

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 15 December 2006 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 01.08.2018

Valid to 31.07.2021



Utdanningsdirektoratet

## Purpose

Forestry is a diverse industry that manages substantial national values and resources in forests and wilderness. The programme subjects shall help lay the foundation for long-term management of forest and wilderness, and for vocational practice with focus on the practitioner's responsibility as administrator and as supplier of goods and services to national and international markets.

The aim of the programme subjects is to contribute to a vocational competence where the practitioner shall look after the interest of the general public and sustainable development. The programme subjects shall develop competence in what forest and wilderness can offer by way of production and as an arena enjoyed by the general public. In addition to providing a professional understanding of work and vocational practice, the programme subjects shall help develop creativity, interdisciplinary thinking and personal development. Teaching shall pave the way for innovation and entrepreneurship, where knowledge of the diversity of activities and opportunities in forest and wilderness are central.

Teaching shall include varied vocational assignments related to the production of timber and other nature-based products and forest management in a long-term perspective. In addition, it shall focus on the forest as a cultural landscape and virgin nature, as a natural habitat for flora and fauna, and on photosynthesis as an environmental factor. Teaching shall therefore have a general and long-term perspective, with strong links between theory and practice and in close contact with local enterprise and local organizations. It shall provide an environment in which the pupil can acquire vocational experience under challenging natural and climatic conditions, with use of advanced technology and narrow margins and where the practitioner must often make assessments and deal with challenges first hand. The programme subjects shall also contribute to lifelong learning through its educational aspect, where emphasis is on knowledge, skills and attitudes related to the interplay between ecology, economy, technology and life's values. The programme subjects provide the basis for further vocational education and training in forestry work or general studies in agriculture, fishing and forestry.

## Structure

The programme area for Forestry consists of two programme subjects. The programme subjects complement each other, and should be viewed in relation to one another.

### Overview of the programme subjects:

Year level	Programme subject	
Vg2	Silviculture, wilderness and enterprises	Operation and maintenance

## Description of the programme subjects

The programme subject deals with work processes in silviculture and activities and services related to the general public based on forestry and wilderness enterprises. It also deals with forest ecology and forest management. In addition, the programme subject involves identifying existing and future products, services and customer groups, and setting quality requirements. Business plans and entry of firms, marketing, planning and financial estimates are included in the programme subject. The programme subject also involves the use of digital tools related to forest and wilderness production.

The programme subject covers thinning, felling and transport of timber using relevant technology. It involves planning and implementation in accordance with forestry plans and relevant regulations. It also includes using digital software in planning, operation and documentation. Construction and maintenance of production equipment and machinery is included in the programme subject.

Regulations relating to environment, health, safety and quality requirements to work processes and products are also central to the programme subject.

## Teaching hours

Teaching hours are given in 60-minute units.

Vg2

Silviculture, wilderness and enterprises 225 teaching hours per year

Operation and maintenance 252 teaching hours per year

## Basic skills

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

*Being able to express oneself orally* in Forestry involves using subject-specific terminology and discussing different proposals and solutions. It means explaining and presenting processes and products to customers, authorities and the general public.

*Being able to express oneself in writing* in Forestry involves reporting and documenting processes and products. It also means participating in digital communication and information exchange.

*Being able to read* in Forestry involves using instruction manuals, maintenance schedules and EHS data sheets, and keeping up with trade literature and reports in the media.

*Numeracy* in Forestry involves using figures and calculations for setting profitability targets, making simple estimates and analysing results. It means setting up budgets and keeping simple accounts.

*Digital literacy* in Forestry involves gathering information, communicating digitally and making calibrations and calculations with work-relevant digital tools. It means being able to use digital tools for following up operations, production statistics, maintenance statistics, map reading and positioning.

## Competence aims

*The aims of the studies are to enable pupils to*

- plan, implement, assess and document work in forest and wilderness in line with relevant regulations and industry standards
- select a rejuvenation method and implement forest rejuvenation
- assess the need for and look after a seedling forest
- determine productivity class based on vegetation type
- prepare, sow and plant an area of land

- use a powered clearing saw and manual tools in stand husbandry
- use work-relevant digital tools for gathering information, communication purposes and geographical positioning
- present a selection of flora and fauna species typical to different types of forest and elaborate on their habitats
- describe ecological contexts in different types of forest, identify plants, biotopes and cultural monuments, and evaluate the impact of human activity
- plan and practice a forest and wilderness enterprise with a view to ecology, the general public and other user groups
- explain differences between natural forest and cultural landscape
- evaluate possibilities for new enterprises based on forest and wilderness resources
- plan, implement, evaluate and document wilderness activities organized for the general public at different times of the year
- plan and carry out the production of bioenergy
- work in the forest and wilderness in accordance with relevant environment, health and safety regulations
- set goals for and evaluation the profitability of a wilderness-based production
- explain the difference between budget and accounts, and highlight and explain possible areas of non-conformance
- elaborate on forestry organizations and central features of the public forest administration

*The aims of the studies are to enable pupils to*

- plan, implement, assess and document forestry work, alone and in cooperation with others
- plan thinning and rejuvenation felling in accordance with forestry plans, relevant regulations and environmental standards
- use load carriers, agricultural tractors, power saws and other work-relevant powered tools for thinning and rejuvenation felling purposes in accordance with relevant regulations
- use machines and technical equipment in forestry work in accordance with relevant regulations and standards, and document this
- carry out summer and winter maintenance on forest tracks
- explain the areas of use of a felling machine and how it works, and configure such a machine
- demonstrate simple manoeuvring and felling with a felling machine and felling machine simulator
- use work-relevant digital tools for planning, following up production and operations and geographical positioning

- carry out periodic maintenance on felling machines, load carriers, agricultural tractors, power saws and other powered tools and equipment
- undertake fault finding and maintenance work on engines, driving gear, and hydraulic and electrical systems, and carry out simple repair welds in accordance with relevant regulations
- plan and implement maintenance on machinery and production equipment used in forest and wilderness
- plan and implement work following thinning and rejuvenation felling in line with relevant regulations and standards and with a view to public right of access to the countryside
- assess risk in connection with work in forest and wilderness and take care of their own safety and that of others in accordance with relevant environment, health and safety regulations

## Assessment

### Vg2 Forestry

Provisions for final assessment:

#### Overall achievement marks

Programme subject	Provisions
Silviculture, wilderness and enterprises	The pupil shall have an overall achievement mark in each programme subject.
Operation and maintenance	

#### Examination for pupils

Programme subject	Provisions
Silviculture, wilderness and enterprises	The pupil shall take an interdisciplinary practical examination covering the common programme subjects.
Operation and maintenance	The examination is prepared and graded locally.

#### Examination for external candidates

Programme subject	Provisions
Silviculture, wilderness and enterprises	The external candidate shall take a written examination in each programme subject. The external candidate shall also take an interdisciplinary practical examination covering the common programme subjects.
Operation and maintenance	
	The examination is prepared and graded locally.

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