



The candidates who have accomplished the criteria of the final examination will receive a **certificate of apprenticeship of Liechtenstein as well as a report card** and they have the right to assume this legally protected occupational title.



Liechtenstein

### 1. LEGALLY PROTECTED TITLE

## Technical Designer

### 2. DESCRIPTION

Technical designers develop ideas, notions and drafts together with engineers and technicians for their new technical products. They build single parts or construction groups for equipment, machines and systems as well as tools and appliances for the production. In the beginning will be a sketch which already contains the essential physical characteristics. After that the actual construction begins. The professionals mostly work on the computer using the CAD (computer aided design) program. They also use the computer to calculate, document and plan. Technical designers determine the geometric form, measurements and tolerances of the parts and help with the choice of the materials. They have a profound knowledge of the material properties and production processes. These professionals also have an understanding of technical processes and relations and a good imagination.

This translation does not have a legal status.

### 3. PROFESSIONAL AND SOCIAL COMPETENCES

Those who have completed this professional training successfully will have gained competence in producing technical documents and drawings, carrying out analyses and planning procedures, the realisation of construction processes and techniques as well as technologies in production, joining and assembling. Technical designers work independently or in teams with other professionals on work-related tasks, they have interdisciplinary abilities and work on assignments in different phases of realisation. Technical designers develop their own approach to dealing with technical problems, develop solutions and implement them. They document their assignment and present solutions.

### 4. PERSPECTIVE PROFESSIONAL FIELDS

The work area for technical designers is huge. Depending on the company and the product they work in areas of machine, appliance and assembling construction, precision engineering, electrical or electronic system engineering. They also create schemes, project drawings or specification drafts of electrical systems and controls. They calculate, draw, label, list, discuss, compile.

### 5. LEGAL BASIS OF THE CERTIFICATE OF ACCOMPLISHMENT

#### Authority issuing the certificate of apprenticeship

Liechtensteinisches Amt für Berufsbildung  
Postgebäude  
Postfach 22  
FL- 9494 Schaan

#### Status:

Department of vocational and educational training  
Liechtenstein  
Controlling institution according to the vocational training law.

#### International level (national and international) of the certificate

**ISCED3A** (CFC with general qualification for university entrance)  
**ISCED3B** (CFC without general qualification for university entrance)

#### Rating / rules of accomplishment

The performance is ranked from 6 to 1. 6 is the best mark. The mark 4 and higher indicates sufficient performance. The result of the exam is shown in a cumulative grade (mean value of the subjects). The exam is passed successfully if neither the subject mark "basic professional tasks" nor the cumulative grade is below 4 and a maximum of one of the subjects "final exam" or "practical knowledge" is graded as

	"insufficient".
<p><b>Next professional level</b>  <b>CFC ISCED3A</b> qualifies the holder to enter a higher vocational school with the aim to obtain the "Berufsmaturität" (final exam at a higher vocational school). After that one may attend technical colleges and universities in Austria, Switzerland and Liechtenstein.  <b>CFC ISCED3B</b> entitles the holder to enter vocational schools.</p>	<p><b>International treaties</b>  As member of the EEA  Member of the United Nations</p>
<p><b>Legal basis</b></p> <ul style="list-style-type: none"> <li>• Vocational and educational training law of the Principality of Liechtenstein of July 17<sup>th</sup> 1976</li> <li>• Decree of May 31<sup>st</sup> 1977 on acknowledgement of the Swiss professional training in Liechtenstein</li> <li>• Rules of procedure of vocational training and the final exam of the specific profession</li> </ul>	

## **6. OFFICIALLY ACKNOWLEDGED WAYS OF OBTAINING THE CERTIFICATE OF APPRENTICESHIP**

**Basis** Swiss regulations of vocational training of August 21<sup>st</sup> 1997

**Duration** 4 years

**Main focus** Technical Design

**Practical training** The practical training is structured as a wide range of basic training in the first half of the apprenticeship and is followed by a main focus training in productive applications and deepens the knowledge in at least one field of activity of the company. Part of the basic training of technical designers is to design technical documents with CAD as well as creating documentations with corresponding computer tools.

**Theoretical training** Level G = 1800 lessons, Level E = 2160 lessons

1 – 2 days per week at the vocational training centre (Level G and E)

**Profession related courses** technical basics, basics in natural science, technical English, material techniques, assembling techniques, drawing and machine techniques, automation, language and communication, society (law, politics, economy and culture), gymnastics and sports.

**Final examination taken at secondary vocational schools ("Berufsmatura")** commonly qualifies the holder to enrol at a technical college without an additional qualifying examination

**Diploma** Certificate of apprenticeship of Liechtenstein as "qualified Technical Designer"

### **Conditions for admission**

Completed secondary school **ISCED2PV** with good performance in geometry, maths, physics, or completed secondary school **ISCED2A**, or senior high school dropouts **ISCED2A**.

### **Candidate profile**

Good spatial sense, good analytic skills, good understanding of technical concepts, good understanding of mathematics, enjoying technical drawing and working on the computer, ability to plan and control situations, precise working, reliability, responsibility, ability to work in a team.