

# **CERTIFICATE SUPPLEMENT (\*)**



# 1. TITLE OF THE CERTIFICATE (DE).(1)

# Lehrabschlussprüfungszeugnis Elektromaschinentechnik

(1) in original language

# 2. TRANSLATED TITLE OF THE CERTIFICATE (EN) (2)

# Certificate of Apprenticeship "Mechatronics specialising in Electrical Machinery Engineering" (f/m)

(2) This translation has no legal status

#### 3. Profile of skills and competences

#### Basic and main module:

- · winding of coils, transformers and motors by hand and machine
- · insertion, switching and looping up of coils
- · elimination of malfunctions on mechatronic devices and machinery
- installation, commissioning and testing of mechatronic devices and machinery based on instructions and plans
- systematic search, localisation and elimination of faults, defects and malfunctions on mechatronic devices and machinery
- · maintenance and servicing of mechatronic devices and machinery
- performance of the work taking into consideration relevant safety and environmental standards
- appropriate written and oral command of language and specialist terminology as well as use of job-related foreign language

Training courses in one of the following special modules can be provided in addition to the basic and main module, with the aim of offering more in-depth know-how and specialisation.

## Special module Robotics:

- · programming of robots
- installation, configuration, commissioning, testing and documentation of robots and mobile robotic systems and their peripheral facilities
- systematic search, localisation and elimination of faults, defects and malfunctions on robots and mobile robotic systems and their peripheral facilities
- · maintenance and servicing of robots and mobile robotic systems and their peripheral facilities
- optimisation as well as implementation of adjustments and changes to robots and mobile robotic systems and their peripheral facilities
- · provision of advisory services to customers on issues related to the use and operation of robots

# Special module PLC Technology:

- planning of the structured programming of programs for programmable logic controllers (PLCs) independent of the controller type
- advanced programming according to IEC 61131-3 in all of the following programming languages: IL and ST as well as LD, FBD and SFC
- · systematic search, localisation and elimination of faults, defects and malfunctions of PLC programs
- programming of alternative programming systems
- optimisation as well as implementation of adjustments and changes to PLC programs based on the special requirements of their application
- provision of advisory services to customers on issues related to PLC programming and optimisation

# 4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE (3)

## Range of occupations:

Employment including in industrial and craft businesses of different industries, especially vehicle/motor engineering, mechanical engineering, tool construction, equipment and plant engineering, in manufacturing companies in electronics and electrical machinery engineering, in transport enterprises as well as in power supply companies

(3) if applicable

#### (\*) Explanatory note

This document has been developed with a view to providing additional information on individual certificates; it has no legal effect in its own right. These explanatory notes refer to the Decision (EU) 2018/646 of the European Parliament and of the Council of 18 April 2018 on a common framework for the provision of better services for skills and qualifications (Europass).

More information on Europass is available at: http://europass.cedefop.europa.eu or www.europass.at

5. OFFICIAL BASIS OF THE CERTIFICATE	
Name and status of the body awarding the certificate	Name and status of the national/regional authority providing accreditation/recognition of the certificate
Lehrlingsstelle der Wirtschaftskammer	Dun de aminista virus filis Aubeit un d'Alista de eft
(Apprenticeship Office of the Economic Chamber; for the address, see certificate)	Bundesministerium für Arbeit und Wirtschaft (Federal Ministry of Labour and Economy)
Level of the certificate (national or international)	Grading scale / Pass requirements
NQF/EQF 4 ISCED 35	Overall performance: Pass with Distinction Good Pass Pass Fail
Access to next level of education/training	International agreements
Access to the <i>Berufsreifeprüfung</i> (i.e. certificate providing university access for skilled workers) or a vocational college for people under employment.  Access to relevant courses at a <i>Fachhochschule</i> (i.e. university level study programme of at least three years' duration with vocational-technical orientation); additional examinations must be taken if the educational objective of the respective course requires it.	Between Germany, Hungary, South Tyrol and Austria, international agreements on the mutual automatic recognition of apprenticeship-leave examinations and other vocational qualifications have been concluded. Information on equivalent apprenticeship occupations can be obtained from the Federal Ministry of Labour and Economy.

### Legal basis

- 1. Training Regulation for Mechatronics BGBI. II (Federal Law Gazette) No. 196/2019 as amended by BGBI. II No. 315/2022 (company-based training)
- 2. Curriculum framework (education at the vocational school for apprentices)
- 3. The present apprenticeship trade replaces the apprenticeship trade Mechatronics (Training Regulation and Examination Regulation BGBI. II [Federal Law Gazette] No. 120/2015), which expired as of 31.07.2019.
- 4. The apprenticeship 'mechatronics' has been set up as a modular apprenticeship. Following the basic and main module automation engineering there is the option to provide training in one of the special modules (robotics, spstechnics, digital manufacturing engineering, additive manufacturing); one of the special moduls of the apprenticeship 'electrical engineering' (training regulation BGBI. II No. 195/2010 as amended by BGBI. II No. 148/2018) railway electrical engineering, railway security technology, railway vehicle technology, railway transport technology, railway vehicle maintenance, railway industrial engineering. Information on the main module is provided in the Certificate of Apprenticeship.

#### 6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

- 1. Training in the framework of the given Training Regulation for Mechatronics and of the curriculum of the vocational school for apprentices. Admission to the final apprenticeship examination upon completion of the apprenticeship period specified for the apprenticeship trade concerned. The final apprenticeship examination aims to establish whether the apprentice has acquired the skills and competences required for the respective apprenticeship trade and is able to carry out the activities particular to the learned trade herself/himself in an appropriate manner.
- 2. Admission to the final apprenticeship examination in accordance with Article 23 (5) of the *Berufsausbildungsgesetz* (Vocational Training Act). An applicant for an examination is entitled to sit the final apprenticeship examination without completing a formal apprenticeship training if she/he has reached 18 years of age and is able to prove acquisition of the required skills and competences by means of a relevant practical or an on-the-job training activity of appropriate length, by attending relevant courses etc.

### Additional information:

Entry requirements: successful completion of 9 years of compulsory schooling

**Duration of training:** Basic module and main module: 3.5 years; basic module, main module and further main module or special module: 4 years

**Enterprise-based training** Enterprise-based training comprises 4 /5 of the entire duration of the training and focuses on the provision of job-specific skills and competences according to Article 3 of the Training Regulation, BGBI. II

(Federal Law Gazette) No. 196/2019 as amended by BGBI. II No. 315/2022, enabling the apprentice to exercise qualified activities as defined by the profile of skills and competences specified above.

**Education at vocational school:** School-based education comprises  $^{1}/_{5}$  of the entire duration of the training. The vocational school for apprentices has the tasks of imparting to apprentices the basic theoretical knowledge, of supplementing their enterprise-based training and of widening their general education in the framework of subject-oriented part-time instruction.

**More information** (including a description of the national qualification system) is available at: <a href="https://www.zeugnisinfo.at">www.zeugnisinfo.at</a> and <a href="https://www.zeugni

National Europass Center: europass@oead.at

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