

OCCUPATIONAL QUALIFICATION STANDARD

Junior IT Systems Specialist, EstQF Level 4

An occupational qualification standard is a document which describes the set of skills, knowledge and attitudes, i.e. competence requirements, needed to successfully accomplish duties. Occupational qualification standards are used for compiling curricula and awarding qualifications.

Occupational title	Level of Estonian Qualifications Framework (EstQF)
Junior IT Systems Specialist, EstQF Level 4	4

Possible partial professional qualifications and titles on occupational qualification certificate	
Title of partial professional qualification	Level of Estonian Qualifications Framework (EstQF)
Help Desk Technician, Level 4	4
IT Technician, Level 4	4
IT Administrative Technician, Level 4	4

Part A DESCRIPTION OF WORK

A.1 Description of work The Junior IT Systems Specialist works independently in an assigned stage of work following the rules of procedure, best practices and good customer service practice. They can, for example, work as a customer support specialist, IT support person, monitoring specialist, IT technician or system administrator. The main tasks of a Junior IT Systems Specialist are IT infrastructure development, system management, solution implementation, documentation production, user support, change support, solving standard IT problems, service delivery and information security support. It is necessary to be prepared to work in a team and deal with conflict situations. The ability to perform multiple tasks simultaneously is necessary in the work of a junior IT systems specialist. The field is developing rapidly; therefore, continuous self-improvement is essential. Junior IT Systems Specialist, Level 4 occupation contains partial occupational qualifications for User Support Technician, Level 4, IT Technician, Level 4 and IT Administrative Technician, Level 4. The European ICT Competence Framework (e-CF) is the basis for describing the Junior IT Systems Specialist occupation.
A.2 Tasks A.2.1 IT infrastructure development (e-CF competences A.4, A.6 & B.1) A.2.2 System management and solution deployment (e-CF competences B.2 & B.4) A.2.3 Testing (e-CF competence B.3) A.2.4 Documentation production (e-CF competence B.5) A.2.5 User support (e-CF competence C.1) A.2.6 Incident management (e-CF competence C.1) A.2.7 Service Request management (e-CF competence C.1) A.2.8 Change support (e-CF competence C.2) A.2.9 Service delivery (e-CF competences C.3 & E.6) A.2.10 Problem management (e-CF competence C.4) A.2.11 Guidance and personnel development (e-CF competences D.3 & D.9) A.2.12 Relations with suppliers and clients (e-CF competences D.4, D.5, D.8 & E.4) A.2.13 Project and risk management (e-CF competences E.2 & E.3) A.2.14 Information security management (e-CF competence E.8)

A.3 Professional preparation

The usual vocational preparation for Junior IT Systems Specialists is vocational secondary education or secondary education with professional work experience.

A.4 Most common occupational titles

Junior IT systems specialist, user support specialist, IT administrator, computer technician, IT technician.

A.6 Relevant skills for the future

Teave oskuste ja trendide kohta, mille tähtsus valdkonnas kasvab.

IT-süsteemide noorempetsialistina on oluline omada mitmekülgseid oskusi, mis vastavad pidevalt arenevale tehnoloogia valdkonnale. IT-süsteemide noorempetsialist hoiab ennast pidevalt kursis IT alaste arengutega sh. küberturvalisuse, tehisintellekti, asjade interneti (IoT) ja pilvetehnoloogia valdkondades. Ta omandab jooksvalt valdkondades kasutatavad mõisted. Samuti muutub järjest olulisemaks oskus koos töötada erinevas vanuses, erineva kultuurilise ja keelelise tausta ja/või erivajadustega inimestega.

Part B COMPETENCY REQUIREMENTS

B.1 Structure of occupation

Kutse IT-süsteemide noorempetsialist, tase 4 koosneb üldoskusest B.2. ja kohustuslikest kompetentsidest B.3.1.-B.3.14. Kutse taotlemisel tuleb tõendada üldoskused B.2. ja kõik kohustuslikud kompetentsid B.3.1.-B.3.14.

Osakutse Kasutajatoe tehnik, tase 4 taotlemisel tuleb tõendada üldoskused B.2. ning kompetentsid B.3.4. Dokumentatsiooni koostamine B.3.5. Kasutajatugi, B.3.6. Intsidendi haldus, B.3.7. Teenindussoovide haldus, B.3.8. Muudatuste tugi ja B.3.14. Infoturbe haldamine.

Osakutse IT-tehnik, tase 4 taotlemisel tuleb tõendada üldoskused B.2. ning kompetentsid B.3.3. Testimine, B.3.6. Intsidendi haldus, B.3.7. Teenindussoovide haldus, B.3.9. Teenuse osutamine ja B.3.14. Infoturbe haldamine.

Osakutse IT-haldustehnik, tase 4 taotlemisel tuleb tõendada üldoskused B.2. ning kompetentsid B.3.1. IT-taristu arendamine, B.3.2. Süsteemide haldamine ja lahenduste paigaldamine, B.3.6. Intsidendi haldus, B.3.10. Probleemihaldus, B.3.11. Lõppkasutajate juhendamine, B.3.12. Tarnijate ja klientidega suhtlemine, B.3.13. Projekti ja riski haldamine ja B.3.14. Infoturbe haldamine.

Hariduslikud nõuded

Nõuded kutse taotlemisel

Töömaailma taotlejale

1. Vähemalt põhiharidus
2. Vähemalt 1000 tundi erialast töökogemust IT süsteemide valdkonnas

Kutseõppe lõpetajale

1. Täies mahus läbitud kutseõppe õppekava (sh vähemalt 6 kuu pikkune praktika)

Osakutse IT-haldustehnik, tase 4 taotlemise kvalifikatsiooninõudeks on vähemalt 6 kuu pikkuse praktika läbimine või 1000 tundi erialast töökogemust. Osakutsete IT-tehnik, tase 4 ja kasutajatoe tehnik, tase 4 taotlemise kvalifikatsiooninõuded puuduvad.

Kutse on tähtajatu, mistõttu taastõendamise kvalifikatsiooninõudeid ei määrata.

Kutse andmise korraldus on reguleeritud IT süsteemide ja teenuste kutsete kutse andmise korras.

B.2 General skills of Junior IT Systems Specialist, EstQF Level 4

Mõtlemisoskused

1. Omandab uusi teadmisi ja oskusi. Mõtestab ja väärtustab õpitu sisulist tähendust.
 2. Kasutab mõtlemisel loogikat ja süsteemset arutlust, et näha nähtustevahelisi suhteid, teha järeldusi, tuvastada alternatiivsete lahenduste tugevad ja nõrgad küljed ning leida probleemide võimalikud lahendamise viisid.
 3. Tuvastab ja sõnastab tekkida võivad ning juba tekkinud probleemid. Hindab võimalusi ja strateegiaid lahenduse leidmiseks.
- Enesejuhtimisoskused**
4. Juhindub oma töös ja kutsealases tegevuses üldtunnustatud ja tööalastest eetikanõuetest, heast tavast ja töökultuurist ning hoiab lahus isiklikud ja organisatsiooni huvid.
 5. Järgib tööd tehes juhiseid, valdkondlikke nõudeid, eeskirju, õigusakte, standardeid, konventsioone jmt. Hindab adekvaatselt küberriske ning käitub digiseadmetega ja internetis vastutustundlikult, võttes kasutusele meetmeid küberohtude minimeerimiseks.
 6. Teeb eesmärgi saavutamiseks kohaseid valikuid ja otsuseid. Tegutseb järjekindlalt ülesande täitmise või tegevuse lõpuleviimise nimel. Seostab oma otsuseid ja tegevust võimalike tagajärgedega ning on valmis ja võimeline tulemustest aru andma.
 7. Lahendab teiste või iseenda püstitatud ülesandeid minimaalse juhendamise ja teavitab seotud osapooli olukordades, kus tööülesanded ületavad tema pädevust.
 8. Kasutab organisatsiooni ressursse heaperemehelikult ja säästlikult, käitub keskkonnateadlikult, lähtudes energia kokkuhoiu ja jäätmekäitluse põhimõtetest.
- Lävimisoskused**
9. Teeb ühiste eesmärkide nimel tõhusat koostööd, mõistes oma ja kolleegide rolli meeskonnas ning käitudes usaldusväärselt ja koostööd soodustavalt.
 10. Väljendab end (ka keerukates) suhtlusolukordades viisakalt, arusaadavalt ja olukorrale vastavalt, mõistab teise mõtteid ja seisukohti.
 11. Suudab mõtteid, ideid ja kontseptsioone esitades väljendada end selgelt, ladusalt, lühidalt, konkreetset ja vastuvõtjale arusaadavalt. Esitab kirjalikud materjalid struktureeritult ja loogiliselt ning keeleliselt korrektselt.
 12. Kasutab arvutit tasemel "Iseseisev kasutaja" (vt, Lisa 1 „Digipädevuste enesehindamise skaala“).
 13. Valdab eesti keelt tasemel B2 ja inglise keelt tasemel B1 (vt, Lisa 2 “Keelte oskustasemete kirjeldused”).

B.3 Competences

B.3.1 IT infrastructure development (e-CF competences A.4, A.6 & B.1)

EstQF Level 4

Performance indicators:

1. Provides input to identify key users and stakeholders to ensure and manage adequate information for decision-makers.
2. Participates in the planning of the solution and the development of functional conditions following best practices.
3. Selects the appropriate technical options for the design of the solution.
4. Assesses the resource needs of the production environment based on the resource use of the test environment.
5. Explains and describes the development of the solution to the client.

B.3.2 System management and solution deployment (e-CF competences B.2 & B.4)

EstQF Level 4

Performance indicators:

1. Determines the compatibility of technical conditions of software and hardware, assesses the adequacy and suitability of hardware components (including computer sets, recording devices, computer network components and mobile devices) to solve the terms of reference.
2. Installs systems and system components based on predetermined instructions and requirements.
3. Provides input to plan and select appropriate software hosting environment (including the operating system and its capability, application servers and their capability).
4. Conducts routine system maintenance based on predetermined instructions and requirements.
5. Prepares system changes and if necessary, assesses the actual impact of the changes on the system, including on performance.
6. Identifies malfunctioning components and determines the root cause of the errors throughout the solution.
7. Monitors system performance and compliance with key performance indicators (KPI).
8. Ensures the business continuity of the system, including data back-up, monitors the operation of systems (components, services).

B.3.3 Testing (e-CF competence B.3)

EstQF Level 4

Performance indicators:

1. Creates a test plan to assess the performance, capability, fault tolerance and vulnerability of the system based on established requirements and best practices; where possible, ensures the repeatability of testing based on the compiled test plan. 2. Prepares the test according to the test plan using automation (including scripts, monitoring elements and scheduled activities) where possible. 3. Uses the created test or testing tools and documents the results. 4. Presents test results and provides input for improvements based on test results.	
B.3.4 Documentation production (e-CF competence B.5)	EstQF Level 4
Performance indicators: 1. Documents the work done and its results, records deviations and solutions. 2. Prepares reports in compliance with appropriate requirements. 3. Prepares and updates the necessary instructions (instructions for routine operations and end-users, knowledge base articles). 4. Uses appropriate tools and components for preparing documentation (including texts, video and figures).	
B.3.5 User support (e-CF competence C.1)	EstQF Level 4
Performance indicators: 1. Records user requests and monitors their status from the start to the end solution following the incident management process. 2. Identifies circumstances related to the incident and where possible, determines the impact and extent (including the affected services and systems, amount of users, criticalness of the error and existence of an alternative use) of the error or technical failure by analysing them. 3. Communicates with the user (including providing instructions on how to apply known solutions) following good customer service practice.	
B.3.6 Incident Management (e-CF competence C.1)	EstQF Level 4
Tegevusnäitajad 1. Reageerib intsidiendi tekkimisele õigeaegselt lähtudes tööandja kokkulepetest ning tagades minimaalse mõju. 2. Haldab intsidentide lahendamise protsessi tulemuslikult. 3. Koordineerib kommunikatsiooni intsidiendi osapooltega tagades selge teavituskorra. 4. Analüüsib intsidente süstemaatiliselt, et tuvastada võimalikke mustreid või trende. 5. Võtab tarvitusele asjakohased meetmed intsidiendi mõju eskaleerumise vältimiseks. 6. Seab prioriteetid intsidiendi lahendamisel, lähtudes konkreetsest olukorrast ja tööandja kokkulepetest. 7. Teeb ettepanekuid parandusmeetmete osas intsidiendi kordumise ennetamiseks tulevikus. 8. Jälgib intsidiendi lahendamiseks kuluvat aega ja tagab efektiivse ajajuhtimise. 9. Koostab üksikasjalikud aruanded intsidiendi lahenduskäigu kohta. 10. Teeb ettepanekuid intsidiendi halduse protsessi tõhustamiseks.	
B.3.7 Service Request Management (e-CF competence C.1)	EstQF Level 4
Tegevusnäitajad 1. Kogub aktiivselt klientide teenindussoove kokkulepitud tagasisidekanalitest. 2. Reageerib klientide esitatud teenindussoovidele, tagades nende õigeaegse registreerimise ja lahendamise vastavalt kehtestatud tähtaegadele. 3. Tagab tõhusa suhtluse klientidega teenindussoovide menetlemise ajal. 4. Koostab üksikasjalikud aruanded teenindussoovide lahenduskäigu kohta. 5. Teeb ettepanekuid teenindussoovide halduse protsessi tõhustamiseks.	
B.3.8 Change support (e-CF competence C.2)	EstQF Level 4
Performance indicators: 1. Follows the change management process of the organisation. 2. Provides input to prepare a change request taking into account the impact of the change on existing systems and service level agreements. 3. Follows the plan described in the change application when making changes; restores the initial condition if the change fails. 4. Informs interested parties of the status and outcome of the change based on agreed procedures.	

B.3.9 Service delivery (e-CF competences C.3 ja E.6)	EstQF Level 4
Performance indicators: 1. Implements the principles of the service level agreement in their work based on their knowledge of the technologies used. 2. Systematically monitors information system performance and reliability data using appropriate tools and compares them to the service level agreement. 3. Records deviations in the functioning of the information system from the service level agreement in accordance with instructions. 4. Generalises potential service level errors and proposes improvements to service reliability. 5. Assesses the technical state of system components and implements preventive measures to prevent possible service level non-compliance. 6. Follows the principles established in the organisation's quality policy when participating in the service providing process and if necessary, proposes updates to the principles.	
B.3.10 Problem management (e-CF competence C.4)	EstQF Level 4
Performance indicators: 1. Identifies the problem or a problem candidate (expected problem) based on repeated incidents. 2. Registers the problem following the problem management process. 3. Identifies the root cause of the problem in simpler cases, analysing incidents and/or using appropriate diagnostic devices where necessary. 4. Finds a temporary solution to alleviate the problem. 5. Looks for possible solutions to eliminate the root cause based on best practices. 5. Forwards the problem to the next level specialist for solving if the root cause is not identified. 6. Informs the related parties of the nature of the problem, temporary solution, time of the final solution and other relevant information.	
B.3.11 Guidance for End Users (e-CF competences D.3 and D.9)	EstQF Level 4
Performance indicators: 1. Guides end-users and colleagues on how to use the software and equipment. 2. Prepares manuals for end users and colleagues on how to use software and equipment. 3. Adheres to best practices in customer service while providing guidance. 4. Uses terminology that is understandable to the target audience. 5. Assesses their competences and skills through self-analysis and provides input to define training needs.	
B.3.12 Relations with suppliers and clients (e-CF competencies D.4, D.5, D.8 ja E.4)	EstQF Level 4
Performance indicators: 1. Assesses the conformity of outsourced services and products with the signed service level agreements, technical specification and legislation; if necessary, informs the related parties of non-conformities. 2. Prepares the technical specifications for purchasing products and services based on the problem to be solved or the needs of the organisation. 3. Follows best customer service practice when communicating with suppliers and clients.	
B.3.13 Project and risk management (e-CF competencies E.2 ja E.3)	EstQF Level 4
Performance indicators: 1. Participates in the project group as a team member based on their role in the project team and the project plan. 2. Assesses the current and target situation described in the project plan and the realism of the set objectives. 3. Assesses the amount of time needed to carry out their work and if necessary, the realism of the set deadline. 4. Informs the project leader of the circumstances that may affect the course of the project or the achievement of the objectives. 5. Participates in developing and updating risk control plans as a team member.	
B.3.14 Information security management (e-CF competence E.8)	EstQF Level 4
Performance indicators: 1. Follows the information security policy established in the organisation, the best practices of information security management and the general principles of cyber hygiene. 2. Proposes updates to the organisation's information security policy based on relevant standards (e.g. ISO 27000 family).	

3. Recognises a simpler information security incident and behaves according to process instructions if one occurs.
4. Assesses the compliance of the information assets with the established classification and informs the related parties of possible deviations.
5. Implements appropriate technical solutions (including encryption and hashing) to ensure the confidentiality and integrity of information assets.

Part C

GENERAL INFORMATION AND ANNEXES

C.1 Information concerning compilation and certification of occupational qualification standard and reference to classification of occupations	
1. ID of occupational qualification standard in register of occupational qualifications	08-23092024-1.1/7k
2. Occupational qualification standard compiled by:	Rudolf Purge, Telia Eesti AS Silver Püvi, Arvuti Traumapunkt OÜ / Tartu Rakenduslik Kolledž Marti Mänd, Baltic Computer Systems AS Tuuli Zahvatkin, Baltic Computer Systems AS Merje Vaide, BCS Koolitus AS Kaire Eljas, Riigi IT Keskus
3. Occupational qualification standard approved by:	Information Technology and Telecommunication
4. No. of decision of Sectoral Council	29
5. Date of decision of Sectoral Council	23.09.2024
6. Occupational qualification standard valid until	22.09.2029
7. Occupational qualification standard version no.	7
8. Reference to International Standard Classification of Occupations (ISCO 08)	3511 Information and Communications Technology Operations Technicians
9. Reference to European Qualifications Framework (EQF)	4
C.2 Occupational title in foreign language	
English:	Junior IT Systems Specialist, EstQF Level 4
C.3 Annexes	
Lisa 1 Scale of self-assessment in digital competence	
Lisa 2 Language skills level descriptions	