

1. TITLE OF THE CERTIFICATE (DE) ⁽¹⁾

Lehrabschlussprüfungszeugnis Labortechnik – Biochemie

⁽¹⁾ in original language

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

**Certificate of Apprenticeship “Laboratory Engineering
specialising in Biochemistry” (f/m)**

⁽²⁾ This translation has no legal status.

3. PROFILE OF SKILLS AND COMPETENCES

Basic and main module:

- reading and application of technical documents such as regulations related to analyses, formulations, procedural instructions, specifications, diagrams, etc. as well as production of simple sketches of experiments
- handling, maintenance and repair of the laboratory devices, apparatus and equipment to be used as well as handling of the chemicals used in laboratories by implementing the safety data sheets and the measures and procedures to be derived from them
- performance of company-specific sampling including preparation and processing of samples as well as separation processes for mixtures of liquids and solids
- application of disinfection and sterilisation methods
- application of the company's microbiological work methods such as production of culture media, application of vaccination and culture techniques, microscoping, isolating, colouring and differentiating of microorganisms, documenting of germ growth, and determination of germ counts
- application of the company's working methods related to cell cultures such as cultivating adhesion and suspension cells and determining the cell count
- application of the company's working methods related to molecular biology such as isolating nucleic acids from biological material, ligating and cutting of nucleic acids, electrophoretic separation and proof of nucleic acids
- application of the company's working methods related to biochemistry such as implementation of enzymatic tasks, processing of biological material, electrophoretic separation of protein mixtures, and cleaning of proteins
- logging and graphic evaluation of the results of work and their documentation, also by using the company's IT and statistical methods
- performance of work taking into consideration relevant norms as well as quality, safety and environmental standards
- appropriate written and oral command of language and specialist terminology as well as use of job-related foreign language

Training in the following special module can be attended in addition to the basic and main module, with the aim of acquiring more in-depth know-how and specialisation.

Special module laboratory automation:

- installation, commissioning and testing of automated laboratory systems
- installation and configuration of programs and development of simple programs
- switching on, switching off and operation of automated laboratory systems
- optimisation and implementation of adjustments and changes to automated laboratory systems
- systematic search, localisation and elimination of faults, defects and malfunctions on automated laboratory systems as well as their maintenance and servicing
- use of laboratory information and laboratory management systems

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE

Range of occupations:

Employment including in research, in-house, development and control laboratories of the pharmaceutical industry, food industry, biochemistry and biotechnology, in institutes and companies that are active in the environmental field, such as recycling or wastewater treatment companies, as well as in research departments of universities

(*) Explanatory note

This document is designed to provide additional information about the specified certificate and does not have any legal status in itself. 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 Lehrlingsstelle der Wirtschaftskammer (Apprenticeship Office of the Economic Chamber; for the address, see certificate)	Name and status of the national/regional authority providing accreditation/recognition of the certificate Bundesministerium für Arbeit und Wirtschaft (Federal Ministry of Labour and Economy)
Level of the certificate (national or international) NQF/EQF 4 ISCED 35	Grading scale / Pass requirements Overall performance: Pass with Distinction Good Pass Pass Fail
Access to next level of education/training Access to the <i>Berufsreifeprüfung</i> (i.e. certificate providing university access for skilled workers), a part-time industrial master college or a vocational college for people in 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.	International agreements International agreements on the mutual recognition of professional qualifications have been concluded between Germany, Hungary, South Tyrol and Austria. More information on this topic may be obtained from the Austrian Federal Ministry of Labour and Economy.
Legal basis <ol style="list-style-type: none"> 1. Training and Examination Regulation for Laboratory Engineering, BGBl. II (Federal Law Gazette) No. 118/2015 as amended by BGBl. II (Federal Law Gazette) No. 127/2016 (company-based training) 2. Curriculum framework (education at the vocational school for apprentices) 3. The present apprenticeship trade replaces the apprenticeship trade Chemical Laboratory Engineering (Training and Examination Regulation, Federal Law Gazette II No. 184/2000, as amended by Federal Law Gazette II No. 177/2005), which expired as of 31.05.2015. 4. The apprenticeship Laboratory Engineering has been set up as a modular apprenticeship. Following the basic and main module, there exists the option to provide training in a special module (see 3. profile of skills and competences) or an additional main module. Apprentices can select the additional main module chemistry. Information about the main modules is provided in the Certificate of Apprenticeship. 	

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

1. Training within the framework of the given Training Regulation for Laboratory Engineering 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 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 special module: 4 years

Company-based training: Company-based training comprises $\frac{4}{5}$ of the entire duration of the training. It aims to

provide qualified job-specific skills and knowledge according to Article 3 of the Training Regulation, Federal Law Gazette II No. 118/2015 as amended by BGBl. II (Federal Law Gazette) No. 127/2016 (cf. the profile of skills and competences specified above).

Education at vocational school: School-based education comprises $\frac{1}{5}$ of the entire duration of the training. The vocational school for apprentices has the tasks of imparting to apprentices the basic theoretical knowledge, supplementing their company-based training and widening their general education.

More information (including a description of the national qualification system) is available at:

www.zeugnisinfo.at, www.bildungssystem.at and www.bmbwf.gv.at

National Europass Center: europass@oead.at