

# OCCUPATIONAL STANDARDS

## Assistive Technology Specialist, Level 5

**Occupational Standards are documents** that describe the work, the set of skills, knowledge and attitudes or competency requirements for successful performance of the work.

**Assistive Technology Specialist, level 5** is the basis for the compilation of training programs and educational programs meeting the demands of the labor market and for assessment of the competency of persons.

<b>Title of the occupational qualification</b>	<b>Estonian Qualifications Framework (EQF) level</b>
<i>Assistive Technology Specialist, Level 5</i>	5
<b>Possible specializations and titles on the occupational qualification certificate</b>	
<b>Specialization</b>	<b>Title of the occupational qualification certificate</b>
<b>Works with aids for compensatory visual impairment</b>	<b>Vision Assistive Technology Specialist, Level 5</b>
<b>Works with aids for compensatory hearing impairment</b>	<b>Hearing Assistive Technology Specialist, Level 5</b>
<b>Works with orthopedic aids</b>	<b>Orthopedic Assistive Technology Specialist, Level 5</b>
<b>Works with aids for compensatory movement impairment</b>	<b>Movement Assistive Technology Specialist, Level 5</b>
<b>Works with speech and communication aids</b>	<b>Speech and Communication Assistive Technology Specialist, Level 5</b>
<b>Works with welfare and hygiene aids</b>	<b>Welfare and Hygiene Assistive Technology Specialist, Level 5</b>
<b>Operational Environmental Assessment and Adaptation</b>	<b>Operational Environmental Assessment and Adaptation Assistive Technology Specialist, Level 5</b>

## Part A DESCRIPTION OF WORK

### **A.1 Description of Work**

The objective of the work of the assistive technology specialist is compensation for the impairments arising of the person's problems at work and operational capability by selection, adaptation or manufacturing of a suitable assistive device.

The adaptation assistive technology specialist assesses the need for and efficacy of assistive tools that support human coping, selects the assistive device and adjusts and/or manufactures the assistive device (See Annex 1 for a list of assistive devices).

The level 5 assistive device specialist works as planned and effectively. Very important is collaboration with other specialists.

The assistive technology specialist complies in his or her work with professional ethics, principles of lifelong learning, complements himself or herself constantly professionally and is familiar with professional innovations. Uses in his or her work evidence-based assessment methods.

The assistive technology specialist can work in an establishment providing assistive technology service, in rehabilitation, health care, social care or educational institution.

### **A.2 Work Units**

#### **A.2 WORK UNITS**

A.2.1 Assessment of the need for the assistive technology devices and the selection and recommendation of an assistive technology device.

1. Being guided by the dysfunction(s) highlighted in health and rehabilitation information.
2. Compensation of the impairments arising of the person's problems of work and operational capability.
3. Assessing the need for an individual assistive technology device.
4. Recommendation and selection of an assistive technology device compensating for the disorder of a person's operational capability and supporting the operating environment.

A.2.2 Testing, customization, manufacture of an assistive technology device.

1. Determination of person based criteria and parameters of an assistive technology device.
2. Identification of the funding opportunities for an assistive technology device.
3. Selection/manufacture/adaptation of a suitable assistive technology devices.
4. Coordination of the testing period and the form of use of an assistive technology device.
5. Teaching of the use of an assistive technology device.
6. Planning of the care of an assistive technology device.

A.2.3 Assessment of the effectiveness of the use of an assistive technology device.

1. Determining the follow-up evaluation period and time.
2. Person's satisfaction with the assistive technology device and evaluation of the effectiveness of the assistive technology device.
3. Analysis of the compensation of the impairments arising of the person's problems with work and operational capability.

A.2.4 Customer service.

1. Communication with the client.
2. Adherence to the principles of confidentiality.
3. Understanding cultural diversity.
4. Adaptation of the communication style.
5. Showing respect for cultural and religious differences.

#### A.2.5 Networking

1. Cooperation
2. Initiation and/or promotion of cooperation.

#### A.2.6 Documentation

1. Documentation
2. Adherence to the requirements set for the persons processing sensitive personal data.

#### **WORK UNITS RELATED TO SPECIALISATION:**

A.2.7 Visual assistive technology devices.

A.2.8 Hearing assistive technology devices.

A.2.9 Orthopedic assistive technology devices.

A.2.10 Movement assistive technology devices.

A.2.11 Speech and communication assistive technology devices.

A.2.12 Welfare and hygiene assistive technology devices.

A.2.13 Operational environmental assessment and adaptation.

#### **A.3 Working environment and the specificity of the work**

The assistive technology specialist works with people with temporary or permanent dysfunctions, collaborates with health, education and social sector specialists, and the person's next of kin or network.

The work environment can be a company or the person's home, work or learning environment.

#### **A.4 Work equipment**

The main tools for the assistive technology specialist are assessment tools, measuring instruments, testing equipment according to his or her area, and commonly used communication tools.

#### **A.5 Personal characteristics necessary for the work: aptitude and personality traits**

In the work of an assistive technology specialist, empathy, cooperation, sense of responsibility, ability to communicate and technical sharpness are important.

#### **A.6 Professional training**

The occupational qualification of an assistive technology specialist requires at least secondary education and the acquisition of the competences described in the occupational qualification standards through practical work and professional continuing education.

#### **A.7 The most common job titles**

The most common titles are: assistive technology specialist, prosthesis/orthosis technician, communications equipment specialist, visual assistive technology devices specialist, hearing assistive technology devices specialist, advisor on incontinence devices and specialist of environmental adaptations.

## Part B

### COMPETENCY REQUIREMENTS

#### B.1. Structure of the occupational qualification

Upon the application of these occupational qualifications, the following competencies need to be certified:

Mandatory competencies for all B.2.1 - B.2.6, transversal competency B.2.14 and at least one of the following competencies related to the specialization:

B.2.7 Visual assistive technology devices.  
 B.2.8 Hearing assistive technology devices.  
 B.2.9 Orthopedic assistive technology devices.  
 B.2.10 Movement assistive technology devices.  
 B.2.11 Speech and communication assistive technology devices.  
 B.2.12 Welfare and hygiene assistive technology devices.  
 B.2.13 Operational environmental assessment and adaptation

#### B.2 Competencies

##### MANDATORY COMPETENCIES

<b>B.2.1 Assessment of the need for an assistive technology device and the selection and recommendation of an assistive technology device.</b>	<b>ECT Level 5</b>
<u>Performance indicators:</u> <ol style="list-style-type: none"> <li>1) Upon evaluation, the client is guided by the dysfunction(s) highlighted in health and rehabilitation information;</li> <li>2) Evaluates the compensation of the impairments arising of the person's problems at work and operational capability, with the suitable methods of evaluation;</li> <li>3) Assesses the person's need for an individual assistive technology device in the field of his or her specialization;</li> <li>4) On the basis of evaluation results, recommends and selects an assistive technology device compensating for the disorder of a person's operational capability and supporting the operating environment.</li> </ol>	
<u>Knowledge:</u> <ol style="list-style-type: none"> <li>1) Evidence-based methods for the need and efficiency of the assistive technology device;</li> <li>2) Principles for determining an assistive technology device (methods of assessment of the standardized assistive technology device);</li> <li>3) Principles of assessment/adaptation of the operational environment.</li> </ol>	
<b>B.2.2 Testing, customization, manufacture of an assistive technology device</b>	<b>ECT Level 5</b>
<u>Performance indicators:</u> <ol style="list-style-type: none"> <li>1) Based on the results of evaluation, determines the person based criteria and parameters of an assistive technology device.</li> <li>2) Identifies the opportunities for funding of the assistive technology device, interviewing the person and making inquiries in the relevant institutions;</li> <li>3) Based on the evaluation results and the parameters of the assistive technology device necessary for a person, selects/manufactures/adapts the appropriate assistive technology device;</li> <li>4) Coordinates the testing period and the form of use of an assistive technology device (rent or</li> </ol>	

<p>purchase);</p> <p>5) Teaches the person and/or his or her support network to use the acquired assistive technology device, using appropriate communication methods and being based on the user manual of the assistive technology device;</p> <p>6) Planning of the care of the assistive technology device in cooperation with the person, other professionals and the network.</p>
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<b>B.2.3 Assessment of the effectiveness of the use of an assistive technology device.</b>	<b>ECT Level 5</b>
<u>Performance indicators:</u>	
<ol style="list-style-type: none"> <li>1) Determines the follow-up evaluation period and time, based on the objective and the need of determination for the assistive technology device.</li> <li>2) Using the appropriate evaluation forms and methods, assesses the person's satisfaction with the assistive technology device and the efficiency of the assistive technology device (for example, in case of simpler assistive technology devices in the form of a telephone interview, in case of more complex assistive technology devices, in the form of a visit to the operating environment, etc.);</li> <li>3) If a problem occurs, analyzes again the compensation and coping of the impairments resulting from the problems at the person's work and operating capability, and if necessary, adjusts the existing assistive technology device, or proposes for an acquisition of a new assistive technology devices and assists the person.</li> </ol>	
<u>Knowledge:</u>	
<ol style="list-style-type: none"> <li>1) Principles for providing feedback;</li> <li>2) Principles for counseling;</li> </ol>	

<b>B.2.4 Customer service</b>	<b>ECT Level 5</b>
<u>Performance indicators:</u>	
<ol style="list-style-type: none"> <li>1) Communicates with customers in a friendly way and on the basis of good practice;</li> <li>2) Communication with third parties is based on the principles of confidentiality;</li> <li>3) Understands the diversity of cultures and is tolerant;</li> <li>4) Is able to adapt his or her communication style to different situations and people;</li> <li>5) Shows respect for cultural and religious differences.</li> </ol>	
<u>Knowledge:</u>	
<ol style="list-style-type: none"> <li>1) Principles for providing feedback;</li> <li>2) Principles for counseling;</li> </ol>	

<b>B.2.5 Networking</b>	<b>ECT Level 5</b>
<u>Performance indicators:</u>	
<ol style="list-style-type: none"> <li>1) Collaborates with the person and/or his or her support network;</li> <li>2) Initiates and/or promotes co-operation (advises, communicates, shares information, submits queries, participates in team work) with institutions (such as public institutions, local governments, the Unemployment Insurance Fund, insurance companies, companies mediating assistive technology devices, etc.)</li> </ol>	
<u>Knowledge:</u>	
<ol style="list-style-type: none"> <li>1) Data collection methods and techniques (interviews, observation, database searching, network search, preparing queries, etc.);</li> <li>2) Various data transmission channels;</li> <li>3) Bases for networking;</li> </ol>	

<b>B.2.6 Documentation</b>	<b>ECT Level 5</b>
<u>Performance indicators:</u>	
<ol style="list-style-type: none"> <li>1) Documents the activities related to the person and the assistive technology devices;</li> <li>2) Adheres to the requirements set for the persons processing sensitive personal data.</li> </ol>	
<u>Knowledge:</u>	
<ol style="list-style-type: none"> <li>1) Basics for documentation.</li> </ol>	

## COMPETENCIES RELATED TO SPECIALISATIONS

<b>Visual assistive technology devices</b>	
<b>B.2.7 Selection and recommendation of visual assistive technology devices.</b>	<b>ECT Level 5</b>
<u>Knowledge:</u>	
<ol style="list-style-type: none"> <li>1) Human physiology, functional anatomy, construction of the eye;</li> <li>2) The most common eye diseases, visual functions and their damage;</li> <li>3) Principles for testing visual functions;</li> <li>4) Parameters and properties of the assistive technology devices improving visual functions and visual ability and compensating for the lack of vision;</li> <li>5) Product categories corresponding to ISO Classification of assistive technology devices and the production offered by suppliers;</li> <li>6) Limitations of coping, work and operational capability arising from the person's special needs in his or her specific field;</li> <li>7) Principles of operational environmental assessment/adaptation and universal design.</li> </ol>	

<b>Hearing assistive technology devices</b>	
<b>B.2.8 Selection and recommendation of hearing assistive technology devices.</b>	<b>ECT Level 5</b>
<u>Knowledge:</u>	
<ol style="list-style-type: none"> <li>1) Human physiology, functional anatomy;</li> <li>2) Product categories corresponding to ISO Classification of assistive technology devices and the production offered by suppliers;</li> <li>3) Limitations of coping, work and operational capability arising from the person's special needs in his or her specific field;</li> <li>4) Principles of operational environmental assessment/adaptation and universal design.</li> </ol>	

<b>Orthopedic assistive technology devices</b>	
<b>B.2.9 Recommendation, selection and manufacture of orthopedic assistive technology devices.</b>	<b>ECT Level 5</b>
<u>Knowledge:</u>	
<ol style="list-style-type: none"> <li>1) Technical parameters and properties of different types of orthosis and prostheses;</li> <li>2) Human physiology, functional anatomy, and biomechanics; the most common orthopedic pathologies;</li> <li>3) Different orthosis and prosthetic materials, their properties, and the possibilities of adaptation thereof according to the customer's needs;</li> <li>4) Technical orthopedic care systems, their planning and implementation;</li> <li>5) Personal mobility assessment principles;</li> <li>6) Product categories corresponding to ISO Classification of assistive technology devices and the production offered by suppliers;</li> </ol>	

- 7) Limitations of coping, work and operational capability arising from the person's special needs in his or her specific field.

**Movement assistive technology devices**

**B.2.10 Recommendation, selection and manufacture of movement assistive technology devices.**

**ECT Level 5**

Knowledge:

- 1) Technical parameters and properties of movement assistive technology devices;
- 2) Human physiology, functional anatomy and biomechanics;
- 3) The most common pathologies of movement function;
- 4) Personal mobility assessment principles;
- 5) Areas of ISO classification related to personal mobility and skills (e.g., main groups 05, 06, 12, 15 and 30);
- 6) Product categories corresponding to ISO Classification of assistive technology devices and the production offered by suppliers;
- 7) Limitations of coping, work and operational capability arising from the person's special needs in his or her specific field;
- 8) Principles of operational environmental assessment/adaptation and universal design.

**Speech and communication assistive technology devices**

**B.2.11 Recommendation, selection and manufacture of speech and communication assistive technology devices.**

**ECT Level 5**

Knowledge:

- 1) Human physiology and functional anatomy;
- 2) Product categories corresponding to ISO Classification of assistive technology devices and the production offered by suppliers;
- 3) Limitations of coping, work and operational capability arising from the person's special needs in his or her specific field.

**Welfare and hygiene assistive technology devices**

**B.2.12 Recommendation, selection and adaptation of welfare and hygiene assistive technology devices.**

**ECT Level 5**

Knowledge:

- 1) Personal self-care and protection assistive technology devices, their use;
- 2) Pathologies and conditions causing the need for welfare and hygiene assistive technology devices;
- 3) Human physiology and functional anatomy and biomechanics;
- 4) Product categories corresponding to ISO Classification of assistive technology devices and the production offered by suppliers;
- 5) Limitations of coping, work and operational capability arising from the person's special needs in his or her specific field;
- 6) Principles of assessment/adaptation of the operational environment.

**Operational Environmental Assessment and Adaptation**

**B.2.13 Assessment and adaptation of the operational environment.**

**ECT Level 5**

Knowledge:

- 1) Principles of operational environmental assessment/adaptation and universal design;

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- 2) Requirements for ensuring the mobility of people with mobility, vision and hearing impairment;
- 3) Instructional material of creation and design of an inclusive living environment;
- 4) Physiological hazards of the work environment;
- 5) Human physiology, functional anatomy and biomechanics;
- 6) Pathology (on a basic level);
- 7) Disability-specific environmental improvement assistive technology devices;
- 8) Product categories corresponding to ISO Classification of assistive technology devices and the production offered by suppliers;
- 9) Limitations of coping, work and operational capability arising from the person's special needs in his or her specific field.

### TRANSVERSAL COMPETENCIES

<b>B.2.14 Transversal competency of Assistive Technology Device Specialist, Level 5</b>	<b>ECT Level 5</b>
<u>Performance indicators:</u> <ol style="list-style-type: none"> <li>1) Is based on his or her work of ethical beliefs and values;</li> <li>2) Shows interest and understanding, consults with other specialists and initiates communication;</li> <li>3) Is oriented to the satisfaction of customer needs and achievement of customer's satisfaction;</li> <li>4) Works systematically, methodically and regularly;</li> <li>5) Can withstand the intense and complicated, complex situations and contexts;</li> <li>6) Uses the possibilities of technology to meet the operational objectives;</li> <li>7) Offers a variety of alternatives for solving problems;</li> <li>8) In the work uses a computer at the level AO1-O4, AO7 and AO12 (see Annex 1).</li> <li>9) Uses in his or her work the Estonian language at level B1 and one foreign language at level A2 (see Annex 2).</li> </ol>	
<u>Knowledge:</u> <ol style="list-style-type: none"> <li>1) Methods of the evaluation of a person's operating capability (International Classification of Functioning, Disability and Health (ICF));</li> <li>2) Areas of ISO classification and coding system;</li> <li>3) Occupational qualification related legislation;</li> <li>4) Basics of team work.</li> </ol>	



ESF program "Development of the system of qualifications"

## Part C

### GENERAL INFORMATION AND ANNEXES

<b>C.1 Information for preparation and approval of the occupational standard, on the awarding body and a reference to the location of the occupational standard in the classifications</b>	
1. The marking of the occupational standard in the occupational qualification register	05-15102013-09/2k
2. The occupational qualification standard compiled by: the names of people and organizations	Olga Ilgina, Estonian Deafblind Association Andrus Ilves, Tervise Abi OÜ Tiia Sihver, the Estonian Unemployment Insurance Fund Hille Maas, Tallinn University Ligita Haavik, Tervise Abi OÜ Linnu Mae, Tondi Basic School Marko Tilk, Gadox AS Kadri Soosalu, Astangu Vocational Rehabilitation Centre Piret Põllu, Estonian Association of Parents of Hearing Impaired Children Kirstie Pedak, Tallinn University, Tallinn Children's Hospital
3. Occupational qualification standard approved by	Professional Council of Healthcare and Social Work
4. Professional Council Decision No.	16
5. Date of Professional Council Decision.	15.10.2013
6. Occupational standard valid until (date)	15.10.2018
7. Occupational standard version number	2
8. Reference to the Classification of Occupations (ISCO 08)	Health associate professionals, Code 32
9. Reference to the European Qualifications Framework (EQF)	5
<b>C.2 Occupational title in a foreign language</b>	
English: <i>Assistive Technology Specialist (ATS)</i>	
<b>C.3 Annexes</b>	
Annex 1 List of assistive technologies according to the ISO classification	
Annex 2 Computer skills (ECDL/ICDL)	
Annex 3 Language skill levels and descriptions	

**List of assistive technology according to the ISO classification**

<b>CODE</b>	<b>Product Groups</b>
<b>04</b>	<b>Assistive technology for treatment</b> Assistive technology that helps to improve, monitor and maintain the patient's health status
<b>05</b>	<b>Assistive technology for skills training</b> Including assistive technology for developing physical, mental and social skills
<b>06</b>	<b>Orthoses and prostheses</b> Prostheses and prosthetic devices are devices that are externally attached to replace in whole or in part the missing or defective parts of the body; including external orthosis and external prostheses applied with the body force and the external force, orthopedic shoes
<b>09</b>	<b>Personal self-care and protection assistive technology devices</b> Assistive technology for those suffering incontinence and with the persons operated on with a stoma; including assistive technology for putting on and taking off clothes, clothes, shoes, body thermometers, clocks, watches, and scales. Assistive technology for eating and drinking
<b>12</b>	<b>Assistive technology for personal mobility</b>
<b>15</b>	<b>Assistive technology for household chores</b>
<b>18</b>	<b>Furnishings and adaptation of household and other facilities</b> Including recreation and/or room furniture (with or without wheels), furniture accessories, tools and appliances for adaptation of living, working and learning spaces
<b>21</b>	<b>Communication, information, and signaling equipment</b> Including assistive technology for reading, writing, and giving security alerts
<b>24</b>	<b>Tools for handling products and goods</b>
<b>30</b>	<b>Assistive technology for entertainment</b>