VOCATIONAL EDUCATION AND TRAINING STANDARD FOR A DENTISTRY TECHNICIAN

Vocational education level 5

Vilnius, 2008
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VOCATIONAL EDUCATION AND TRAINING STANDARD FOR A DENTISTRY TECHNICIAN

I. DETAILS OF THE VET STANDARD
1. Vocational Education and Training level – 5<sup>TH</sup>
2. State code – S572403
3. Qualification awarded – technician.

II. CONTENT OF THE VET STANDARD

5. Brief description of occupational activity

5.1. The VET Standard for a Dentistry technician (hereinafter referred to as “the Standard”) has been developed taking into account changes on the labour market, findings of the qualification study carried out by the Standards Development Working Group and based on the experience of other countries. The present Standard serves as a basis for the development of a training programme of vocational education level 5.

5.2. The Standard defines the minimum training requirements for a dentistry technician for working in the following main activity areas: choosing materials, equipment and technologies; manufacturing of dental prosthesis and orthodontic appliance; organisation of dentistry technician’s laboratory activity.

5.3. A dentistry technician works in small, medium and large dental prosthesis laboratories.

5.4. A dentistry technician under the acquired professional qualification works in cooperation with a dentist orthopaedist and other dental specialists and independently manufactures dental prosthetics for the customer, orthodontic appliances, carries out complicated tasks in applying new dental prosthetic manufacturing technologies, teaches how to look after dental prostheses and appliances.

5.5. A dentistry technician may manufacture prosthesis on his/ her own, organise the business and hire people for the carrying out of some work stages or from the final to the last stage of dental prosthesis manufacture; may enter into contracts with dental clinics and manufacture all type of dental prostheses; may work with the students during their internship and later employ them.

5.6. When manufacturing dental prosthesis and appliances, a dentistry technician applies the materials used for dental prosthesis and manufacture of dental equipment, their properties and opportunities, the working tools and equipment used to manufacture dental prosthesis and is able to use them safely, applies the technology with regard to the type of the manufactured dental prosthesis or orthodontic appliance, eliminates the possible prosthesis manufacture drawbacks and the already produced dental prosthesis and orthodontic appliance.

5.7. Successful work of a dentistry technician requires the following personal qualities: honesty, communication skills, creativity, thoroughness, neatness, physical and psychological stamina.

6. The objective of a dentistry technician – independently manufacture all type of dental prostheses, orthodontic appliance.

7. Dentistry technician’s activity areas and competences are listed in Appendix 1 of the Standard.
8. The scope of a dentistry technician’s competences, training objectives and competence assessment are provided in Appendix 2 of the Standard.

9. Successful work as a dentistry technician requires the following general capabilities:
   9.1. responsibility;
   9.2. organisation skills;
   9.3. creativity;
   9.4. independent decision making;
   9.5. team work skills;
   9.6. discretion;
   9.7. tolerance;
   9.8. mathematic literacy;
   9.9. computer literacy.

10. Final qualification assessment:
    10.1. Qualification of a dentistry technician is awarded to a student who has completed the whole training programme, acquired competences defined in the Standard and has been given a positive final qualification evaluation.
    10.2. In accordance with the competence assessment criteria listed in the Standard, the following is tested and evaluated:
      10.2.1. during the training process - all competences defined in the Standard;
      10.3. during the final qualification assessment - selected competences.

Organisation and performance of the final qualification assessment and issuance of documents is regulated by the Ministry of Education and Science of the Republic of Lithuania.
Appendix 1
to the VET Standard for a dentistry technician

**AREAS OF ACTIVITY AND COMPETENCIES OF A DENTISTRY TECHNICIAN**

<table>
<thead>
<tr>
<th>Areas of Activity</th>
<th>Competencies</th>
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<tbody>
<tr>
<td>1. Choosing of materials, equipment and technologies</td>
<td>1.1. Choosing the materials for the manufacturing of dental prosthesis or orthodontic appliance</td>
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<tr>
<td></td>
<td>1.2. Safely working with the dental prosthesis manufacturing work tools and equipment</td>
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<tr>
<td></td>
<td>1.3. Applying relevant technologies for the production of dental prostheses and orthodontic appliance</td>
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<tr>
<td>2. Manufacture of dental prostheses and orthodontic appliance</td>
<td>2.1. Modelling and designing dental prostheses</td>
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<td></td>
<td>2.2. Manufacturing dental prostheses and orthodontic appliance</td>
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<tr>
<td></td>
<td>2.3. Fixing dental prostheses and orthodontic appliance</td>
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<td>2.4. Cooperating with a dentist</td>
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<tr>
<td>3. Organisation of dentistry technician laboratory activity</td>
<td>3.1. Organising the work of the laboratory</td>
</tr>
<tr>
<td></td>
<td>3.2. Improving professional qualification</td>
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</table>
## Limits of Dentistry Technician’s Competences, Training Objectives and Competence Assessment

<table>
<thead>
<tr>
<th>Activity Areas</th>
<th>Description of Competencies</th>
<th>Training Objectives</th>
<th>Competence Assessment</th>
</tr>
</thead>
</table>
| 1. Choosing of materials, equipment and technologies | 1.1. Choosing the materials for the manufacturing of dental prosthesis or orthodontic appliance | 1.1.1. Recognising relevant material.  
1.1.2. Choosing relevant materials with regard to individual needs  
1.1.3. Knowing the hazard levels of different materials  
1.1.4. Safely working with materials  
1.1.5. Knowing the properties of substances used for manufacture of prosthesis and equipment  
1.1.6. Assessing the quality of materials and technological equipment | Described substance chemical, physical properties.  
Described metal alloys, plastic, ceramics technologies.  
Analysed main application possibilities of impress mass, wax, plaster, abrasive materials.  
Demonstrated disinfection and sterilisation stages.  
Listed and described hazardous materials. |
| 1.2. Safely working with the dental prosthesis manufacturing work tools and equipment | 1.2.1. Knowing the workplace, environment requirements  
1.2.2. Assessing the accident, professional disease risk  
1.2.3. Knowing main fire precaution requirements  
1.2.4. Choosing relevant personal protection tools | Analysed work environment and work place requirements.  
Described possible accidents and professional diseases.  
Demonstrated personal protection |
| | | 2.1.1. Knowing the morphological dental form of an upper and lower jaw |
| | | 2.1.2. Preparing prosthesis sample and manufacturing the models |
| | | 2.1.3. Assessing the position of teeth in an arch |
| | | 2.1.4. Understanding the biomechanics of masticatory apparatus |
| | | 2.1.5. Modelling wax construction of removable and fixed dental prostheses and designing wire constructions of orthodontic appliance |

1.3. Applying relevant technologies for the production of dental prostheses and orthodontic appliance

- Equipment and tools for the manufacturing of removable and fixed orthodontic appliance. Dental prostheses and orthodontic appliance manufacturing technologies.

- 1.3.1. Knowing dental prostheses and orthodontic appliance manufacturing technologies

- 1.3.2. Assessing the quality of technological equipment

- 1.3.3. Knowing the properties of materials used to manufacture prostheses and equipment

Described dental prostheses and orthodontic appliance manufacture technologies. Demonstrated equipment and tool application when manufacturing removable and fixed dental prostheses and orthodontic appliance.
### 2.2. Manufacturing dental prostheses and orthodontic appliance

<table>
<thead>
<tr>
<th>Equipment and tools for manufacturing of removable and fixed orthodontic appliance.</th>
<th>2.2.1. Knowing exact manufacturing methodology of dental prosthesis and orthodontic appliance.</th>
<th>Demonstrated application of equipment and tools when producing removable and fixed dental prostheses and orthodontic appliance.</th>
</tr>
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<tbody>
<tr>
<td>Manufacturing principles of removable and fixed dental prostheses and orthodontic appliance (liners, covers, metal liners, plastic braces, metal braces, mould braces with intermediary part, metal ceramics prostheses, metal plastics prostheses, non-metal ceramics prostheses, removable prostheses for pulpless jaws, removable prostheses with partial defects, removable arch</td>
<td>2.2.2. Establishing the relation of jaws and teeth</td>
<td>Correctly chosen manufactured dental prosthesis or orthodontic appliance.</td>
</tr>
<tr>
<td>2.2.3. Assessing individual patient dental features</td>
<td>2.2.4. Planning and designing quality dental prostheses and orthodontic appliance</td>
<td>Explained the exact methodology of dental prosthesis and orthodontic appliance.</td>
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<tr>
<td>2.2.5. Being aware of aesthetic dental prosthesis and orthodontic appliance features</td>
<td>2.2.6. Applying equipment and tools in the manufacturing process of removable and fixed dental prostheses and orthodontic appliance</td>
<td>Assessed aesthetic dental prosthesis and orthodontic appliance.</td>
</tr>
</tbody>
</table>
| 2.3. Fixing dental prostheses and orthodontic appliance | Manufacturing defects of removable and fixed prosthesis and orthodontic appliance. Defect elimination technologies. | 2.3.1. Establishing defects and imprecision of dental prostheses and orthodontic appliance.  
2.3.2. Choosing relevant materials for the elimination of defects.  
2.3.3. Applying tools and equipment for the elimination of imperfections. | Described drawbacks of prosthesis. Fixed prosthesis. |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| 2.4. Cooperating with a dentist | Team of dental care specialists: duties of the team members; rights, functions, responsibilities | 2.4.1. Integrating into teal dental care activity.  
2.4.2. Applying team work principles.  
2.4.3. Assessing the influence of negative factors at work and knowing the ways of dealing with them and prevention. | Analysed team work activity in line to the requirements of all team members.  
Analysed special work situation and fair decision made.  
Described stress and conflict situations at work, analysed ways of dealing with them. |
| 3. Organisation of dentistry technician laboratory activity | Establishment of a laboratory, articles of association, legal regulation: Ministry of Health Care regulating legal documents. Laboratory, its work. Laboratory commercial activity. | 3.1.1. Knowing the legal acts regulating the establishment and activity of a laboratory, laboratory management and organisation.  
3.1.2. Handling work and medical documentation.  
3.1.3. Supplying laboratory with relevant materials and work tools.  
3.1.4. Organising team work. | Described the procedure of laboratory establishment.  
Described strategic and operational plans.  
In accordance to the provided data, organisation external |
3.2. Improving professional qualification

- Development of professional skills and knowledge: practical and theoretical courses, seminars, conferences, traineeships.
  - Development of general competencies: computer literacy, foreign languages.

3.2.1. Accumulating information about the achievements of new dental techniques and other sciences and their application in the practise of a dentistry technician

3.2.2. Applying information communication technologies

3.2.3. Being aware of database launching and management principles, their application in the work of the laboratory

3.2.4. Improving foreign language skills in everyday and professional field

- Summarised industrial practise results.
- Drafted qualification development programme.
- Demonstrated ability to collect, process data with Word, Excel programmes and electronic databases.
|          |          |          | foreign language skills in professional work. |