

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 21 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

×

## Purpose

A construction vehicle and machinery operator performs a variety of work tasks with different types of construction vehicles and other equipment. Construction vehicle and machinery operator training shall contribute to covering society's needs for maintaining and developing the country's infrastructure. The construction vehicle and machinery operator often works in difficult terrain and similar areas, and can make great changes to the natural surrounding and the environment. The subject shall therefore help give construction vehicle and machinery operators a conscious awareness and attitude about questions related to the environment and natural resources.

Learning in the subject shall develop the ability to plan, carry out and evaluate work tasks in line with the needs of users and society's priorities. Furthermore, learning in the subject shall help develop the ability to use new machines, new methods and new equipment, to handle and maintain machines in a correct manner and develop the ability to care for one's own safety and that of others.

Learning in the subject shall emphasise cooperation with colleagues and other vocational practitioners at building and construction sites. Learning in the subject shall emphasise environment, health and safety.

Training completed and passed in the subject will lead to a Trade Certificate. The professional title is Construction Vehicle and Machinery Operator.

## Structure

Construction vehicle and machinery operator consists of four 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 ar	eas		
Vg3 / In-service training at a training establishment	Machines and equipment	Planning, laying out and levelling	Roads, water and drainage	Trade studies

## Main subject areas

The main subject area is concerned with working with different types of earth moving machines and additional equipment. It also covers maintenance and basic repairs. Environment, health and safety aspects of working with machines and equipment are a central theme of this subject.

The main subject area is concerned with work alerts, laying out and levelling. Planning based on drawings and descriptions is also included in the main subject area. Furthermore, the main subject area covers controlling substrate and securing bench marks and fixed points that have been surveyed, laid out and marked in. Environment, health and safety when working with laying out and levelling work is also included.

The main subject area is concerned with basic concrete and ground works related to constructing roads and excavating building pits. It also covers trench work with appurtenant securing work, laying pipes and cables, and installing basins. Loading and transporting are included in the main subject area. Environment, health and safety aspects of working with machines and equipment are a central theme of this subject. The main subject area is concerned with company structures and quality control systems. Current legislation concerning environment, health and safety is included in the main subject area. Professionalism when dealing with clients and customer service are also included.

# **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 Construction vehicle and machinery operator, basic skills are understood as follows:

Being able to express oneself orally and in writing in Construction vehicle and machinery operator involves communicating with different collaborators. It also involves being able to document working processes until the final product is delivered. It also involves being able to discuss and evaluate professional solutions and working processes.

*Being able to read* in Construction vehicle and machinery operator involves locating relevant technical literature, rules, legislation and standards. It also involves understanding the content and use of specifications, assembly instructions, drawings, product descriptions and job descriptions.

*Numeracy* in Construction vehicle and machinery operator involves calculating time and price, weight, surface area, volumes and amounts. It also involves different ways of calculating quantities. Furthermore, it means using scale measures and calculating angles, heights and slopes.

*Digital literacy* in Construction vehicle and machinery operator involves using digital tools in connection with planning, production, documentation, quality assurance and communication. It also involves the use of digital tools for carrying out measurements and calculations.

## **Competence** aims

#### Machines and equipment

The aims of the training are to enable the apprentice to

- master three different types of earth moving machines
- perform work in excavation, loading, transport, laying out and final dressing and levelling
- use additional tools and equipment suitable to work tasks in a correct and suitable manner
- perform maintenance and basic repairs according to a maintenance manual
- comply with current legislation for environment, health and safety work with machines and equipment

#### Planning, laying out and levelling

The aims of the training are to enable the apprentice to

- plan work tasks based on drawings and descriptions
- prepare progress plans and order materials and equipment
- perform work alerts according to current rules and legislation
- use relevant measuring equipment
- use digital tools to perform work tasks
- control slopes and flat surfaces for trenches, building pits and roads
- secure and set up bench marks and mete out fixed points
- carry out calculations of quantities
- comply with current legislation for environment, health and safety for laying out and levelling

#### Roads, water and drainage

The aims of the training are to enable the apprentice to

- load and transport different types of masses
- do foundation work, build-ups and earth impaction based on drawings and descriptions
- perform basic concrete works
- lay pipes and install basins based on drawings, descriptions and trade standards
- comply with current legislation for environment, health and safety work with roads, water and drainage
- perform work in line with ergonomic principles

### **Trade studies**

The aims of the training are to enable the apprentice to

give an account of trade history and its place in society

- comply with standards for professionalism when dealing with clients and customer service
- give an account of content in relevant national and international legislation applicable to the client's rights and obligations, including rules about the right of appeal
- maintain ethical guidelines in the trade
- perform source separation and handle waste based on current rules and regulations
- give an account of quality assurance systems

## Assessment

Vg3 Construction vehicle and machinery operator

Provisions for final assessment:

Main subject areas	Provision
Machines and equipment	
Planning, laying out and levelling	All apprentices shall sit for a Trade Examination, which is normally carried out over a period of three working days.
Roads, water and drainage	
Trade studies	

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

