

ANIMALS, PLANTS AND NATURE

Roskilde Technical College



Roskilde Technical VET College

Roskilde Technical VET College, RTS, located close to the capital of Denmark, offers a wide range of educations, including 34 VET programmes, vocationally orientated technical and commercial education programmes, short-cycled higher education, further education and training and adult vocational training.

Academy for Green Education in Denmark, the green department of RTS, is Denmark's largest provider of both regular and short VET programs within agriculture, horticulture and forestry. The educations offered range from animal keeper, forest and landscape technician and gardener, to floral designer and greenkeepers (golfcourses). Furthermore, a wide range of short-term courses and continued training and educations are offered within what is known as "open education" and the adult vocational training programs.

Every year approximately 2500 students and apprentices attend one of the Academies VET programs. About 1000 students attend short or long term courses focusing on landscaping, greenhouses, cemetery maintenance, and flower arrangement. There are about 60 teachers working on the 72 hectares (about 180 acres) of land which accommodate several greenhouses, landscaping and machine halls, demonstration gardens, an organic farm with domestic animals (husbandry) in modern stabling systems, an indoor riding hall and a small selection of zoo animals.

There is a canteen with room for more than 260 people at a time, a technical library and WIFI. We have computers that are programmed with read aloud and writing assistance for disabled students, who are offered assistance during their education or courses by the vocational education counsellors. Students can begin the basic course of the VET programs for animal keepers, forest and landscape technicians two times per year and gardeners and landscape gardeners four times per year.

International outlook

The International Basic Course: For the very focused, independent and mature students, who are attending the basic course of the VET programs, the academy provides a special international module of four weeks. In this module, the students go abroad, individually or in a small group, to do unpaid work within their chosen field of vocation. In order to apply for this module the student has to fulfil certain requirements, including good English skills, be fully insured and individually make all the necessary arrangements in terms of transportation to and from the training place. When the students return from their workperiod abroad, they are expected to create awareness of the module to future students. The students receive a Erasmus grant to cover their expenses. On the main course of the VET programs, the various classes are usually offered a one week study tour to a European country. The students have to pay a small amount to participate. The students actively help organizing these study tours in cooperation with the teachers.



The VET programmes offered at Vilvorde

Farmer

Farmers specialise in one of two areas at the academy: Crop management or livestock management. The programme also provide a “top-up” education as farm manager. Qualified farmers generally works in the agricultural business and agricultural supportive businesses.

Duration

The total duration of the full education and training programme including basic and main courses is in average 4 years and 1 month, with 76 weeks spent at school. The “top-up” provides another 20 weeks on school.

Animal keeper

Animal keepers specialise in one of four areas at the academy: zoological animals, test and laboratory animals, pet shops and horses.

Qualified animal keepers generally work in zoos and animal parks, at stud farms, equestrian centres, and aquaculture facilities, or in companies working with test and laboratory animals. They may also work in agriculture. Typical assignments and job functions include the feeding and care of animals, health checks and the prevention of diseases in animals.

Duration

The total duration of the full education and training programme including basic and main courses is in average 4 years and 1 month, with 72 weeks spent at school. The total duration of the Pet Shop specialisation is 3 years and 7 months, with 66 weeks spent at school.

Landscape gardener

Specialising in landscaping techniques or maintenance, and maintenance gardener assistant

Landscape gardeners specialise in one of two areas:

Landscaping techniques, where the main emphasis is on planning and execution of technical landscaping assignments in private gardens, major public parks, squares, road areas and cemeteries. The students learn to carry out jobs involving soil, stones and slabs including paving and landscaping assignments. Furthermore, they learn to work with plants and perform ordinary measuring and marking tasks. Maintenance, where the main emphasis is on planning and execution of technical maintenance assignments in private gardens, major public parks, squares, road areas and cemeteries. The students learn to carry out jobs involving soil, and plants including planting and maintenance jobs. Furthermore, they learn to work with irrigation, fertilising, lawn mowing, and weeding, as well as pruning and trimming of bushes and trees.

Duration

The total duration of the full education and training programme for both specialisations including basic and main courses is in average 4 years and 3 month, with 76 weeks spent at school.

Continued and further education

A skilled landscaper may continue studying to become an agricultural technologist.



Forest and landscape technician

Forest and landscape technicians generally work in public or private forests where they participate in harvesting activities such as felling trees, converting logs to lumber, establishing hedges, constructing roads, maintaining wetlands, performing biotope maintenance activities and producing decorative greenery and Christmas trees. A year round task is to make visits to forests and recreational areas attractive to both children and adults. They use machines, tools and implements, common to the trade, in their performance of these assignments. Finally, they are able to organise their own work and solve problems as and when they arise, either alone or in collaboration with small work teams. Vilvorde is only able to offer the basic course for this education. The main course is offered at Skovskolen (the Forest School) in Nødebo.

Duration

The total duration of the full education and training programme including basic and main courses is in average 4 years and 1 month, with 72 weeks spent at school.



Greenhouse gardener

Greenhouse gardeners mass-produce plants such as potted plants and vegetables in large greenhouses. Modern greenhouse gardeners often specialise in a single type of plant. Gardeners cultivate the soil, plant out seedlings, sow seeds, and look after the plants. While the plants grow, the gardeners water them, use fertilisers, spray the plants and carry out plant failure and pest control. Finally, they pack and prepare the plants for sale. Greenhouse gardeners also participate in programming the automatic air-conditioning as well as disinfection of the houses between growing different crops.

Duration

The total duration of the full education and training programme including basic and main courses is in average 4 years and 2 month, with 71 weeks spent at school.

Continued and further education

A skilled greenhouse gardener may continue studying to become an agricultural technologist.





Nursery gardener (production or retail)

Nursery gardeners are able to specialise in both production and retail at Vilvorde. In both cases they work with soil preparation, soil treatment by hand or by machine, manure spreading, and the cultivation, growing and maintenance of plants. Furthermore, they propagate plants both vegetatively and generatively, plant, repot and dig up plants, carry out pruning, propping up and sorting of plants, and perform production planning assignments, using the machines and tools that are common to the trade. They also adjust and repair such machines and tools.

Nursery gardeners specialising in production also work with spraying equipment and carry out chemical weed control as well as weed control by gas burning. In nurseries, the gardeners principally work with soil preparation, manual and mechanical soil treatment, and they spread fertilisers and look after, grow and maintain cultivated crops. Finally, they handle the grading of plants and production planning.

Nursery gardeners specialising in retail also carry out bookkeeping assignments, sales and sales management assignments, various service and marketing functions as well as customer servicing.

Duration

The total duration of the full education and training programme including basic and main courses is in average 4 years and 2 month, with 71 weeks spent at school.

Continued and further education

A nursery gardener, regardless of specialisation, may continue studying to become an agricultural technologist.

Greenkeeper and Groundsmen

Greenkeeper and Groundsmen carry out all common work assignments at golf courses, golf course facilities and stadiums. They tend planted and grassed areas in such a way that optimum conditions for grass growth are ensured. They operate and adjust small and large machines used at golf courses, unsupervised, with a view to ensuring optimum conditions for the growth of grass, etc. They maintain the machinery and carry out relatively uncomplicated repair of such machines based on basic knowledge of machine technology.

Duration

The total duration of the education and training program including basic and main courses is in average 4 years and 3 month, with 70 weeks spent at school.

Continued and further education

A skilled Greenkeeper or Groundsman may continue studying to become an agricultural technologist.



Introduction to the Danish Vocational Education and Training system (VET)

The term VET is used about the system and the programs providing recognised vocational qualifications for a certain trade or profession

- Admission requirements:
 - Completion of compulsory education.
- Target group:
 - Primarily young people (16+), but vocational education for adults is also offered.
- Duration:
 - Varies from 2 to 5 years, the most typical being 3½ to 4 years.
- Completion:
 - The VET programs are normally completed with a journeyman's test or a similar examination testing vocational skills, knowledge and attitudes.
 - Completion of a VET program qualifies students for labour market entry as skilled workers and gives access to certain types of higher education programs as well as to further and adult education.



The Danish VET system is based on three main principles

- The principle of dual training

Alternation between school-based periods and periods of training in a company, based on a legal training contract between the company and the trainee. About 25% of the time is spent in school and 75% in the company. The dual training principle ensures that the student acquires theoretical, practical, general and personal skills, which are in demand on the labour market. From the moment the training contract is signed, the company has the overall responsibility for appropriate training.

- The principle of social partner involvement

The cooperation between the Ministry of Education and the social partners, being the trade unions and employers' unions is very well developed, and the vocational colleges and the companies also share responsibility for the training of each individual trainee. This cooperation ensures that the qualifications obtained are well-known, and generally recognised in the labour market.

The social partners take part directly in the overall decision-making and running of the VET programs.

- The principle of lifelong learning, transparency and credit transfer between programs



There are three access routes to the VET programmes:

1. The school pathway, which starts with one or two basic courses at school depending on age. This is how most students enter VET. After completion of the basic courses, they apply for a training contract and enter the main course.
2. The company pathway, which starts with a training period in a company followed by a basic course and then the main course. This model is, however, not much used. The whole period is covered by a training contract.
3. The practical pathway, which starts with a one-year training period in a company, which will include the subjects covered in the basic course. After a competence assessment, the student continues into the main course.

The whole period is covered by a training contract.

The system is very flexible, and VET and Continuing VET programs are integrated in order to ensure transparency and coherence between the different qualifications and competence levels.



The school-based periods consist of a syllabus divided into four parts:

- 1/3 basic subjects – comprising practical and theoretical subjects, combining general and industry or trade oriented issues. This part aims to provide broad subject knowledge and is common to most training programmes.
- 1/3 area subjects – practical and theoretical education relevant to the course in question, aiming to give the student general as well as specific vocational proficiency.
- 1/6 special subjects – This part aims to provide the student with specific vocational skills.
- 1/6 optional subjects – The fourth part aims to cater for the student's interests. Subjects must be offered which are important for the admission to continuing training and further education. Also, subjects may be offered with a view to meeting qualification requirements and employment opportunities.



The basic course

- is broad in the scope and aims to introduce the student to a vocational area;
- is concluded with a test diploma documenting the completed basic courses, i.e. the subjects and levels reached by the student;
- Basic course 1 and 2 each last 20 weeks.

The main course

Admission requirements:

- A basic course test diploma documenting the type and completion of basic course.
- A training contract with a company or assured admittance to the school-based practical training scheme. The training alternates between school-based periods and periods of workplace training. Practical training constitutes the major part.



Practical workplace training

In order to start practical workplace training, a training contract with a company is needed. It is the responsibility of the student to find a company and obtain a training contract, but the vocational college may assist the student in the process. Students who are not able to find a training placement have – under certain conditions – the possibility of completing the periods of workplace training in a college-based practical training scheme.

The personal education plan and assessment of prior learning

All students enrolled in vocational education and training must have a personal education plan. The education plan is drawn up by the student and a contact teacher (tutor) when the programme starts. The plan is based on an assessment of the student's prior learning - the student's real competencies - and outlines an individual pathway through the VET system. The plan includes a description of the student's expected pathway from unskilled to skilled worker: the objectives and how to reach them as well as information on the student's choice of optional subjects, training contract, student progress and periods of workplace training. The plan is subject to continuous revision and supplementing.





Trainees' wages and students' grants

Students in vocational education and training receive wages from the day they start workplace training and during the entire contract period – both during workplace training and when they are at school. Trainees' wages are paid by the employers and are determined by collective labour market agreements – increasing over the years and ending at typically 40% of that of a skilled worker.

- Students (18+), who choose to start with the school-based basic course, receive money from the Danish State Education Grant and Loan Scheme, SU, until they start workplace training.
- Students, who choose to enter VET via the company pathway, receive wages throughout the entire VET programme.



OPU - work experience abroad

The student enters into a training contract with a relevant enterprise abroad and must receive wage agreed between the student and the employer during the training. During the work experience period, the students should receive instructions in the safety regulations, and how to perform the daily tasks of the specific enterprise. The period can last from 3 to 12 months before the students are going back to school in Denmark. Even though, it's up to the students to find accommodation themselves, we would greatly appreciate your assistance in this process. The student participates in the daily work under the supervision of trained employee. The student learns to solve a given task independently.

Normally, all periods of on-the-job-training take place in the same enterprise. However, it is possible for small enterprises to share a student and his/her training periods.

In addition to specialist qualifications, the student will acquire personal as well as social qualifications during the training. These include flexibility, independence, personal behaviour, tolerance etc.

Before starting the work experience period the trade committee of school need to approve the enterprise and an Agreement on Practical Training need to be filled out. At the end of the period a paper of confirmation of completed practical training also need to be filled out.

AER – The Employers’ Reimbursement System

A reimbursement system including a social fund to which all employers must pay a certain amount each year, and whose main objective is to provide incentives for private companies to offer training places. The employers receive funding from AER for their trainees’ wages during school periods and for 80% of the trainees’ travelling expenses.

SU – The Danish State Education Grant and Loan Scheme

- Grants can be obtained by full-time students aged 18+.
- Grants are paid as monthly scholarships and can be supplemented by student loans.
- Entitlement to public educational grants stops when the student enters into paid workplace training.

Stakeholder involvement and management

The Danish VET system is decentralized and characterized by a high degree of stakeholder involvement. The Ministry of Education, social partners, vocational colleges, companies, teachers and trainees are involved in a continuous dialogue about the development of the Danish VET system. The Ministry of Education has delegated responsibility and authority to the social partners and the vocational colleges on the basis of an overall principle of four levels of management-by-objectives:

1. The political level is responsible for drawing up the framework and ensuring the necessary resources.
2. The social partners are responsible for developing the VET system and making sure that the content of the programs and the acquired qualifications meet the demands of the labour market.
3. The providers (vocational colleges/companies) are responsible for planning and providing the programs.
4. The students are responsible for their own education and training pathway.



Erasmus+ mobility program

Vilvorde, Roskilde Technical College, is part of a Erasmus+ Mobility Program.

The purpose of the program is to send Danish students abroad to gain work experience in 4 weeks as a finishing part of their International Basic Course. The students receive a grant from EU to pay for their travelling, accommodation, and insurance expenses.

When working with people there are no guarantees. Therefore, we have decided on a few important requirements the students need to fulfil before going abroad:

- Be mature and engaged
- Good knowledge of oral English
- Document good vocational and personal skills
- Send the appointed enterprise a CV.

We Send Students Abroad to do Work Experience all year round.



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Read more: www.rts.dk

