TECHNOLOGY AND TRANSPORT

Graphics and Communications Technology
Food Science, Food Industry and Biotechnology
Process, Chemical and Materials Engineering
Textiles and Clothing Technology
This brochure is divided into three sections as follows:

I: Architecture and Construction, Electrical and Automation Engineering, Other Education in Technology and Transport

II: Mechanical, Metal and Energy Engineering, Automotive and Transport Engineering, Information and Telecommunications Technology

III: Graphics and Communications Technology, Food Science, Food Industry and Biotechnology, Process, Chemical and Materials Engineering, Textiles and Clothing Technology

Qualifications in Graphics and Communications Technology impart the competence required in the publishing and printing industry and other communication media. Traditional manufacturing functions in publishing and printing have been replaced by digital generation of printing surfaces and layouts as well as tasks related to on-line and multimedia applications. The work requires multiple skills and keeping up with technical developments. In addition to printing presses, jobs in the sector are offered by marketing departments of companies, advertising agencies and telemarketing enterprises.

Holders of a qualification in Food Industry, Food Science and Biotechnology (vocational, further and specialist qualifications) produce various types of foods both in large and medium enterprises or work as independent entrepreneurs. Requirements placed on foodstuff producers working in an international environment include language skills, an understanding of the target country’s culture, a service orientation, and an ability to adapt to different circumstances.

The area of Process, Chemical and Materials Engineering includes vocational fields associated with chemical engineering, forestry, plastic and rubber industries and surface treatment. Studies in Process, Chemical and Materials Engineering impart the competence needed in jobs that involve various production, control room and maintenance tasks in these industries, as well as tasks related to quality control, production process monitoring, research and product development, and product manufacturing and surface treatment.

Qualifications in Textiles and Clothing Technology impart skills in various tasks of dressmaking, textile making, textile care or shoemaking. The fields that focus on materials production produce raw materials for clothes, interior decoration and industrial technologies. The field is suitable for enterprising and creative persons. Professionals in this field are mainly employed by the industries, but they may also be entrepreneurs.
Vocational Qualifications

- Vocational Qualification in Publishing and Printing
  (2 study programmes / competence areas)
- Vocational Qualification in Food Production
  (4 study programmes / competence areas)
- Vocational Qualification in the Processing Industry
  (5 study programmes / competence areas)
- Vocational Qualification in Laboratory Technology
  (1 study programme / competence area)
- Vocational Qualification in Plastics and Rubber Technology
  (2 study programmes / competence areas)
- Vocational Qualification in Surface Treatment Technology
  (3 study programmes / competence areas)
- Vocational Qualification in Wood Processing
  (1 study programme / competence area)
- Vocational Qualification in Boat Building
  (1 study programme / competence area)
- Vocational Qualification in Upholstery
  (2 study programmes / competence areas)
- Vocational Qualification in Textiles and Clothing
  (4 study programmes / competence areas and 7 vocational fields)

Further Qualifications

- Further Qualification in Digital Printing
- Further Qualification for Bindery Operators
- Further Qualification in Bookbinding
- Further Qualification in Printing Technology
- Further Qualification in Printing Surface Preparation
- Further Qualification in Food Processing
- Further Qualification in the Food Industry
- Further Qualification for Confectioners
- Further Qualification in the Bakery Industry
- Further Qualification for Bakers
- Further Qualification in Meat Processing
- Further Qualification in Meat Inspection
- Further Qualification in the Meat Industry
- Further Qualification in Milk Processing
- Further Qualification in the Dairy Industry
- Further Qualification in Chemical Engineering
- Further Qualification in Corrosion Prevention Painting
- Further Qualification in Rubber Processing
- Further Qualification for Floor Layers
- Further Qualification in Glass and Ceramics
- Further Qualification in Wood-based Panel Technology
- Further Qualification for Painters
- Further Qualification in Plastics Technology
- Further Qualification in the Paper Industry
- Further Qualification in Joinery
- Further Qualification in the Sawmill Industry
- Further Qualification for Interior Decorators
- Further Qualification in Industrial Surface Treatment
- Further Qualification for Boat Builders
- Further Qualification in Clothing
- Further Qualification in Fur Dressing
- Further Qualification in Textiles
- Further Qualification in Textiles Care
- Further Qualification in Shoemaking
- Further Qualification in Leather dressing
- Further Qualification in Bags and Leather Goods Production

Specialist Qualifications

- Specialist Qualification in Printing
- Specialist Qualification in Bookbinding
- Specialist Qualification in Machine Bookbinding
- Specialist Qualification in Printing/Rotary Printing
- Specialist Qualification in Page Layout
- Specialist Qualification in Food Technology
- Specialist Qualification for Confectioners
- Specialist Qualification for Bakers
- Specialist Qualification in Chemical Engineering
- Specialist Qualification for Floor Layers
- Specialist Qualification for Panel Process Operators
- Specialist Qualification for Painters
- Specialist Qualification in Plastics Technology
- Specialist Qualification in the Paper Industry
- Specialist Qualification in Surface Treatment
- Specialist Qualification in Joinery
- Specialist Qualification for Sawmill Process Operators
- Specialist Qualification in Interior Design
- Specialist Qualification for Boat-builders
- Specialist Qualification in Clothing
- Specialist Qualification in Fur Dressing
- Specialist Qualification in Textiles
- Specialist Qualification for Laundry Technicians
- Specialist Qualification in Shoes
- Specialist Qualification in Leather Dressing
- Specialist Qualification in Bags and Leather Goods Production
**VOCATIONAL QUALIFICATIONS**

Vocational qualifications impart wide-ranging vocational competence needed in working life, specialist skills in the field, and capacity for further studies. The scope of a vocational qualification is 120 credits, mostly consisting of vocational qualification modules made up from on-the-job work and activity packages. In addition to compulsory vocational modules of the qualification, there is a large selection of optional ones, for example those that are part of other vocational qualifications. It is also possible to individually expand the qualification. Upper secondary vocational education and training also contain modules complementing vocational skills and optional modules. A vocational qualification can be taken in 2-4 years, depending on the student’s basic education and work experience.

A vocational qualification can be taken through vocational upper secondary education and training or as a competence-based qualification.

At their discretion, students or candidates can take one or several modules of the vocational qualification at a time, whenever this is appropriate for their placement in working life. In that case, a plan covering the entire vocational qualification is prepared.

**FURTHER AND SPECIALIST QUALIFICATIONS**

For further qualifications, the students or candidates demonstrate their mastery of vocational skills required of an employee in the field, and in specialist qualifications, mastery of the most demanding tasks in the field.

The further and specialist qualifications consist of on-the-job work and activity packages. Compulsory and/or optional modules of the qualification are determined in the qualification requirements. The scope of further and specialist qualifications or their parts is not determined in credits.

Further and specialist qualifications are taken as competence-based qualifications.
VOCATIONAL QUALIFICATIONS

Vocational Qualification in Publishing and Printing
Holders of a Vocational Qualification in Publishing and Printing are able to work as professionals in the printed media sector with cost and environmental awareness and supporting material and energy efficiency. In addition to basic skills in the field, they have specialist competence determined by their choices in layout design or printing technology.

Title:
• Printing Assistant

Printing Assistants (study programme/competence area in Layout Design) plan and implement the layout of a product intended for printing or online publication, taking into account the technical requirements of processes and the basics of graphic design.

Jobs: large printing presses and SME enterprises specialising in printing, telemarketing enterprises and company marketing departments, advertising agencies.

Further Qualifications

Further Qualification in Digital Printing
Qualification holders assess, supervise and control the quality of printed products. They control digital printing presses and production lines, which have process control systems in English. The work is characterised by short delivery times, additional runs and changing information in printed products.

Jobs: printing presses, photocopying services and companies.

Further Qualification for Bindery Operators
Qualification holders ensure the post-press finishing of semi-finished products using individual machines, post-press machine lines or a newspaper dispatch line. They finish partial stages, assume responsibility for a production line or supervise, control and monitor the progress of newspapers to dispatch.

Jobs: printing presses, newspaper dispatching.
**Further Qualification in Bookbinding**
Bookbinders bind books between covers using traditional and modern techniques and also repair and restore books. They independently design the appearance of the products they bind following their creative and craftsperson’s vision. They work economically and estimate the costs in advance. They work naturally in customer service and are service-oriented.

**Jobs:** commercial bookbinding services of a small enterprise, private manual bookbinding workshops in libraries or in connection with library services.

---

**Further Qualification in Printing**
Qualification holders assess, supervise and control the quality of printed products. They control printing presses and production lines, which have process control systems in English.

**Jobs:** printing presses.
Further Qualification in Printing Surface Preparation
Professionals in Printing Surface Preparation design and produce digital files for printed products and websites. They use online connections, data transmission hardware and image processing, publishing, graphics, positioning, editing and printing software.
**Jobs:** printing presses, reproduction services, marketing departments; advertising, media or communications agencies.

SPECIALIST QUALIFICATIONS

Specialist Qualification in Printing Technology
Qualification holders play a central role as supervisors in their work community and take part in planning and directing production.
**Jobs:** printing presses.

Specialist Qualification in Bookbinding
Tasks of qualification holders include designing and implementing the manual binding process of a product, assessing and controlling the quality of manual binding, creative, efficient and economical finishing of manual binding and book repairs.
**Jobs:** printing press.

Specialist Qualification in Machine Bookbinding
Task areas of holders of this qualification consist of post-printing finishing of products, guidance and quality control of the work to be finished, efficient and economical finishing of production work and tasks associated with finishing.
**Jobs:** printing presses.

Specialist Qualification in Printing/Rotary Printing
Holders of this qualification supervise the quality of printing, set quality targets and carry out printing efficiently and economically, including any additional tasks associated with it. They have language skills, they are service oriented and they can instruct others if necessary.
**Jobs:** printing press.

Specialist Qualification in Page Layout
The holders of this qualification work in planning, layout, image processing, graphics production, production of original prints and customer service related to printing.
**Jobs:** printing presses.
Vocational Qualification in Food Production

Holders of a Vocational Qualification in Food Production produce foodstuffs following recipes and ensuring that the work results meet quality requirements applicable to foods. They calculate ingredient amounts and are able to plan their own work if necessary. Determined by their choices, students may specialise in the bakery industry, meat industry, dairy industry or other food industry processes.

**Titles:**
- Foods Maker
- Baker-Confectioner
- Meat Products Processor
- Dairyperson

**Foods Makers** (study programme/competence area in Food Technology) work in food production, packaging or storage tasks in small enterprises or large-scale industries, where they monitor the manufacturing process and make the necessary adjustments. They may also work as salespersons and experts in foodstuffs.

**Jobs:** various enterprises producing foods and animal fodders, such as the convenience food, vegetable, confectionary and beverage industries, grocery stores and food departments of large stores.

**Baker-Confectioners** (study programme/competence area in Baking) produce breads and pastries, convenience meals and confectionery products as mainly manual or automated production.

**Jobs:** small and medium bakeries and confectioner’s shops or industrial bakeries, in-store baking units, bakery cafés, industrial and restaurant sector branches and catering companies.
Meat Products Processors (study programme/competence area in Meat Processing) prepare meat products in manufacturing tasks of the field. They cut meat and prepare various meat products in cooperation with other employees or work in slaughtering tasks.

Jobs: meat cutting plants, meat product industry or slaughterhouses.

Dairy Persons (study programme/competence area in Dairy Production) make various processed products with milk, such as edible fats, ice creams and cheeses. Dairy Persons also work in warehouses and packaging units of dairies and monitor the quality of products and ingredients.

Jobs: the dairy industry.

FURTHER QUALIFICATIONS

Further Qualification in Food Processing
Holders of this qualification produce various types of processed foods, and store and handle processed goods and their ingredients appropriately observing self-monitoring rules. They also have the competence to control manufacturing processes. Qualification holders also have the skills needed to work as independent entrepreneurs.

Jobs: small and medium food industry enterprises, food trade, convenience meal production, own enterprise.

Further Qualification in the Food Industry
Qualification holders work in the manufacturing of industrial foodstuffs observing the provisions of hygiene and food legislation. They master working on production lines and follow quality programmes.

Jobs: food product industry, fish processing plants, breweries, soft drink plants.

Further Qualification for Confectioners
Holders of this qualification produce confectionery products both by manual techniques and mechanically. They work flexibly, cost-effectively and hygienically. Confectioners also have the competence to work as entrepreneurs.

Jobs: confectioner's shops of various sizes, combined bakeries and confectioner's shops, also cafés, restaurants, industrial kitchens and outlets or catering enterprises, own enterprise.

Further Qualification in the Bakery Industry
Qualification holders work in companies engaged in the industrial production of baked goods, where the manufacture of products is automated using a continuous process typical of production line manufacturing. Depending on the size of the bakery, they master the working methods, machines and equipment and the cleaning of machines and equipment needed in the whole production process or some subprocess.

Jobs: large industrial bakeries.
Further Qualification for Bakers
Qualification holders apply vocational skills required of a professional in making various doughs and batters, baking breads and pastries, and making convenience meals, special diet products and organic products. They master the working methods of the bakery sector, machines and equipment and their cleaning. They also have the skills needed to work as independent entrepreneurs.

Jobs: bakeries of varying sizes, depending on their personal specialist skills cafés, industrial kitchens and restaurants, own enterprise.

Further Qualification in Meat Processing
Holders of this qualification handle domestic animal carcases and game in compliance with food legislation and hygiene requirements. Determined by their specialisation, they are able to slaughter, joint carcases and prepare meat products. They also have the skills needed to work as independent entrepreneurs.

Jobs: slaughterhouses, smoking houses, small-scale and artisan meat sector companies, own enterprise.

Further Qualification in Meat Inspection
Holders of this qualification act as official assistants when inspecting live animals and slaughtered carcases under EU Regulation 854/2004. They assist a veterinary surgeon in carrying out inspections in tasks related to meat inspections, veterinary disease and animal welfare supervision and slaughterhouse hygiene monitoring.

Jobs: Slaughterhouses supervised by the Finnish Food Safety Authority Evira, reindeer slaughterhouses or small municipally supervised slaughterhouses.

Further Qualification in the Meat Industry
Qualification holders master slaughtering, cutting of meat and manufacturing of industrial meat products. They work on meat production lines, in packaging, warehousing and dispatch functions following quality programmes.

Jobs: the meat industry, slaughterhouses.

Further Qualification in Milk Processing
Holders of this qualification process milk in observance of food legislation and hygiene requirements. In small-scale operations, they process milk into various products, such as soft cheeses, matured cheeses, cultured milk products, edible fats, or ice creams, mainly working as entrepreneurs.

Jobs: own enterprise.

Further Qualification in the Dairy Industry
Based on their specialisation, qualification holders are engaged in a sub-process in the production of fresh products, cheeses, edible fats, dried milk products, ice creams or special products, and package dairy products, and work in warehouse operations.

Jobs: the dairy industry.
SPECIALIST QUALIFICATIONS

Specialist Qualification in Food Technology
Qualification holders plan, direct and develop the activities of a company or a department. They draw up action plans, budgets and comparison calculations, monitor actual costs and take corrective action if necessary. Qualification holders may work in food industry companies as supervisors or superiors, in sales or marketing tasks, or in product development or factory services.

Jobs: large or medium food sector companies.
Specialist Qualification for Confectioners
Holders of this qualification master all phases of manual or mechanical production of confectionery. They organise, direct and supervise the operation of various confectioners’ shops. They keep up with trends, changes and globalisation in the field and their impacts on the sector. Qualification holders work in confectionery sector enterprises in production planning and management tasks, in a supervisory capacity, in product development tasks or in sales and marketing.

Jobs: companies of various sizes producing confectionery products.

Specialist Qualification for Bakers
Holders of this qualification master all phases of manual or mechanical production of various types of baked goods. They organise, direct and supervise the operation of various confectioner’s shops. They keep up with trends, changes and globalisation in the field and their impacts on the sector. Qualification holders work in bakery enterprises in production planning and management tasks, in a supervisory capacity, product development tasks or sales and marketing.

Jobs: bakeries of various sizes.
Vocational Qualification in the Processing Industry

Holders of a Vocational Qualification in the Processing Industry are engaged in the routine daily service and maintenance tasks of the manufacturing processes of different products, monitor the condition of equipment, make necessary process adjustments, and use process control automation systems. Process industries manufacture, for example, pharmaceuticals, brewery products, fuels, detergents, cosmetics, paints, paper and packaging, plywood and chipboard. The Vocational Qualification in the Processing Industry offers a specialisation in various tasks in biotechnology, in the paper industry and chemical industry, as well as the sawmill and panel industries.

**Titles:**
- Process Operator

**Process Operators** (study programme/competence area in the Wood-based Panel Industry) work in various operation and monitoring tasks in the wood-based panel industry.  
**Jobs:** the plywood or chipboard industry.

**Process Operators** (study programme/competence area in the Sawmill Industry) work in various operation and monitoring tasks on the wood-based product industry production lines.  
**Jobs:** sawmills or further processing units of sawn goods, such as planing mills or glued end joint, glued laminated timber, surface treatment or component lines.

**Process Operators** (study programme/competence area in Chemical Engineering) work as process operators in production plants manufacturing basic chemicals, oil refinery or petrochemical products, biofuels, pharmaceuticals, cosmetics, paints, detergents or hygiene products, but also in the production processes of the explosive, glue, resin, ink, food or metallurgical industries.  
**Jobs:** chemical industries, water supply and hydropower plants.

**Process Operators** (study programme/competence area in Biotechnology) work as process operators in industries manufacturing diagnostics products, brewery products, enzymes, basic and functional foodstuffs, biomaterials and biomedicines. They use plant and animal cells, microbes and genetically modified organisms appropriately in their work and act in compliance with the requirements of cleanroom classifications.  
**Jobs:** biotechnology industries.

**Process Operators** (study programme/competence area in the Paper Industry) work in various tasks of different sectors of the paper industry. They master various manufacturing and refining processes of the paper industry at the conceptual level.  
**Jobs:** production plants for pulp manufacturing, paper and cardboard manufacturing, and paper and cardboard refining.
Vocational Qualification in Laboratory Technology
Holders of a Vocational Qualification in Laboratory Technology work in various laboratory sector tasks, in which they monitor the quality of industrial products, engage in natural science research, develop products and production methods and monitor the state of the environment. Qualification holders carry out chemical, physical, biochemical, microbiological and sensory analyses of various samples in observance of the laboratory’s quality and environmental systems. **Jobs:** laboratories working with industrial product development and quality control (for example, the chemical industry, pharmaceutical, metal and food industries and forestry and paper industry), laboratories of research units in universities, food safety control, environmental protection, energy production, Customs supervision, and laboratories in the health-care sector.

**Title:**
- Laboratory Technician

Vocational Qualification in Plastics and Rubber Technology
Holders of a Vocational Qualification in Plastics and Rubber Technology are engaged in the manufacture of plastic and rubber products and perform assistant’s tasks in servicing and maintenance. They test plastic and rubber products and raw materials using the most common testing methods, comply with working life operating rules, observe occupational safety instructions, and take into account the specific risks associated with their work. Vocational Qualification holders specialise in the manufacturing of either plastic or rubber products.
Titles:
• Plastics Mechanic
• Rubber Mechanic

Plastics Mechanics (study programme/competence area in Plastics Technology) work in various tasks in the sector, such as manufacturing, finishing and repairing plastic products, and as product development assistants. The work may be mainly manual, or to a great extent mechanical and automated. Plastic products are manufactured, for example, for the packaging, food, construction, automotive and electronics industries, for health-care sector applications, the household appliance industry, and industries producing sports equipment and leisure and clothing products. Jobs: enterprises producing plastic products.

Rubber Mechanics (study programme/competence area in Rubber Technology) work in rubber industry production, manufacturing, for example, vehicle tires, footwear, hosepipes, various coatings and moulded and extrusion-moulded products. They repair the most common functional faults in manufacturing processes, which may be raw material based or technical faults occurring in machines and equipment. Jobs: the rubber industry.

Vocational Qualification in Surface Treatment Technology
Holders of a Vocational Qualification in Surface Treatment Technology repair or paint buildings, lay floors, or surface-treat metal or timber products. Their skills include painting and wallpapering, floor laying and panelling, anti-corrosion painting of steel structures, metal surfacing of metal products and timber and metal product painting, and they master the operation of surface treatment lines.

Titles:
• Floor Layer
• Painter
• Surface Treatment Finisher

Floor Layers (study programme/competence area in Building Surface Treatment) lay parquet floors and tiles, carry out waterproofing, and lay various types of carpets. Jobs: floor laying and construction companies, own enterprise.

Painters (study programme/competence area in Building Surface Treatment) paint and wallpaper flats, do exterior surface treatments and carry out various smoothing and plastering tasks. Jobs: painting and construction companies, own enterprise.
Surface Treatment Finishers (study programme/competence area in Industrial Wood Surface Treatment) paint, varnish and stain different timber products, such as furniture and wooden structural components, either in a paint shop treating individual items or as a painting line operator.

**Jobs:** wood processing industry production plans, own enterprise.

Surface Treatment Finishers (study programme/competence area in Industrial Surface Treatment) surface-treat metal products either by painting or using metal coatings.

**Jobs:** production plants manufacturing metal products, hot dip and electrical galvanizing plants, other surface treatment plants.

**Vocational Qualification in Wood Processing**

Holders of a Vocational Qualification in Wood Processing make furniture and other durable goods or semi-manufactured and processed products used in construction activities.

**Title:**

- Joiner

**Joiners** (study programme/competence area in Industrial Joinery) work as construction or industrial joiners.

**Jobs:** the joinery industry, construction industry, timber house industry, own enterprise.

**Vocational Qualification in Boat Building**

Holders of a Vocational Qualification in Boat Building produce reinforced plastic, timber or metal boats, work in boat interior decoration and repair boats. Especially in small enterprises, they also engage in reinforced plastic work, joinery, machinery and equipment installations, HVAC installations, low-voltage installations and also the planning and design of boat characteristics.

**Title:**

- Boat Builder

**Boat Builders** (study programme/competence area in Boat Building) work in different boat manufacturing tasks, boat construction and the production and sales of yachting accessories.

**Jobs:** mainly small and medium boat-building companies, own enterprise.

**Vocational Qualification in Upholstery**

Determined by their study programme/competence area or specialisation, holders of a Vocational Qualification in Upholstery are competent in the upholstery of furniture, vehicles or boats, or they engage in interior decoration tasks, such as building light partitioning walls, surface treatment of furniture, laying of carpets, making and fitting of interior decoration textiles, minor joinery jobs, installation of furniture, painting, wallpapering and tiling.

**Titles:**

- Upholsterer
- Interior Decorator

**Upholsterers** (study programme/competence area in Upholstery) may specialise in traditional, industrial or vehicle upholstery. A traditional upholsterer may specialise in repairing and restoring old furniture. An industrial upholsterer
Further Qualification in Corrosion Prevention Painting
Qualification holders master essential tasks of corrosion-prevention painting, such as blast cleaning and high-pressure spray painting. Depending on their specialisation, they also master product painting, powder coating, thermal spraying or rubber coating.

**Jobs:** corrosion prevention plants and contractors, paint shops and industrial plant surface treatment departments.

Further Qualification in Rubber Processing
Qualification holders independently carry out various tasks in rubber product manufacturing. They are familiar with the materials and competent in using the machines and equipment of rubber product manufacture. They supervise the quality of work and identify faults.

**Jobs:** enterprises manufacturing rubber products.

Further Qualification for Floor Layers
Holders of this qualification lay plastic flooring, parquets and tiles. They may specialise in one of the above-mentioned tasks, or additionally in waterproofing and laying of certain specialist floors.

**Jobs:** construction and painting companies, floor laying companies, own enterprise.

Further Qualification in Glass and Ceramics
Determined by their specialisation, qualification holders produce various types of glass, such as plane glass, packaging or household glass, fibre-glass, glass wool and ceramic products.

**Jobs:** glass manufacturing companies, the ceramics industry, own enterprise.

is engaged in the assembly and upholstery of industrially produced furniture. A vehicle upholsterer works with cars, camper vans, boats and vintage vehicles.

**Jobs:** the furniture industry, upholsterer’s shops, own enterprise.

**Interior Decorators** (study programme/competence area in Interior Decoration) often work together with interior design architects and interior designers, and based on plans drawn up by these specialists, are competent in writing work specifications and descriptions for employees covering the whole job. Interior Decorators are required to have a good sense of shape and spatial perception.

**Jobs:** Construction companies, own enterprise.

**FURTHER QUALIFICATIONS**

**Further Qualification in Chemical Engineering**
Qualification holders use the unit processes of their work area and the control, information and automation systems needed in their tasks. They give newcomers induction training in tasks of their work area and assess the standard of their vocational skills.

**Jobs:** production plants manufacturing basic chemicals, oil refinery or petrochemical products, biofuels, pharmaceuticals, cosmetics, paints, detergents or hygiene products, the production process in the explosive, glue, resin, ink, food or metallurgical industries.
Further Qualification in Wood-based Panel Technology
Determined by their specialisation, qualification holders produce and process veneers and plywood, or manufacture chips and chipboard, and finish and process chipboard. They use various types of machine tools efficiently, economically and safely. They master the settings and adjustments of machines and equipment.
Jobs: the plywood and chipboard industry.

Further Qualification for Painters
Determined by their specialisation, qualification holders engage in painting new constructions, repair painting or treat exterior surfaces. They may also work with plastering and injection smoothing, spray paint, perform restoration and decorative painting, wallpaper, tile and lay floorings and carpets.
Jobs: construction and painting companies, floor laying and exterior surface treatment companies, own enterprise.

Further Qualification in Plastics Technology
Holders of this qualification manufacture plastic products of different types. They master the plastic production technique of their choice, machines and equipment as well as raw materials and the production process. They carry out maintenance tasks and troubleshooting, and they know how to act appropriately in case of faults.
Jobs: plastic industry companies.

Further Qualification in the Paper Industry
Qualification holders work in the manufacturing of paper and pulp or in paper processing. They use the unit processes of their work area and the required control, information and automation systems.
Jobs: paper factories, pulp factories, cardboard factories.

Further Qualification in Joinery
Qualification holders make joinery products as well as structures and joints used in joinery. Through optional modules, the students may specialise in industrial production of joinery products, installations, the door and window industry, or the manufacture of staircases or parquet flooring.
Jobs: the construction joinery industry, furniture industry or other wood-processing industry, own enterprise.

Further Qualification in the Sawmill Industry
Qualification holders perform sawmill industry tasks independently, economically and safely. They process loads of timber arriving at the sawmill, produce the required sawn goods and dry and finish them.
Jobs: the sawmill industry, small and medium sawmills, own enterprise.

Further Qualification for Interior Decorators
Holders of the qualification have specialist skills in one of the following interior decoration areas: soft furnishings and upholstery textiles, interior construction, ship interior fittings or furniture and fixtures. They are knowledgeable in the effects of space and lighting in interior design, and they are familiar with different types of materials and furniture. They are familiar with the traditions of construction and interior design. Their tasks are related to soft furnishings and upholstery textiles, interior construction, ship interior
fitting, furniture, styling or interior design sales, and they work together with other professionals in the field and interior designers. 

**Jobs:** interior design enterprises, own enterprise.

---

**Further Qualification in Industrial Surface Treatment**

Determined by their specialisation, holders of this qualification carry out metal industry painting tasks, wood industry painting, varnishing and staining, or operate painting lines or metal coating lines.

**Jobs:** metal and wood product industry production plants and separate surface treatment plants.

---

**Further Qualification for Boat Builders**

Holders of a Further Qualification for Boat Builders build boats using wood, reinforced plastic and metal or other materials, semi-manufactured components and glues. They read technical drawings and define and dimension the shapes of boat components. Determined by their choices, they focus on the building of reinforced plastic, wood or metal boats and one specialisation area of boat building (for example, upholstery).

**Jobs:** boatyards and repair shops.
SPECIALIST QUALIFICATIONS

Specialist Qualification in Chemical Engineering
Holders of this qualification work in the chemical industry in demanding vocational tasks, where they are required not only to master unit processes and their control systems but also to know how to act in case of planned process changes, start-ups and shutdowns. They know how to direct activities following the company’s rescue and protection plans, and they may work in demanding vocational tasks in the chemical industry or as production experts or supervisors.

Jobs: the chemical industry.

Specialist Qualification for Floor Layers
Qualification holders both carry out and supervise the laying of plastic flooring, parquets or tiles. They also know how to plan, organise and direct the work if necessary, and they may act as workplace instructors.

Jobs: construction and painting companies, floor laying companies, own enterprise.

Specialist Qualification for Panel Process Operators
Determined by their specialisation, qualification holders work in demanding vocational tasks of veneer and plywood production and processing, or chip and chipboard production and chipboard finishing and processing. They are competent in analysing working methods and techniques and developing production activities. They may additionally be engaged in work induction and supervisory tasks.

Jobs: the plywood and chipboard industry.

Specialist Qualification for Painters
Qualification holders carry out, direct and supervise construction painting work. They master organising and directing work, cost calculations and operative planning, or they specialise in furniture restoration, restoration painting of buildings, decorative painting, gilding or plaster work.

Jobs: painting contractors, own enterprise.
Specialist Qualification in Plastics Technology
Holders of this qualification direct project work and may be engaged in supervisory tasks. In injection moulding, extrusion moulding, reinforced plastic and other composite techniques as well as other production techniques of the plastic industry, they may plan test runs, assure the quality of the test run product and develop the production programme. They draw up profitability and cost calculations.
Jobs: the plastic industry, own enterprise.

Specialist Qualification in the Paper Industry
Qualification holders are familiar with and master the processes of their own plant and unit and product manufacturing. They work as project team members or leaders. They interpret key figures and draw up financial estimates and calculations. They may work in supervisory or work induction tasks, lead a team and functions as well as develop and provide training for the work community.
Jobs: the paper industry.

Specialist Qualification in Surface Treatment
Qualification holders carry out, direct and monitor industrial surface treatment work. They master metal painting, metal coating and wood industry surface treatments, or they operate metal or wood industry surface treatment lines. They may plan, organise and direct the work. They master cost calculation, produce contract and tender calculations and monitor profitability. They work in training and advisory tasks and as quality controllers.
Jobs: painting sector companies, paint shops and surface treatment units of production plants.

Specialist Qualification in Joinery
Holders of this qualification specialising in industrial joinery master demanding construction joinery industry tasks, installations of joinery products and composite structures. They supervise the production process and work as induction and development instructors at their workplace.
Jobs: the joinery industry.

Specialist Qualification for Sawmill Process Operators
Qualification holders carry out demanding specialist tasks in the sawmill industry, such as machinery alignments, measurements, inspections and installations. They analyse and develop working methods and techniques.
Jobs: the sawmill industry.
Specialist Qualification in Interior Design
Holders of this qualification are adept in planning, pricing, managing and implementing interior design projects. They specialise in one of the following competence areas: soft furnishings and upholstery textiles, interior construction, interior surface treatments, furniture and fixtures, or ship interior fitting. They may work in supervisory and superior’s tasks in the interior design field.

Jobs: interior design enterprises, own enterprise.

Specialist Qualification for Boat-builders
Qualification holders work in supervisory tasks or manage their own enterprise, and manufacture, service, repair and design boats, which requires such skills as reading technical drawings and assessing the technical properties of a boat, for example stability and seaworthiness, based on line drawings. They are able to draw up the documents needed to establish an enterprise.

Jobs: boatyards and repair shops, own enterprise.

TEXTILES AND CLOTHING TECHNOLOGY

VOCATIONAL QUALIFICATIONS

Vocational Qualification in Textiles and Clothing
Vocational Qualification holders sew garments, head gear, accessories and fur items or produce shoes, fabrics, knitted fabrics or other raw materials.

Titles:
• Dressmaker
• Soft Furnishing Sewer
• Milliner
• Tailor

Dressmakers (study programme/competence area in Clothing) design, make patterns and sew clothing and accessories.

Jobs: clothes factories, enterprises producing clothes, clothing outlets, department stores, own enterprise.

Soft Furnishing Sewers (study programme/competence area in Clothing) design and make interior decoration textiles for homes and public spaces by sewing.

Jobs: interior design enterprises, fabric shops, own enterprise.

Milliners (study programme/competence area in Clothing) make and trim hats, bags, gloves and other accessories.

Jobs: milliner’s shops, department stores, theatres, own enterprise.
Tailors (study programme/competence area in Clothing) mainly make men’s suits to order. **Jobs:** tailor’s shops, dress hire enterprises, theatres, own enterprise.

Textiles Makers (study programme/competence area in Textiles Technology) work in process industries as textile makers. **Jobs:** spinning mills, weaving mills, non-woven fabric mills, ribbon making plants, knitting mills, hosiery factories, textile printing mills or dye houses and finishing departments.

Textiles Care Operatives (study programme/competence area in Textiles Care) work in textile cleaning, maintenance, sales and customer service tasks in different types of laundries. **Jobs:** Laundries, own enterprise.

Shoemakers (study programme/competence area in Shoemaking) make and repair footwear and leather products. **Jobs:** shoe factories, department stores, shoemakers, own enterprise.

FURTHER QUALIFICATIONS

Further Qualification in Clothing
Holders of a Further Qualification in Clothing work in various clothing sector tasks.

Holders of a qualification in the competence area of **pattern-making** make and adapt patterns for clothes.

Mechanics assemble, install, repair, service and adjust the most common machines and equipment in the field as well as read and interpret manuals and drawings.

Milliners design, make patterns for and produce accessories and trimmings for various outfits, occasions and events.

Knitters design and make patterns for knitwear, develop various aspects of the product and make knitwear products using a machine.

Dressmakers design and make various products by sewing, and they make and adapt patterns for sewing clothes.

Tailors use various tailoring techniques to design and make clothes and make and adapt patterns and sew clothes to order, such as men’s suits and women’s two-piece suits, for various uses.

**Jobs:** the clothing industry, clothing sector companies, business life, own enterprise.
Further Qualification in Fur Dressing
Holders of this qualification handle fur materials and make fur products. They are familiar with the dressing and finishing processes, fur sector production chains and purchasing practices.
Jobs: fur sector enterprises, own enterprise.

Further Qualification in Textiles
(shared with the Arts and Crafts field)
Determined by their specialisation, holders of a Further Qualification in Textiles weave, knit or produce fabrics industrially. They maintain and service the machines and equipment. They are able to plan the production and interpret plans and instructions, and they master the product manufacturing process.
Jobs: industrial spinning mills, weaving mills, knitting mills, sewing shops, textile printing presses or dye houses and non-woven fabric plants.

Further Qualification in Textiles Care
Holders of a Further Qualification in Textiles Care select a method of care for textiles according to care instructions, recognise the combined effects of various phases of the washing process, and use washing chemicals safely and in an environmentally friendly manner. They use machines and equipment efficiently and select after-care methods, stain removal techniques and re-washing practices for textile groups.
Jobs: Institutional and commercial laundry services.

Further Qualification in Shoemaking
Determined by their specialisation, shoemakers and cobbler having completed this qualification make, service and repair footwear and other leather products.
Jobs: footwear factories, shoemaker’s workshops, small companies engaged in artisan production of footwear, own enterprise.

Further Qualification in Leather dressing
Leather dressing professionals with this qualification work in a factory or their own enterprise dressing leather. They master the grades of leather, their properties, uses, and storage methods as well as the adjustments and maintenance of machines and equipment needed in the sector.
Jobs: factories or own enterprise.

Further Qualification in Bags and Leather Goods Production
Holders of this qualification are able to design and make bags and leather goods. They are able to draw up an enterprise development plan and a budget.
Jobs: enterprises producing bags and leather goods.
SPECIALIST QUALIFICATIONS

Specialist Qualification in Clothing
(shared with the Arts and Crafts field)
Qualification holders may specialise in seven
different competence areas of the clothing sec-
tor. Determined by their specialisation, they
have different skills, qualification titles and tasks
in the sector.

*Specialist Patternmakers* size, make patterns,
shape, fit and pattern-grade cloths both manu-
ally and using computers.

*Specialist Mechanics* take part in purchases of
machines and devices needed in the clothing
sector and service them.

*Specialist Milliners* master the entire process of
making products including their aesthetic details
and understand the significance of quality in
enterprising and customer service.

*Specialist Knitters* master the production process
of knitwear items and are able to direct product
development and production as well as develop
activities to reach the projected quality and pro-
ductivity level.

*Specialist Dressmakers* have good sewing and
pattern-making skills, and they are able to con-
vert plane figures into three-dimensional forms.

*Fashion Consultants* master the entire field of
fashion consultancy, know the various meanings
of clothing and the main steps of a garment’s
route from design to the consumer.

**Jobs:** the clothing industry, clothing sector com-
panies, business life, own enterprise.

Specialist Qualification in Fur Dressing
Holders of a Specialist Qualification in Fur
Dressing may make, or supervise the making of,
fur sector products, and guide and supervise the
manufacturing of products. They may work in
fur sector companies in production-related tasks
as well as in production planning and supervi-
sory tasks. They master the transformation of a
product into industrial production.

**Jobs:** fur sector enterprises, own enterprise.

Specialist Qualification in Textiles
(shared with the Arts and Crafts field)
Holders of a Specialist Qualification in Textiles
master the planning and implementation of the
manufacturing process required in the field of
their choice. Students may specialise in the pro-
duction and fitting of soft furnishings or textile
care and maintenance. Qualification holders may
also work as instructors with induction training
and development tasks.

**Jobs:** industrial spinning mills, weaving mills,
sewing shops, knitting mills, textile print presses
or dye houses and non-woven fabric plants.
**Specialist Qualification for Laundry Technicians**

Holders of a Specialist Qualification for Laundry Technicians provide induction training for and guide textile care staff. They are engaged as experts in developing the quality of textile care services and marketing the services to various customer groups, as supervisors and superiors in a laundry, laundry managers, customer service managers, instructors or in expert tasks. They design layout solutions and plan laundry processes and procurements.

**Jobs:** Laundries, own enterprise.

---

**Specialist Qualification in Shoes**

Determined by their specialisation areas, Specialist Cobblers and Shoemakers with this qualification master the various work phases of making footwear and other leather goods, including their pricing. They also pass on their skills to those pursuing a career in the field.

**Jobs:** cobbler's workshops, shoe factories and artisan footwear companies.
Specialist Qualification in Leather Dressing
Holders of a Specialist Qualification in Leather Dressing carry out demanding tasks in their sector and work as supervisors in their work area. They are adept in organising and directing an enterprise’s production operations.
**Jobs:** factories or own enterprise.

Specialist Qualification in Bags and Leather Goods Production
Holders of this qualification are familiar with leather grades, specialist leathers and other materials, and they make these into bags, leather goods and sample products. They carry out the required adjustments and basic services of machines and direct various work performances in the field.
**Jobs:** enterprises producing bags and leather goods, own enterprise.

Vocational qualifications and further and specialist qualifications give the student a general eligibility for further studies at universities of applied sciences and universities. A natural path for further studies is a bachelor’s degree (engineering) from a university of applied sciences in the field of technology and transport. At universities, the students can take a bachelor’s or master’s degree in technology and engineering. Pedagogical studies for a vocational teacher give eligibility for further education in the tasks of a vocational teacher.

For more information, visit:
www.oph.fi
www.koulutusnetti.fi
www.ammattiosaaja.fi