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Education, training, careers
Your opportunities in NRW

A careers guide

Bundesagentur für Arbeit
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So funktioniert das Schulsystem in NRW: Auszüge aus dem Ministerium für Schule und Weiterbildung des Landes Nordrhein-Westfalen, www.schulministerium.nrw.de

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Welcome to North Rhine-Westphalia and to the Employment Agency!

You have travelled a long, hard road and are starting to get your bearings in your new home. You have already learned a lot and are discovering something new every day. You want to stand on your own two feet in Germany, learn the language, and work.
This brochure will help you to achieve this goal.

I know that most of the people that come to us are highly motivated to work. This high level of motivation serves as an excellent basis for becoming successfully established on the labour and training market, and this, in turn, is a key component of social integration.

With this brochure, we will highlight to you the opportunities available on the training market in North Rhine-Westphalia (NRW). The smart and successful way to go about this begins with good school-leaving qualifications in conjunction with regulated vocational training in a recognised occupation. The next few pages will explain to you, step by step, how to progress from general schooling in NRW to selecting the right career and making a successful start in training.

Following this, the brochure contains descriptions of occupations that offer excellent chances of lasting employment. This is because, already today, various industries and occupations are experiencing a lack of skilled workers. This is simultaneously a serious risk for NRW and your opportunity to gain a foothold in the labour market.

I hope you enjoy reading the brochure and wish you every success in starting your career in NRW.

Christiane Schönefeld
Chairwoman of the Management Board of the Regional Directorate North Rhine-Westphalia of the Federal Employment Agency

Contents

How the school system works in NRW

In NRW, all children are required to attend school if they have reached the age of six by the start of 30 September. Compulsory full-time schooling lasts for nine school years at a Gymnasium, and for 10 school years at all other types of school. This requirement is satisfied by attendance at a Grundschule (primary school) and subsequent attendance at a school offering general education.

For young people not in vocational training, compulsory schooling runs until the end of the school year in which students reach the age of 18.

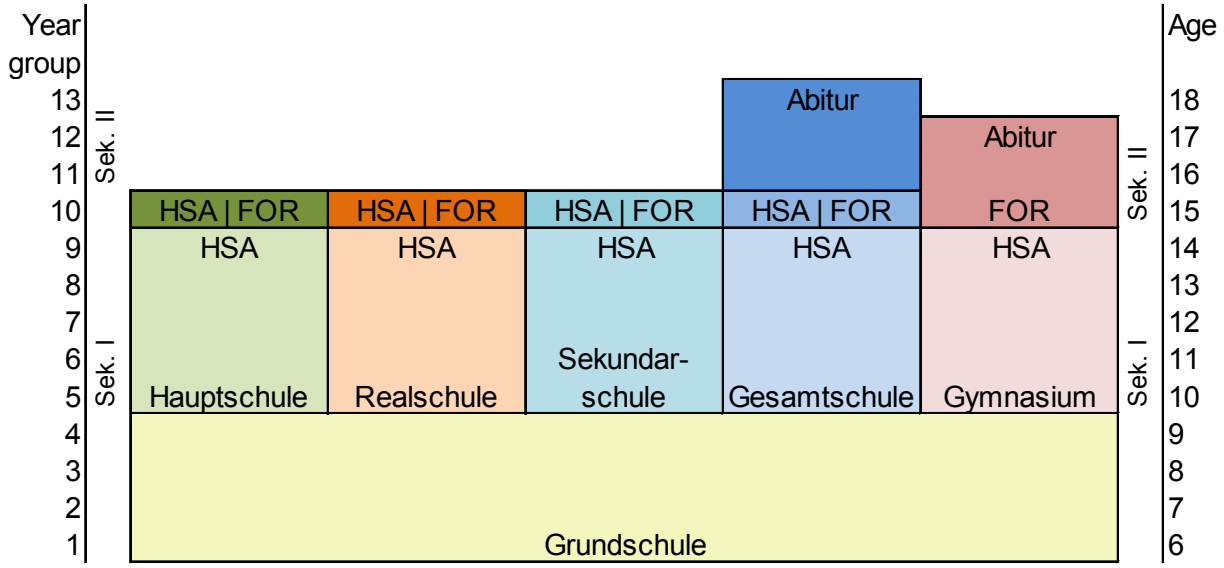
For young people in vocational training, compulsory schooling lasts for as long as they are in a vocational training relationship that commenced when they were under the age of 21.

Grundschule (primary school) is a school in which all children are taught together. After Grundschule (primary school), you can choose between various types of school for Sekundarstufe I (lower secondary education). These differ in terms of the areas of learning, focal topics and teaching provision. They allow pupils to obtain one of the following school-leaving certificates:

- Hauptschulabschluss (lower secondary school-leaving certificate)
- Hauptschulabschluss nach Klasse 10 (lower secondary school-leaving certificate after year 10)
- Mittlere Schulabschluss (certificate of aptitude for specialised upper secondary studies)

Sekundarstufe II (upper secondary education) continues this educational work and expands upon it. At this stage, pupils can obtain one of the following school-leaving certificates:

- Fachhochschulreife (certificate of aptitude for specialised short-course higher education; school-based part)
- Abitur (general certificate of aptitude for higher education)



HSA: Hauptschulabschluss (lower secondary school-leaving certificate);
FOR: mittlerer Schulabschluss (certificate of aptitude for specialised upper secondary studies)
Abitur: (general certificate of aptitude for higher education)
Sek. I: lower secondary educaton; Sek. II: upper secondary education

If you pass the Abitur examination, you are awarded the general certificate of aptitude for higher education, which entitles you to begin studying at a university. If you leave Sekundarstufe II (upper secondary education) before this stage, you can obtain the school-based part of the Fachhochschulreife if you have the corresponding grades. You will be awarded the full Fachhochschulreife if, in addition, you successfully complete vocational training in accordance with federal or state law. Alternatively, you can also complete a one-year guided placement.

Hauptschule

A Hauptschule provides students with a basic general education, focussing on preparing them for career orientation and life-planning activities. All leaving certificates for Sekundarstufe I (lower secondary education) can be obtained at a Hauptschule.

Realschule

Students receive a broader general education, as well as career-orientation skills. Depending on their abilities and inclination, they can switch to a vocational training programme or to the educational pathways offered at Sekundarstufe II (upper secondary education) after completing year 10.

Sekundarschule

A Sekundarschule keeps the educational pathways open for longer and addresses the wishes of many parents for students to be taught together for longer. A Sekundarschule prepares students both for vocational training and for the certificate of aptitude for higher education. It can lead to all school-leaving certificates of Sekundarstufe I (lower secondary education) and allows a transition to Sekundarstufe II (upper secondary education) thanks to a binding cooperation agreement.

Gesamtschule

A Gesamtschule is a school where students learn together for longer. It works with children and teenagers of all abilities and keeps decisions about career choices open for as long as possible. All school-leaving certificates of Sekundarstufe I (lower secondary education) can be obtained at a Gesamtschule. Gesamtschule comprises years 5 to 10 in Sekundarstufe I (lower secondary education) and years 11 to 13 in Sekundarstufe II (upper secondary education).

Gymnasium

A Gymnasium in North Rhine-Westphalia allows students to obtain the Abitur by the quickest route. If followed continuously, this educational pathway usually leads to the Abitur in eight years. The other general or equivalent school-leaving certificates can also be acquired at a Gymnasium. The aim of a Gymnasium is to impart a more profound level of general education, which enables students to begin university studies and qualifies them to enter vocational training.

Förderschule

Students that require special educational support because of learning difficulties or physical disabilities can attend a Förderschule. These schools offer special support in the following key areas:

- emotional and social development,
- mental development,
- listening and communication,
- physical and motor development,
- learning,
- seeing,
- speech.

Have you already obtained your school-leaving certificate outside of Germany?

If you have obtained a school-leaving certificate outside of Germany, then you should arrange a check to see whether this can be accredited in NRW. Accreditation is particularly important if you are interested in a training programme that asks for a specific school-leaving certificate.

Up to the certificate of aptitude for specialised upper secondary studies, responsibility for accreditation lies with the Cologne Government Regional Office, Zeughausstraße 2 – 10, 50606 Cologne. Further information can be found at www.bezreg-koeln.nrw.de.

Accreditation of the general certificate of aptitude for higher education and the associated university entrance qualifications is handled by the Düsseldorf Government Regional Office, Am Bonneshof 35, 40474 Düsseldorf. Further information can be found at www.brd.nrw.de.

Vocational training – for your future

Companies in North Rhine-Westphalia need young and motivated junior staff. Current figures show how high this demand is: in the last training year alone, 6,028 training positions remained unfilled in NRW.

Have you completed your compulsory general schooling? Are you ready to commit to something? Are you also reliable, friendly and capable of working in a team? Then take advantage of this opportunity to learn an occupation and, by doing so, to secure your future. On average, people who successfully complete a training programme earn more money and are less likely to be unemployed.

In Germany, there are several ways to complete vocational training:

Dual vocational training

In dual vocational training, your learning is divided between the workplace and a part-time vocational school. Here you acquire all of the practical and theoretical skills, knowledge and abilities you need as a prospective skilled worker. In addition, you already begin to earn your own money in the form of a training allowance.

The law does not stipulate any specific school-leaving qualifications. Nevertheless, employers often have specific expectations of which school-leaving certificate you should have. The training lasts for 2, 3 or 3.5 years depending on the training programme.

School-based training

You can also obtain a vocational qualification at a specialised state or private vocational school. Here, both the theoretical and the practical learning content is learned on-site at the specialised vocational school. Usually, you attend full-time teaching and supplement your knowledge through workplace placements.

School-based training usually requires a specific school-leaving certificate and lasts one to three years. Depending on the educational pathway, you can obtain a higher school-leaving certificate in addition.

Attendance at a state-run school is usually free, but you may have to pay admission or examination fees. Private schools, on the other hand, typically charge course fees. Further costs may be incurred, e.g. for learning materials, work clothes, travel to the training establishment or student accommodation. Under certain circumstances, you can receive funding in accordance with the Federal Law on Support for Education and Training (www.BAföG.de).

Discover training through videos

BERUFE.TV is the Federal Employment Agency's video portal and is offered in both German and English. On the portal, you will find more than 350 videos on recognised occupations and graduate careers.

The videos allow you to get a solid idea of the various recognised occupations. They examine the working conditions and key tasks, for example, and you even hear from the trainees themselves.
More information at: www.berufe.tv/en

Worth a look! The QR code links to a video that will give you an overview of the training system in Germany in the space of just a few minutes.

This is the job for you

A diverse range of training options are available in Germany, and the training you choose will shape the rest of your life. After all, you will be required to prove yourself for years to come, not only during training but also as a trained specialist.

It is therefore important that you incorporate your own strengths and interests. Before you apply, you should ensure that you have clear answers to the following questions:

- What do I want?
- What can I do?
- What do I like?

Further questions are sure to come to mind. Write down your thoughts and ask your parents and friends for their assessments. Maybe you will discover personal strengths that you were not even aware of.

Do you still have no idea where your career path should lead? Then you should visit www.planet-beruf.de and look at the following content in particular:

BERUFE ENTDECKER

BERUFE Entdecker presents the various occupational fields and recognised occupations in picture form. Discover which ones interest you in an intuitive manner!

With BERUFE-Universum, you will find out more about your vocational interests and strengths. A four-stage process allows you to find the recognised occupation that best suits you and your knowledge, abilities and preferences.

As you can see, there are a lot of questions to answer at the start of working life. This makes it harder to come to the right decision. The careers counsellors at the Federal Employment Agency will be delighted to assist with your career orientation and your search for a training programme.

You can arrange a meeting to discuss this in the following ways:

- by telephoning the free service hotline on 0800 4 55555 23;
- in person in the entrance area of your local Employment Agency;
- online at https://www.arbeitsagentur.de/web/content/EN/index.htm. Click on <<Contact>>

How to find a training position

In NRW, the training programmes start from August each year. Please note that you often have to apply more than a year beforehand. However, there are also always opportunities to find a vacant training position even at short notice.

Always keep your eyes open when searching for a training position! The company around the corner might still have a vacant position. It's also worth scanning the job advertisements in local and regional newspapers. This is another place where local companies often advertise their vacant training positions.

Many training positions are now published online. Companies present them on their own website and in large databases. The Federal Employment Agency's JOBBÖRSE is Germany's biggest job board and is offered in English and French, among other languages. You can use the JOBBÖRSE to search for vacant training positions. You will find it online at: www.jobboerse.arbeitsagentur.de.

How to apply correctly

Have you found the perfect training position for you? Then it's time to convince the training company of your willingness to integrate yourself and your strengths into the company.

The first step in this process is often a written application. You send the training company an application folder containing your cover letter, CV and credentials. Increasingly, however, companies now only accept applications by email or directly online via the company's own website.

Regardless of the method you choose for your application, you should always adhere to the following steps:

- Prepare your cover letter and CV on a computer.
- Scan in your last school report and your work experience certificates.
- Have your photo taken digitally at a professional photography studio.
- Combine all of the documents into one PDF file.
- Give this file an informative name.
- Check the file size.

Although a photo is no longer required, a good photo is one way to present yourself in a friendly light.

You can find lots of important tips on all aspects of the application process at bwt.planet-beruf.de.

BiZ Berufs Informations Zentrum

The BiZ is the place you are looking for if you want information on education, training and careers. It offers you free access to the services mentioned above. You can also prepare and print out your application documents.
There is a BiZ in every Employment Agency.

How to score points at an interview

If your application was sufficiently persuasive, you will normally be invited to an interview. This is the training company's opportunity to form an impression of you in person.

Make sure that your outfit is neither too casual nor too smart. It is also important to show a friendly smile, regular eye contact and clear, articulate pronunciation.

Prepare for your interview well! To help you do this, the Federal Employment Agency has created an app called "Bewerbung: Fit für das Vorstellungsgespräch". You can find this in all of the usual app stores by searching for "Bewerbung".

Your rights and obligations

Your application was successful and you have signed a training contract. Over the next few years, you will take on and overcome many challenges as part of your training. As you do so, it is important that you be aware of your rights and obligations:

Your rights:

- Work equipment such as tools must be provided to you free of charge.
- The training company must release you from work for the time you spend at the vocational school.
- Tasks may only be assigned to you if they serve the training purpose.
- The rules in place at the training establishment must be explained to you.

Your obligations:

- You carry out the tasks assigned to you carefully and handle the work equipment with care.
- You attend the vocational school regularly.
- You follow the instructions of your trainer.
- You keep a report book, updated on a regular basis, and safeguard trade and company secrets.

The skilled-worker bottleneck is your opportunity

In Germany, an increasing number of sectors and occupations are experiencing a lack of well-trained skilled workers. In 2013, therefore, the government laid the legal foundations for simplifying access to the German labour market for candidates from abroad. In occupations where a skilled-worker bottleneck has been identified, the law no longer requires companies to check whether there are preferential candidates from within Germany. This means you have a good chance of beginning training in these occupations.

The next few pages present the recognised occupations in NRW for which a skilled-worker bottleneck has been identified; these include occupations entered via both dual and school-based training.[1] You will learn how training progresses, how long training takes, and how much you will earn during training. You will find out which skills are imparted by the various training programmes and what the work is like after you successfully complete the examinations. The descriptions also indicate the preferred school-leaving certificates and possible alternative training programmes.

And after training?

If you perform well during your training, then the company might well take you on as a skilled worker. Even if they do not, the knowledge you have acquired will make you valuable on the labour market. After all, German training programmes are held in universally high regard.

[1] Whitelist pursuant to section 6 paragraph 2 sentence 1 no. 2 of the Employment Regulation (BeschV); revised: 1 Sep 2015

Old-age carer

School-based training
Length: 3 years
Preferred school-leaving certificate: Mittlerer Schulabschluss (certificate of aptitude for specialised upper secondary studies)

Overview of activities

Old-age carers support and care for elderly individuals in need of assistance. They assist them in coping with everyday life, advise them, motivate them to engage in meaningful activity, and perform nursing/medical tasks.

Old-age carers are primarily employed:

- in old people's homes and care homes;
- in outpatient old-age care and support services;
- in geriatric and geriatric psychiatry departments of hospitals;
- in hospices;
- in nursing and rehabilitation clinics.

In addition, they are also employed in private households.

Training content

For example, trainees learn the following during the theoretical and practical teaching:

- how to accurately assess a patient's state of health and give first aid;
- which medications can be administered under which circumstances;
- how to plan, carry out, evaluate and document the care process;
- how to assist with personal hygiene and what to keep in mind in terms of elderly people's diets;
- what different care models (e.g. outpatient or residential care) and forms of housing (e.g. assisted living) are available;
- how to respond to the personal social environment of elderly people;
- how to coordinate collaboration between relatives and caregivers of elderly people on the one hand and care staff on the other;
- what framework conditions and legal bases apply to collaboration with medical staff and to training and occupations in the field of old-age care;
- what typical conflicts the occupation entails on an everyday basis;
- how to prepare for and implement care of the deceased and how to prepare for administering the estate.

During training, general education is also provided in subjects such as German, economics and social studies.

Training allowance

For example, at public-service institutions or at institutions operated by providers who follow the public-service tariff agreements, trainees receive the following remuneration (monthly, gross):
1st year of training: € 976
2nd year of training: € 1,037
3rd year of training: € 1,138

Anaesthetic assistant

School-based training
Length: 3 years
Preferred school-leaving certificate: Mittlerer Schulabschluss
(certificate of aptitude for specialised upper secondary studies)

Overview of activities

Anaesthetic assistants collaborate in the preparation and carrying out of anaesthetic procedures, as well as in the associated after-care.
Anaesthetic assistants are employed:

- in anaesthesia departments of general, specialist or university hospitals;
- in outpatient surgery centres and specialist medical practices that carry out outpatient surgery.

Training content

For example, trainees learn how to do the following during the school-based training:

- be aware of and practise hygienic working practices;
- prepare and operate technical medical devices and associated follow-up work;
- adequately implement pain therapy;
- carry out patient transport in a planned and structured manner;
- provide anaesthesia assistance in a planned and structured manner;
- assist with diagnosis and therapy in the outpatient/emergency department;
- assist with diagnosis and therapy in the field of endoscopy;
- collaborate in the provision of surgical services;
- communicate, give advice and instructions, and work in groups and teams;
- align their professional conduct with the legal framework conditions and quality criteria.

Training allowance

Students receive appropriate monthly remuneration in accordance with the recommendations of the German Hospital Federation (DGK) for the training and examination of anaesthetic assistants.

Plant mechanic – sanitary, heating and air-conditioning technology

Dual vocational training
Length: 3.5 years
Preferred school-leaving certificate: Hauptschulabschluss (lower secondary school-leaving certificate) or above

Overview of activities

Plant mechanics for sanitary, heating and air-conditioning technology are responsible for installing water- and air-supply systems and installing and connecting bathtubs, shower cubicles and other sanitary facilities. They assemble heating systems and set up and commission boilers. As part of their work, they process metal or plastic pipes, sheets and profiled sections either by machine or by hand.

Especially during the commissioning of heating systems, they install electrical assemblies and components for automatic control processes. They ensure optimum settings in order to achieve reasonable heat output with the lowest possible fuel consumption. They also plan and install solar thermal systems for heating domestic water and integrate these into existing installations. After assembly, they check whether the systems are operating without faults. They advise customers and brief them on operating the equipment or systems.

Training content

For example, trainees learn the following at the training company:

- how to receive customer-specific requirements and information, forward them within the company and take them into account appropriately;
- how to apply the company's quality-management system;
- how to acquire and evaluate information, use internal information flows and be able to participate in company decision-making processes;
- what testing and measurement methods are applied and how these are handled;
- how to apply plant and systems technology and commission supply-engineering plant and systems;
- how to carry out tasks in a customer-oriented manner;
- how to take account of building physics, building ecology and economic framework conditions;
- how to carry out functional checks and ensure the maintenance of supply-engineering plant and systems;
- how to maintain supply engineering plant and systems;
- what to bear in mind when connecting electrical components in supply-engineering plants and systems and how to install assemblies and components.

Furthermore, throughout the training programme, trainees learn about topics such as rights and obligations during training, the organisation of the training company and environmental protection.

At the part-time vocational school, trainees acquire further knowledge in job-specific areas of learning (e.g. the integration of resource-efficient plants into sanitary, heating and air-conditioning systems), as well as in general subjects such as German, economics and social studies.

Training allowance

Examples in crafts (monthly, gross):
1st year of training: € 600
2nd year of training: € 611
3rd year of training: € 686
4th year of training: € 723

Alternative training programmes

Tinsmith

Railway worker in operational service – track duties

Dual vocational training
Length: 3 years
Preferred school-leaving certificate:
- predominantly with Mittlerer Schulabschluss (certificate of aptitude for specialised upper secondary studies)
- with Abitur (general certificate of aptitude for higher education)

Overview of activities

Railway workers in operational service specialising in track duties ensure the smooth operation of passenger and freight transportation in the rail sector. They are primarily responsible for monitoring and supervising the lines as a train dispatcher in the signal box.

Railway workers in operational service specialising in track duties are employed:
- at rail network operators in passenger and freight transportation;
- at companies that operate train control systems.

Training content

For example, trainees learn the following at the training company:
- the various types of railway equipment, how track systems are structured and how to operate level crossing protection systems;
- how to form trains and at the same time evaluate, for example, rolling-stock weights, rolling-stock dimensions and wheel-set loads in terms of the condition and limitations of the railway equipment;
- how to inspect wagons and aspects that must be adhered to, e.g. the inspection and monitoring intervals and operating safety;
- how to supervise a train, e.g. determining that it is ready to depart and issuing the order to depart;
- how to conduct train operations, e.g. how to identify orderly running;
- how to apply the training company's quality management system;
- how to operate signal box equipment in shunting operations;
- how to operate signal box equipment and manage train operations in the event of deviations from normal operation;
- how to operate signal box equipment and manage train operations in the event of faults;
- what action to take in the event of dangerous occurrences.

Furthermore, throughout the training programme, trainees learn about topics such as rights and obligations during training, the organisation of the training company and environmental protection.

At the part-time vocational school, trainees acquire further knowledge in job-specific areas of learning (e.g. taking action in the event of dangerous occurrences during rail operation, using rail company infrastructure to deliver transport services), as well as in general subjects such as German, economics and social studies.

Training allowance

Examples (monthly, gross):
1st year of training: € 685
2nd year of training: € 740
3rd year of training: € 796

Railway worker in operational service – engine driving/transportation

Dual vocational training
Length: 3 years
Preferred school-leaving certificate: predominantly with Mittlerer Schulabschluss (certificate of aptitude for specialised upper secondary studies)

Overview of activities

Railway workers in operational service specialising in engine driving and transportation are responsible for driving locomotives and traction units in regional and long-distance train operations and, in doing so, transporting people and freight. They ensure smooth operation of rail traffic, usually working as an engine driver but also as a driver of urban and underground railways.

Railway workers in operational service specialising in engine driving and transportation are employed at companies providing rail-based freight and passenger transportation.

Training content

For example, trainees learn the following at the training company:

- the various types of railway equipment and how to operate level crossing protection systems;
- how to form trains and at the same time evaluate, for example, rolling-stock weights, rolling-stock dimensions and wheel-set loads in terms of the condition of the railway equipment;
- how to inspect wagons, e.g. the inspection and monitoring intervals and operating safety;
- how to supervise a train, e.g. determining that it is ready to depart and issuing the order to depart;
- how to conduct train operations, e.g. how to identify orderly running;
- how to inspect and control traction units;
- how to implement regular transport services;
- how to implement transport services in the event of deviations from regular service and in the event of faults;
- how to apply the training company's quality management system;

Furthermore, throughout the training programme, trainees learn about topics such as rights and obligations during training, the organisation of the training company and environmental protection.

At the part-time vocational school, trainees acquire further knowledge in job-specific areas of learning (e.g. inspecting the usability and safety of rolling stock, taking action in the event of dangerous occurrences during rail operation), as well as in general subjects such as German, economics and social studies.

Training allowance

Examples (monthly, gross):
1st year of training: € 685
2nd year of training: € 740
3rd year of training: € 796

Electronic systems technician

Dual vocational training
Length: 3 years
Preferred school-leaving certificate: predominantly with Mittlerer Schulabschluss (certificate of aptitude for specialised upper secondary studies)

Overview of activities

Electronic systems technicians assemble, install, service and repair systems in the areas of power supply technology, automatic control technology, electronic signalling technology, safety technology and lighting technology.

Electronic systems technicians are employed:

- at electrical installation companies;
- at power companies;
- at manufacturers of electrical systems and components or industrial process control equipment.

Training content

For example, trainees learn how to do the following at the training company:

- install and assemble electrical systems;
- create brazed and soldered connections;
- identify, isolate, rectify and document errors and faults in system components;
- assemble plug-in modules, housings and switchgear assemblies;
- install lighting systems;
- read and apply circuit documentation for assemblies and equipment, e.g. circuit diagrams, unit connection diagrams or terminal connection diagrams;
- lay cables and conduits and fasten them in place;
- install and wire up switchgear, e.g. power switches and circuit breakers or fuses;
- assemble and wire up assemblies and switch cabinets;
- set up, secure and clear away an installation site.

Furthermore, throughout the training programme, trainees learn about topics such as rights and obligations during training, the organisation of the training company and environmental protection.

At the part-time vocational school, trainees acquire further knowledge in job-specific areas of learning (e.g. electrical engineering), as well as in general subjects such as German, economics and social studies.

Training allowance

Examples (monthly, gross):
1st year of training: € 832 to € 926
2nd year of training: € 905 to € 975
3rd year of training: € 974 to € 1,061

Electronics technician – automation technology (trade)

Dual vocational training
Length: 3.5 years
Preferred school-leaving certificate: predominantly with Mittlerer Schulabschluss (certificate of aptitude for specialised upper secondary studies)

Overview of activities

Electronics technicians specialising in automation technology plan, program, test, install and maintain control systems for computer-controlled installations, e.g. for production machines, traffic management systems or building services systems.

Electronics technicians specialising in automation technology are employed:

- at manufacturers of industrial process-control equipment;
- at electrical installation companies.

Training content

For example, trainees learn how to do the following at the training company:

- specify circuits and protective measures;
- assemble plug-in modules, housings and switchgear assemblies;
- select operating systems and their components, evaluate hardware requirements, and install and configure operating systems;
- configure, adapt and commission assemblies;
- repair equipment;
- select and lay power, communication and high-frequency cables and conduits;
- differentiate between automation technology systems in terms of structure and capabilities;
- select hardware and software components, design user interfaces and application-specific software solutions and plan communication systems;
- install sensors, processors, actuators, transducers and control equipment, as well as data networks and their active components.

Furthermore, throughout the training programme, trainees learn about topics such as rights and obligations during training, the organisation of the training company and environmental protection.

At the part-time vocational school, trainees acquire further knowledge in job-specific areas of learning (e.g. the planning and implementation of electrical installations), as well as in general subjects such as German, economics and social studies.

Training allowance

Examples (monthly, gross):
1st year of training: € 520 to € 630
2nd year of training: € 570 to € 680
3rd year of training: € 620 to € 800
4th year of training: € 668 to € 880

Electronics technician – automation technology (industry)

Dual vocational training
Length: 3.5 years
Preferred school-leaving certificate: predominantly with Mittlerer Schulabschluss (certificate of aptitude for specialised upper secondary studies)

Overview of activities

Electronics technicians specialising in automation technology set up highly complex, computer-controlled industrial systems. They ensure that the respective individual components form an overall system that operates automatically. To this end, they program, test, commission and maintain the systems.

Electronics technicians specialising in automation technology are employed at companies that develop, manufacture or deploy automation solutions.

Training content

For example, trainees learn the following at the training company:

- how to plan workflows and subtasks, taking account of legal, economic and deadline requirements, and how to set priorities in the event of deviations from the plan;
- how to assemble and dismantle assemblies and to adapt parts by machining,
- what to bear in mind when calculating and measuring electrical quantities and how to test and evaluate control systems in terms of their operation;
- how to evaluate hazards resulting from the operation of electrical devices, equipment and installations and what protective measures to take to ensure safe use;
- what to bear in mind when selecting hardware and software components and when integrating IT systems into networks;
- how to modify, adapt, wire up, connect, configure, assemble and dismantle automation technology systems;
- how to install control systems and create control programs;
- how to adjust and test automation technology components, commission analogue and programmable sensor systems, use testing and diagnostic systems, test signals at interfaces, and carry out network-specific testing;
- how to create control programs and program automation equipment;
- how to commission or adapt guidance systems, visualisation systems and data networks of machine or process controllers.

Furthermore, throughout the training programme, trainees learn about topics such as rights and obligations during training, the organisation of the training company and environmental protection.

At the part-time vocational school, trainees acquire further knowledge in job-specific areas of learning (e.g. analysis of electrical systems and functional testing, planning and implementation of electrical installations), as well as in general subjects such as German, economics and social studies.

Training allowance
Examples (monthly, gross):
1st year of training: € 832 to € 926
2nd year of training: € 905 to € 975
3rd year of training: € 974 to € 1,061
4th year of training: € 1,008 to € 1,118

Electronics technician – operating technology

Dual vocational training
Length: 3.5 years
Preferred school-leaving certificate: predominantly with Mittlerer Schulabschluss (certificate of aptitude for specialised upper secondary studies)

Overview of activities

Electronics technicians specialising in operating technology install, service and repair electrical operating, production and process systems, from switchgear and control systems to power-supply systems and communication and lighting equipment.

Electronics technicians specialising in operating technology are employed wherever production systems and industrial plants are used and maintained.

Training content

For example, trainees learn the following at the training company:

- how to plan workflows and subtasks and how to set priorities in the event of deviations from the plan;
- how to assemble and dismantle assemblies and to adapt parts by machining;
- what to bear in mind when calculating and measuring electrical quantities;
- how to carry out calculations in accordance with company guidelines;
- how to evaluate operating technology systems, design system modifications and expansions, and specify circuits and protective measures;
- how to assemble and set up plug-in modules, housings and switchgear assemblies;
- how to commission main and auxiliary circuits;
- how to configure and commission hardware and software for instrumentation and control technology assemblies;
- how to test functions of systems and safety equipment and how to keep a record of tests;
- how to carry out and document servicing.

Furthermore, throughout the training programme, trainees learn about topics such as rights and obligations during training, the organisation of the training company and environmental protection.

At the part-time vocational school, trainees acquire further knowledge in job-specific areas of learning (e.g. analysis of electrical systems and functional testing), as well as in general subjects such as German, economics and social studies.

Training allowance

Examples in industry (monthly, gross):
1st year of training: € 832 to € 926
2nd year of training: € 905 to € 975
3rd year of training: € 974 to € 1,061
4th year of training: € 1,008 to € 1,118

Examples in trade (monthly, gross):
1st year of training: € 520 to € 630
2nd year of training: € 570 to € 680
3rd year of training: € 620 to € 800
4th year of training: € 668 to € 880

Alternative training programmes

Electronics technician – building and infrastructure systems, Electronics technician – energy and building technology, Electronics technician – motors and drive technology, Electronics technician (trade)

Skilled metalworker – construction engineering

Dual vocational training
Length: 2 years
Preferred school-leaving certificate: predominantly with Hauptschulabschluss (lower secondary school-leaving certificate)

Overview of activities

Skilled metalworkers specialising in construction engineering manufacture and assemble custom-made constructions.

Skilled metalworkers specialising in construction engineering are employed:

- at metalworking companies;
- at mechanical engineering companies;
- at vehicle manufacturing companies;
- in the construction industry.

Training content

For example, trainees learn how to do the following at the training company:

- align and clamp workpieces and cut or work them manually or by machine;
- adhere to the specifications and safety rules when working with electrical systems, devices and equipment;
- test and prepare, assemble and dismantle components and assemblies, taking account of their function according to technical documents regarding assembly and dismantling;
- create releasable connections (especially using screws) or permanent connections (especially by gluing, riveting or welding), taking account of the assembly guidelines;
- select machining processes, tools and machines, taking account of the materials;
- mechanically or thermally work and cut sheets, pipes or profiled sections using jigs or guided by hand in accordance with drawings and templates;
- fit components and assemblies together, taking account of the dimensional tolerances; align them according to their function using measurements, gauges and visual inspection; and secure them in position;
- apply control technology and monitor control components;
- join and fasten metal constructions, components and assemblies in accordance with technical documents, especially by fusion welding processes, screwing, soldering and riveting;
- prepare surfaces for the application of, and apply, sealants, anticorrosives, coatings and insulating materials.

Furthermore, throughout the training programme, trainees learn about topics such as rights and obligations during training, the organisation of the training company and environmental protection.

Training allowance

Examples (monthly, gross):
1st year of training: € 832 to € 926
2nd year of training: € 905 to € 975

Registered Nurse

School-based training
Length: 3 years
Preferred school-leaving certificate:

- Mittlerer Schulabschluss (certificate of aptitude for specialised upper secondary studies);
- Hauptschulabschluss nach Klasse 10 (lower secondary school-leaving certificate after year 10);
- Hauptschulabschluss (lower secondary school-leaving certificate) in combination with already completed vocational training or successful attendance at a two-year foundation nursing school.

Overview of activities

Registered nurses support and care for individuals who are ill or in need of nursing, carry out measures ordered by doctors, assist in examinations and treatment, and record patients' details.

Registered nurses are primarily employed at:

- hospitals, specialist medical practices or health centres;
- old people's homes and care homes;
- short-term care facilities;
- outpatient care services;
- residential establishments for people with disabilities.

Furthermore, they are also employed at infirmaries or in sickbays on ships.

Training content

For example, trainees learn the following during the theoretical and practical teaching:

- what causes and types of diseases exist and how diseases are prevented, diagnosed and treated;
- how to fill out a temperature chart, how to take blood and how to prepare for X-ray examinations;
- how to provide first aid in emergencies;
- how to admit, transfer and discharge patients;
- how to assist doctors and carry out preparatory and follow-up work for medical interventions, operations and rounds;
- what different nursing techniques there are and how these are applied (e.g. wound care, injections, infusions; special nursing procedures for eyes, ears, nose, mouth and skin);
- how to determine and justify care needs and prepare nursing plans and documentation;
- how to take into account the social environment of the individual requiring nursing, as well as ethnic, intercultural, religious and ethical factors;
- how to collaborate in the implementation of rehabilitation concepts;
- what legal framework conditions must be adhered to in nursing care.

During the training, general education is also provided in subjects such as German, economics and social studies.

Practical training

Practical training at the hospital allows trainees to deepen the knowledge acquired through teaching and apply it on the hospital's various wards.

Training allowance

For example, at public-service institutions or at institutions operated by providers who follow the public-service tariff agreements, trainees receive the following remuneration (monthly, gross):
1st year of training: € 976
2nd year of training: € 1,037
3rd year of training: € 1,138

Alternative training programmes

Paediatric nurse

Hearing aid audiologist

Dual vocational training
Length: 3 years
Preferred school-leaving certificate:
- predominantly with Abitur (general certificate of aptitude for higher education)
- with Mittlerer Schulabschluss (certificate of aptitude for specialised upper secondary studies)

Overview of activities

Hearing aid audiologists adapt hearing-aid systems to the individual needs of their customers. They carry out hearing tests, fabricate ear moulds and repair hearing aids.

Hearing aid audiologists are employed at:
- companies within the hearing aid audiology trade;
- industrial manufacturers of hearing aids.

Training content

For example, trainees learn the following at the training company:
- the structure of the outer, middle and inner ear;
- how to determine acoustic parameters of the hearing system, e.g. the audibility limit and discomfort threshold, or the range of comfortable hearing;
- which acoustic quantities can be measured with instruments, e.g. amplitude, period, frequency or phase;
- how to make ear impressions;
- how to plan and implement orders;
- how to record customer details using modern information technology and how to conduct written correspondence with customers, companies, doctors and cost units;
- what connection exists between hearing impairment and speech development;
- how to fabricate ear moulds;
- what measuring methods there are and how to carry out audiometric measurements using non-verbal signals, for example;
- how to select hearing aid systems and accessories according to the audiological conditions and the wishes of the patient.

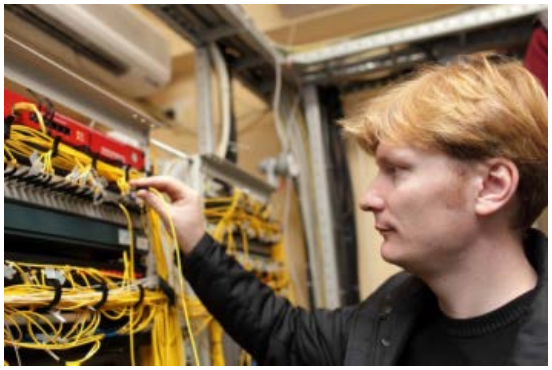
Furthermore, throughout the training programme, trainees learn about topics such as rights and obligations during training, the organisation of the training company and environmental protection.

At the part-time vocational school, trainees acquire further knowledge in job-specific areas of learning (e.g. evaluating audiological parameters with regard to hearing aid systems, selecting and adapting hearing aid systems), as well as in general subjects such as German, economics and social studies.

Training allowance

Examples (monthly, gross):
1st year of training: € 390
2nd year of training: € 440
3rd year of training: € 500

Industrial electrician – operating technology



Dual vocational training
Length: 2 years
Preferred school-leaving certificate: predominantly with Mittlerer Schulabschluss (certificate of aptitude for specialised upper secondary studies)

Overview of activities

Industrial electricians specialising in operating technology assemble and connect electrical equipment. They measure and analyse electrical systems and evaluate their safety. They also maintain the installations and systems.

Industrial electricians specialising in operating technology are employed:

- at companies in the metal and electrical industries;
- at companies in the automotive industry;
- in plant engineering;
- at power companies.

Training content

For example, trainees learn the following at the training company:

- how to assemble and dismantle components and assemblies;
- how to measure, evaluate and calculate electrical quantities;
- what to bear in mind when analysing orders;
- how to test and evaluate protective measures;
- how to assemble wiring for communication technology and how to connect components;
- what hazards result from operating electrical equipment and installations, how to evaluate these hazards, and how to ensure safe use by taking protective measures;
- how to evaluate existing operating technology installations;
- how to set up, align, attach and connect machines, equipment, drive units and other equipment;
- how to test and evaluate the operation of control systems;
- how to test emergency-stop and signalling systems and mechanical safety devices.

Furthermore, throughout the training programme, trainees learn about topics such as rights and obligations during training, the organisation of the training company and environmental protection.

At the part-time vocational school, trainees acquire further knowledge in job-specific areas of learning (e.g. the planning and implementation of electrical installations), as well as in general subjects such as German, economics and social studies.

Training allowance

Examples (monthly, gross):
1st year of training: € 832 to € 926
2nd year of training: € 905 to € 975

Alternative training programmes

Industrial electrician

Construction mechanic

Dual vocational training
Length: 3.5 years
Preferred school-leaving certificate: Hauptschulabschluss (lower secondary school-leaving certificate) or above

Overview of activities

Construction mechanics manufacture steel and sheet-metal constructions. For this purpose, they use manual and mechanical processes to fabricate individual components from sheet metal, profile sections and piping and then assemble these components.

Construction mechanics are employed:

- at metalworking companies;
- at mechanical engineering companies;
- at vehicle manufacturing companies;
- in the construction industry.

Training content

For example, trainees learn how to do the following at the training company:

- evaluate material properties and changes in these properties and select and handle materials according to their use;
- ensure the operability of machine tools and manufacture workpieces and components;
- analyse control technology documents and apply control technology;
- obtain, test and implement order-specific requirements and information;
- plan workflows and subtasks, taking account of economic and deadline requirements, and set priorities in the event of deviations from the plan;
- work and cut sheets, tubes or profiled sections by hand, mechanically and thermally;
- select and set up machine tools according to the manufacturing process and carry out test runs;
- dismantle components and assemblies and label them according to location and functional assignment;
- check prefabricated components and assemblies for further processing by welding.

Furthermore, throughout the training programme, trainees learn about topics such as rights and obligations during training, the organisation of the training company and environmental protection.

At the part-time vocational school, trainees acquire further knowledge in job-specific areas of learning (e.g. fabricating products in construction engineering, servicing technical systems), as well as in general subjects such as German, economics and social studies.

Training allowance
Examples in industry (monthly, gross):
1st year of training: € 832 to € 926
2nd year of training: € 905 to € 975
3rd year of training: € 974 to € 1,061
4th year of training: € 1,008 to € 1,118

There are currently no collective wage agreements in relation to skilled trades.

Mechatronic engineer

Dual vocational training
Length: 3 years
Preferred school-leaving certificate: predominantly with Mittlerer Schulabschluss (certificate of aptitude for specialised upper secondary studies)

Overview of activities

Mechatronic engineers build mechanical, electrical and electronic components, assemble these to make complex systems, install control software, and maintain the systems.

Mechatronic engineers are employed in:

- mechanical and plant engineering;
- automatic control engineering;
- vehicle manufacturing and the aerospace industry;
- information, communication and medical technology;

Training content

For example, trainees learn how to do the following at the training company:

- create and ream drill holes;
- weld sheets, pipes and profiled sections;
- assemble plug-in modules, housings and switchgear assemblies;
- select procedures and measuring instruments, estimate error in measurement and set up measuring equipment;
- wire up various types of assemblies and equipment in accordance with documents and samples;
- install and configure networks and bus systems;
- set up electrical and fluid circuits according to specified problem definitions;
- mount protective equipment, shielding, casings and insulation;
- test control and monitoring equipment and configure control parameters;
- commission mechatronic systems and carry out functional testing.

Furthermore, throughout the training programme, trainees learn about topics such as rights and obligations during training, the organisation of the training company and environmental protection.

At the part-time vocational school, trainees acquire further knowledge in job-specific areas of learning (e.g. analysis of functional interactions in mechatronic systems; investigation of energy and information flows in electric, pneumatic and hydraulic assemblies; design and construction of mechatronic systems; and investigation of information flow in complex mechatronic systems), as well as in general subjects such as German, economics and social studies.

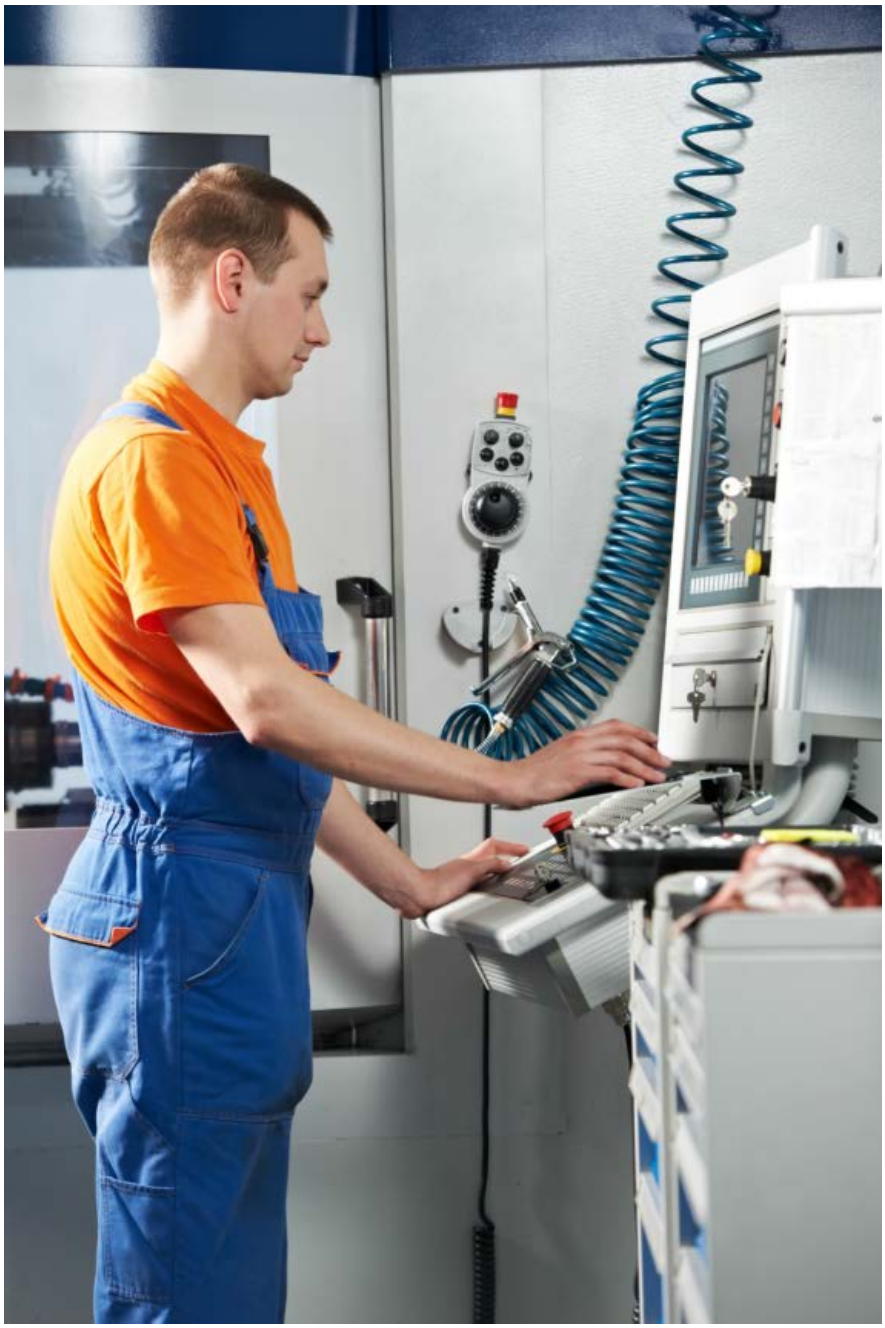
Training allowance

Examples in industry (monthly, gross):
1st year of training: € 832 to € 926
2nd year of training: € 905 to € 975
3rd year of training: € 974 to € 1,061
4th year of training: € 1,008 to € 1,118

Examples in trade (monthly, gross):
1st year of training: € 299 to € 714
2nd year of training: € 345 to € 755
3rd year of training: € 419 to € 823
4th year of training: € 470 to € 875

Alternative training programmes

Mechatronics engineer – refrigeration technology



Metalworker – construction engineering

Dual vocational training
Length: 3.5 years
Preferred school-leaving certificate: predominantly with Hauptschulabschluss (lower secondary school-leaving certificate)

Overview of activities

Metalworkers specialising in construction engineering fabricate, assemble and maintain steel and metal structures.

Metalworkers specialising in construction engineering are employed at:

- companies within the metalworking trade;
- companies specialising in the processing of metal in interior work or building construction (e.g. roofing companies or façade engineering companies).

Training content

For example, trainees learn the following at the training company:

- what to bear in mind when testing workpieces using angle, limit and thread gauges;
- how to read and apply technical documents, e.g. operating instructions, catalogues and parts lists;
- how to join different materials using screws and rivets;
- how to join together components and assemblies and weld sheets and profiled sections;
- what to bear in mind during thermal cutting of sheets and profiled sections made of alloy steel and aluminium;
- how to treat and protect surfaces;
- what to bear in mind when fabricating metal or steel structures;
- how to assemble and dismantle façades, walls, ceilings and roofs;
- how to prepare testing records and document and evaluate technical matters;
- what to bear in mind when coordinating with customers and how to document and implement change requests.

Furthermore, throughout the training programme, trainees learn about topics such as rights and obligations during training, the organisation of the training company and environmental protection.

At the part-time vocational school, trainees acquire further knowledge in job-specific areas of learning (e.g. production of construction elements using machines, fabrication of sheet metal parts), as well as in general subjects such as German, economics and social studies.

Training allowance

Examples (monthly, gross):
1st year of training: € 299 to € 714
2nd year of training: € 345 to € 755
3rd year of training: € 419 to € 823
4th year of training: € 470 to € 875

Alternative training programmes

Metalworker – metal design

Medical assistant

School-based training
Length: 3 years
Preferred school-leaving certificate:

- usually requires a Mittlerer Schulabschluss (certificate of aptitude for specialised upper secondary studies);
- a Hauptschulabschluss (lower secondary school-leaving certificate) and successfully completed vocational training.

Overview of activities

Surgical technology assistants support patients before and after operations, prepare surgical units and assist with operations.

Surgical technology assistants are employed in hospitals and specialist or university hospitals and at outpatient surgery centres.

Training content

For example, trainees learn the following during the theoretical and practical teaching:

- how to work hygienically, prepare and operate technical medical devices and carry out follow-up work;
- how to provide patients with expert supervision and support;
- how to plan and structure stand-in activities;
- what action to take in crises and disaster situations;
- how to carry out instrumentation work in the various specialist surgical fields in a planned and structured manner;
- how to assist with diagnosis and therapy in the outpatient/emergency department and in the field of endoscopy;
- how to prepare medical products within the scope of the Central Sterile Supply Department (CSSD);
- how to provide assistance within the scope of anaesthesia;
- how to develop and learn professional self-image and reflect on professional requirements;
- how to work with others in groups and teams;
- how to align their professional conduct with the legal framework conditions and quality criteria;
- how to act professionally in a social context.

Placement

Placements are an opportunity to implement and apply the theoretical content in a hospital environment. The students obtain experience in typical working methods of the job, such as correct instrumentation or stand-in work. They gain an overview of the structure and procedural organisation of the surgery departments, as well as of the outpatient surgery and endoscopy departments, for example.

Training allowance

Students receive appropriate monthly remuneration in accordance with the recommendations of the German Hospital Federation (DGK) for the training and examination of surgical technology assistants and anaesthetic assistants.

Mechanic – orthopaedic technology

Dual vocational training
Length: 3 years
Preferred school-leaving certificate: Mittlerer Schulabschluss (certificate of aptitude for specialised upper secondary studies) or above

Overview of activities

Mechanics specialising in orthopaedic technology supply patients with orthopaedic aids. For example, they fabricate artificial limbs, splints and bandages or assemble and adapt walking aids or wheelchairs.

Mechanics specialising in orthopaedic technology are employed in orthopaedic and assistive technology workshops and medical supply stores.

Training content

For example, trainees learn the following at the training company:

- how to process materials, e.g. by working or chipping;
- how to evaluate dysfunctions of the locomotor system;
- how to brief patients on the use and mode of operation of orthopaedic aids;
- how to evaluate clinical symptoms and the resulting care-specific aids;
- how to advise doctors and medical, nursing and therapeutic staff in relation to care using orthopaedic aids;
- how to take moulds of deformities, abnormalities and amputation stumps;
- how to create a digital, computer-based positive cast, taking account of measured values, for prosthetics, orthotics and assistive technology;
- what to bear in mind when adapting and fabricating aids such as bandages, trusses or corsets;
- how to assemble prosthetics and orthoses;
- how to maintain prosthetics, orthoses and walking/standing aids;
- and, in the specialist field of prosthetics,
- how to install and adjust pneumatically, hydraulically and electronically controlled joints;
- how to cosmetically customise prosthetics.

Furthermore, throughout the training programme, trainees learn about topics such as rights and obligations during training, the organisation of the training company and environmental protection.

At the part-time vocational school, trainees acquire further knowledge in job-specific areas of learning (e.g. adaptation of individual assistive technology, fabrication and adaptation of orthopaedic insoles), as well as in general subjects such as German, economics and social studies.

Training allowance

Examples (monthly, gross):
1st year of training: € 445
2nd year of training: € 505
3rd year of training: € 555

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