europass

CERTIFICATE SUPPLEMENT (*)

Austria

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

Reife- und Diplomprüfungszeugnis der Höheren Lehranstalt für Maschinenbau, Ausbildungsschwerpunkt Robotics and Smart Engineering

(1) in original language

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

School Leaving Certificate and Diploma Certificate of the Higher Federal Technical College of Mechanical Engineering Specialist Subject Area: Robotics and Smart Engineering

(2) This translation has no legal status.

3. PROFILE OF SKILLS AND COMPETENCES

A typical holder of the certificate is able to

- carry out typical engineering activities in the fields of automation technology, such as design, engineering mechanics and calculation, manufacturing engineering, machine tools and equipment of automation engineering, robotics and process-data processing/real-time data processing
- communicate about technical and economic matters orally and in writing in the English language

apply typical engineering principles in the fields of:

- Design, calculation and realisation of components and assemblies in the mechanical engineering sector
- Application of 3D-parametric design software
- Selection of materials, manufacturing methods, machine tools and equipment
- Design, implementation and application of electrical, pneumatic and hydraulic systems
- Selection and programming of robotic systems
- In-depth knowledge of electrical engineering, automation technology, measuring, control and regulation technology
- In-depth knowledge of sensors, actuators, devices and programs for signal processing, as well as of complex systems of process control and process automation
- Planning, dimensioning and design of safety devices, implementation and documentation of independently working system parts, including industrial robots
- Creation, manipulation and linking of augmented reality models to IOT data
- Software development for processing and visualising real-time data
- Implementation of safety requirements
- Application of quality management, project management and process management

prepare to contribute their personal and social competences in the fields of interdisciplinary work and activities in management, as well as their problem-solving skills, capacity for teamwork, creativity, entrepreneurial thinking and acting, customer-orientation.

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

Range of occupations:

Technical expert and senior manager in the implementation and application of electrical, pneumatic and hydraulic systems, in programming, development, calculation and realisation of complex systems of process control and process automation. Engineer for quality assurance and maintenance of components and assemblies. Project manager. Senior employee and project leader.

Pursuit of regulated professions on a self-employed basis (www.gewerbeordnung.at)

(3) if applicable

(*) **Explanatory note**

This document is designed to provide additional information about the specified certificate and does not have any legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications, Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates, and Recommendation 2001/614/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers. More information on transparency is available at: http://europass.cedefop.eu.int/ or http://www.europass.at

5. OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the body awarding the certificate

Educational institution recognized by the State of Austria, for address see certificate

Name and status of the national/regional authority providing accreditation/recognition of the certificate

Federal Ministry of Education

Level of the certificate (national or international)

EQF/NQF 5
ISCED 55

Grading scale / Pass requirements

1 = excellent (excellent performance)
2 = good (good performance throughout)
3 = satisfactory (balanced performance)
4 = sufficient (performance meeting minimum pass levels)
5 = not sufficient (performance not meeting minimum pass levels)

In addition, the overall performance at the final exam is rated as follows:
Pass with distinction, Good pass, Pass, Fail

Access to next level of education/training

In accordance with the School Organisation Act (Schulorganisationsgesetz), Federal Law Gazette no. 242/1962 as amended, this certificate entitles holders to attend a university, a post-secondary VET course (Kolleg), and a post-secondary VET college (Akademie); in accordance with the Act on Fachhochschule Study Programmes (Bundesgesetz über Fachhochschul-Studiengänge), Federal Law Gazette no. 340/1993 as amended, to attend a Fachhochschule study programme; and in accordance with the 2005 Higher Education Act (Hochschulgesetz), Federal Law Gazette I no. 30/2006 as amended, to attend a university college of teacher education (Pädagogische Hochschule).

International agreements

- European Convention on the Equivalence of Diplomas leading to Admission to Universities, Federal Law Gazette no. 44/1957
- Convention on the Recognition of Qualifications concerning Higher Education in the European Region, Chapter IV, Federal Law Gazette III no. 71/1999
- Training completed with this certificate is a regulated education and training programme in accordance with Article 11, point (c) (ii) of Directive 2005/36/EC on the recognition of professional qualifications, as last amended by Directive 2013/55/EU. The level of training corresponds to point (c) of Article 11 of the Directive.

Legal basis

National curriculum, Federal Law Gazette II no. 262/2015 current version
Examination specification BMHS (concerning the final exams in vocational schools and colleges), Federal Law Gazette II no. 177/2012 current version

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

1. Training and education as defined by the National Curriculum for Secondary Colleges of Mechanical Engineering – Specialist Subject Area: Robotics and Smart Engineering
2. External certification as defined in Federal Law Gazette II no. 362/1979 current version

Additional information

Entry requirements: successful completion of school year 8; if necessary entrance examination

Duration of Education: 5 years

Duration of compulsory work placement: totally 8 weeks

Educational objectives: Intensive five-year initial training programme in occupation-related practice and occupation-related theory, as well as in general education subjects, technical-scientific and business-related subjects. Independent use of thinking methods as well as attitudes towards work and decision-making which qualify graduates to immediately exercise professions at executive level in the engineering, arts and crafts sector in industry and trade as well as to take up higher studies. Use of personal and social competences in the way they are required for modern forms of work and communication – including in multicultural teams. Modern frames of mind and attitudes to work such as a cosmopolitan approach, creativity and innovation capacity.

Subjects include: see List of Subjects in the Reifeprüfung-Certificate and VET-Diploma

More information (including a description of the national qualification system) is available at: http://www.certificate.at or at http://www.edusystem.at or at http://www.bmbwf.gv.at

National Reference Point: info@zeugnisinfo.at
National Europass Center: info@europass-info.at