company's framework conditions, business concept, organisation and its place in society. It also emphasises the company's responsibility regarding environment, health and safety.

## Basic skills

Basic skills are integrated into the competence aims for this course in areas where they contribute to the development of and are a part of the basic subject competence. In Industrial food production, basic skills are understood as follows:

*Being able to express oneself orally or in writing* in Industrial food production involves receiving and giving information and communicating with colleagues, customers and collaborators. It also involves preparing reports.

*Being able to read* in Industrial food production involves using and understanding trade literature, reports, manuals, recipes, relevant rules, regulations, procedures and work descriptions.

*Numeracy* in Industrial food production involves understanding and modifying recipes and quantities descriptions, making basic estimates related to production processes and controlling values like time and raw material use and loss.

*Digital literacy* in Industrial food production involves being able to apply the company's information and communication systems, and using the processes' control systems for production.

## Competence aims

### Raw materials, production and quality

*The aims of the training are to enable the apprentice to*

- plan, carry out, evaluate and document the production of different types of foods and beverages
- practice good personal hygiene and production and food industry hygiene according to current rules and legislation
- perform acceptance checks and handle raw materials based on current rules and regulations
- follow flow charts for the production process
- use additives according to existing regulations
- discuss and elaborate on how raw materials, additives and production methods influence the product's nutritional value
- give an account of the changes to products during different stages of the production process
- give an account of the main features of production planning
- perform necessary calculations related to recipes, products and operations
- participate in work fighting insects and other harmful vermin and follow routines set in this area
- perform quality control during the production process and point out and deal with deviations according to the quality control system
- register operational data and report these
- select and control packaging according to existing regulations
- explain and comply with the principles established for labelling and tracking of food products
- perform relevant testing and analysis work

### Machines and equipment

*The aims of the training are to enable the apprentice to*

- use automated control systems
- explain how the machines work

- prepare and reset machines and equipment
- perform start and stop procedures
- use measuring, controlling and regulating equipment
- identify and fix operational errors and disruptions
- ensure good production by cooperating with available support functions at the company
- carry out preventive maintenance and basic repairs
- contribute to developing and improving the production process
- use digital tools during production and operations

## Trade, company and environment

*The aims of the training are to enable the apprentice to*

- discuss and elaborate on framework conditions for the trade and their significance on a national and international level
- give an account of the company's organisation, business concept, origin, development over time and its place in the local community
- discuss and elaborate on which factors can influence economic results
- discuss and elaborate on the relationship between productivity, quality and the company's own working environment
- comply with current legislation for environment, health and safety
- perform work in line with ergonomic principles
- give an account of the tasks of inspectorate authorities and areas where the inspectorate applies to the company
- practice waste handling based on current rules and regulations
- give an account of the content of relevant national and international regulations concerning consumer rights and obligations, including the rules for issuing complaints
- give an account of consumer rights and demands to product labelling and food safety, and current rules and regulation in this area

## Assessment

### Vg3 Industrial food production

Provisions for final assessment:

Main subject areas	Provision
Raw materials, production and quality	All pupils shall sit for a Trade Examination, which is normally carried out over a period of two working days.
Machines and equipment	
Trade, company and environment	

The provisions for assessment are stipulated in the regulations of the Norwegian Education Act.