

Elektroniker/Elektronikerin für Betriebstechnik

■ Legal Name of the programme

According to the „Berufsbildungsgesetz“, the relevant German law for vocational training, this is a vocational training programme approved throughout the Federal Republic of Germany.

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Electronics technician for industrial engineering

■ Duration

As a rule the training course is 3,5 years long. It is (in rare cases) possible to reduce the duration to 3 or 2,5 years. The reduction is decided upon in each individual case by the Chamber of Industry and Commerce based on the educational background of the trainee.

The venues for training are company and part-time vocational school (Berufsschule).

■ Liability of charges (free or restrictions)

The training is free of charge

■ Position of national vocational training system

Usually the vocational training (as a first vocational training) follows a fulltime education in secondary school (first phase or second/advanced phase). The trainees come either from general educational schools or from vocational schools.

At the beginning of their training the trainees usually are between 16 and 21 years old.

■ Learning Locations

- Company: The respective training company (3-4 days/week)
- School: Vocational School (1-2 days/week)
- Locations apart from the companies: locations for teaching contents relevant for the company which cannot/can hardly be taught in the respective company (further training /courses of instruction by the Vocational Training Center)

■ Organisation responsible for this VET-programme

Further development is a common task for the organizations of employers, the Chamber of Industry and Commerce, the Federal Institute of Vocational Training („Bundesinstitut für Berufsbildung“) and – as concerns the schools – the „Conference of the Ministers of the Art and Culture“ as well as the responsible departments for schools in the federal states.

■ Preliminary – Prerequisites

From a legal point of view there are no preconditions to start a training course for this job.

A higher level of school education makes it possible to shorten the training from 3,5 to 3 years or even a minimum of 2,5 years. This is, however, always a decision in an individual case.

■ Additional competences which are part of this programme

At the schools as part of the dual training competences in the following fields are developed/advanced in the course of training:

- German/Communication
- Religious education
- Sports/Health Promotion
- Politics/Social Studies
- English Language

■ Examinations

In the course of the training there is one obligatory intermediate examination taking place in the middle of the training programme as well as the obligatory final examination at its end.

Intermediate Examinations

TODO

Final Examinations

TODO

School

At the vocational schools trainees can catch up on a middle school qualification („Fachoberschulreife“ = qualification of secondary school phase I. It qualifies for attendance of the second/advanced phase at a vocational school). Preconditions for this are the relevant subject range at the vocational school and the required marks.

■ Persons/Organisations responsible for the examination

The final examinations are planned by the respective Chambers of Industry and Commerce.

■ Certificates

1. The „IHK-Prüfungszeugnis“ (= the examination certificate of the Chamber of Industry and Commerce) as a document proving the successful completion of the training
2. A certificate of the vocational school as a documentation of school attendance and possibly of the school qualification (secondary school phase I, „middle“ school qualification as explained above)
3. „KMK-Fremdsprachenzertifikat“ (certificate attesting foreign language competences) in case the trainees has successfully completed the respective examination for this certificate.

■ What the certificate entitles to ...

The certificate entitles to bear the title „Electronics technician for industrial engineering“.

In the case of acquiring a middle school qualification there is the possibility to acquire further higher qualifications e.g. the „Abitur“ (secondary school qualification, phase II = advanced level).

■ Additional information¹

Field of activity

Electronics technicians for industrial engineering assemble, put into operation and maintain technical systems for power supply, measurement and control, communications, signalling, propulsion and lighting. Other tasks include the operation of these systems and facilities.

Typical fields of activity are electricity and power distribution facilities and networks, installations and networks in buildings, factory facilities, production and process engineering facilities, switch and control gear as well as electrotechnical equipment. Electronics technicians for industrial engineering work independently, observe the relevant regulations and safety rules and coordinate their work with the preceding and following activities. They often work as part of a team. They are qualified electricians within the meaning of the regulations for the prevention of accidents.

Occupational skills

Electronics technicians for industrial engineering

- accept electrical equipment;
- design equipment modifications and expansions;
- set up and clear away workplaces and building sites;
- organize the setting-up/assembly of plant; monitor the work of service providers and other trades;
- assemble and install wiring systems, information cables and power lines, including general supply lines;
- install and set machines and drive systems, including pneumatic/hydraulic components;
- assemble and wire up switchgear and automation systems;
- program and configure systems, test the functionality and safety facilities of systems;
- monitor and maintain plant, carry out regular checks, analyse faults, take immediate measures and repair equipment;
- hand over equipment, instruct users in its operation and provide services;
- also work with English-language documents and communicate in English.

¹ http://www.bibb.de/en/ausbildungsprofil_10698.htm