EUROPASS CERTIFICATE SUPPLEMENT(*)

Republic of Estonia

1. TITLE OF THE CERTIFICATE - ET (1)

Geodeet, EKR tase 6

(1) In the original language

2. TRANSLATED TITLE OF THE CERTIFICATE (1)

Land Surveyor, EstQF Level 6

(1) If applicable. This translation has no legal status.

3. PROFILE OF SKILLS AND COMPETENCIES

Geodesy (Ancient Greek “geodaisia” literally, "division of Earth") is the science of determining the shape and size of the planet Earth and its surface features, including the methods of measurement used, the mathematical processing of measurement results, and the representation of the Earth's surface features in the form of maps, plans and profiles. A geodesist's main job is to carry out geodetic work on construction, planning and design sites: by first surveying the site and then processing, analysing, interpreting and formatting the data. Geodesists work in different fields according to their specialisation: construction geodesy, engineering specialities, higher geodesy, geodetic research. Due to the field of activity and established tradition, people working in the field of geodesy are also referred to as land surveyors.

A geodesist, level 6, is a professional who works in companies and institutions related to geomatics. Their main task is to carry out geodetic works on various sites.

A level 6 geodesist works in complex and unpredictable situations and quickly finds solutions to any problems that may arise. They ensure their working group operates effectively. If necessary, they consult a senior geodesist.
Geodesists work both in the office and in the field. The working hours are flexible. Sites must sometimes be surveyed outside normal working hours. The risk factors associated with a geodesist’s working environment are mainly due to traffic and the specific nature of buildings, construction and industrial sites, which is why they must strictly comply with the safety requirements and use personal protective equipment. Geodesists working in the office are equipped with office equipment and specialised software programmes. In the field, geodesists use appropriate instruments (e.g. total station, level, GNSS, etc.) and, where necessary, standard hand tools such as shovel, saw, hammer, etc.

A geodesist with a level 6 certificate is able to perform the following tasks:

1 Surveying
- Registers the planned survey work in accordance with the applicable regulations and collects the necessary basic data for the survey in accordance with the given task. Draws up a survey plan. Selects the measuring equipment for themselves and for the team, based on the task, the specific nature of the survey site and accuracy requirements, and makes sure they are in working order before starting work. Sets up tools (checking, adjusting, entering source data, etc.).
- Establishes a suitable geodetic survey network for the survey. Carries out surveying work (total station measurements, satellite surveys, levelling, laser scanning, etc.). Checks the results of both their own and the team’s survey work and assesses their compliance with the brief.

2 Processing of survey data

(*)**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 2001/613/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 available at: http://europass.cedefop.europa.eu/et/home

- Checks and analyses the survey data to ensure that it complies with the brief and applicable requirements. If necessary, makes calculations to correct the data.
- Performs geodetic calculations on the basis of the measurement results, assesses the consistency of the result and gives an assessment of its accuracy. Confirms the suitability of the data for subsequent steps.
- Produces geodetic drawings and models based on the results of measurements.
- Documents and maintains measurement data, calculation results, drawings and models; prepares and signs their own and their team’s drawings and technical reports.

3 Management
- participates in setting the institution's development goals (development plan, strategic plan) in line with their area of responsibility;
- manages the work in their area of responsibility in accordance with the principles of quality, environmental and risk management as well as safety and security requirements; manages the work in a cost-effective manner in accordance with the quality and legal requirements laid down; intervenes and plans changes when necessary;
- Organises the work of the team by assigning appropriate tasks to employees according to their skills, abilities and personal characteristics; ensures safety in the working environment, both in outdoor and indoor work;
- Ensures that employees are informed of health and safety requirements, monitors compliance with these requirements and provides appropriate feedback;
- Motivates, recognises and supports staff based on their skills, strengths and needs;
- identifies the team's training needs and, if necessary, refers the team for further training or submits proposals to management.

To qualify for an invitation, you must provide evidence of at least one of the competences from the selection:
4 Construction geodetic works
- Establishes an elevated and planned construction network, guided by the technical requirements and the specific nature of the site.
- Adds geodetic markings on objects with more complex configuration (multiple coordinates).
- Carries out performance and control measurements of buildings in accordance with the given task and technical requirements. Prepares working drawings and compares the results of control measurements with the construction project and informs the contracting entity if any discrepancies are found. Assesses the adequacy of the documentation and storage of work results.
- Measures and calculates the required quantities of material according to the accuracy requirements set in the design brief. Supervises a lower level geodesist.

5 Construction geodetic surveys
- Sets up the survey network, guided by the technical requirements and the specific characteristics of the site.
- Plans the survey and surveys the area according to the brief.
- Draws up a site plan, a surface model and the necessary building models in accordance with the external survey data and the legal requirements.
- Does the necessary coordination with the owners and managers of the utility networks within the area to be measured; prepares a report.

6 Engineering surveying of buildings
- Makes measurements of buildings, including historic buildings, and prepares drawings and models (building plans, sections, elevations, inventory drawings, explications, 3D models, etc.) required for building reconstruction projects and other purposes.
- Determines the areas and other technical parameters of buildings on the basis of survey data, and, if necessary and on the owner's authority, submits the data for entry in the building register.
- Participates in the preparation of BIM implementation plans for buildings; prepares BIM models.
- Carries out surveys of more complex installations (bridges, viaducts, production and technological equipment, power stations, hydro-technical installations, treatment plants, etc.) and prepares drawings (installation plans, sections, façade drawings, drawings of structural joints, 3D models, etc.) for the reconstruction of installations.
- Monitors buildings by determining horizontal and/or vertical alignments using an appropriate measurement methodology.
- Carries out precision measurements of specific installations (stadiums, fuel tanks, swimming pools, shooting ranges, railway tracks, more complex industrial and manufacturing equipment, mines, etc.) for calibration and registration, based on the details of the given object and normative documents.

7 Higher geodesy works
- Collect and analyse existing archival material on geodetic networks. Performs initial examination of the geodetic network. On the basis of the data received and the order placed, prepares the design of the local geodetic network for stages 2 and 3.
- Establishes and reconstructs the 2nd and 3rd stages of the local geodetic network according to the project, including construction, surveying, calculation and formalisation works.
- Participates in the establishment and reconstruction of national geodetic networks, carrying out tasks assigned by a senior geodesist.
- Performs conversions between coordinate systems using the appropriate software programs.

8 Geodetic computer modelling
- Prepares geodetic drawings from survey data in accordance with applicable requirements. Carries out more complex camera preparation work required in the field (compiling record files, etc.).
- Prepares geodetic ground models based on survey data in accordance with applicable requirements. Carries out more complex camera preparation work required in the field (prepares capture files, including 3D files, etc.).
- Creates the necessary 3D models for construction machinery.
- Prepares and approves work reports with annexes.

9 Expertise of the geodetic part of the project
- Carries out compliance checks of the geodesy part of geodetic and construction projects.
- Familiarises themselves with the project, identifies applicable legislation, standards, rules and guidance materials. Checks the compliance of the project with the terms of the brief and the resulting normative and guidance materials. Ensures that the project writers meet competence requirements.
- Carry out the necessary control calculations and/or checks the calculations and calculation schemes carried out by the designer in order to assess the justification of the technical solutions used. Assesses if the project is fit for purpose.
- Prepares the project's compliance assessment report, based on the requirements of the legislation, participates in expert meetings. If necessary, assesses the revised project.

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE [(1)]

Geodesist, project manager, chief geodesist, engineer-geodesist, BIM coordinator.

[(1)] If applicable

5. OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the body awarding the certificate	**Name and status of the national/regional authority providing accreditation/recognition of the certificate**
The occupational certificate that has been issued by the professional council that operates under the activity license issued by a Awarding Body	Occupational Qualification Council approved by a Regulation of the Government of the Republic
Level of the certificate (national or international) Estonian Qualification Framework level 6 European Qualification Framework level 6	**Grading scale / Pass requirements** passed/fail
Access to next level of education/training Geodesist, EstQF Level 7	**International agreements**

Legal basis

Occupational Qualifications Act (RT I 2008, 24, 156; 01.09.2008)

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

In order to obtain a occupational certificate, the applicant has to prove all his/her competencies required by the occupational standard and by the procedure for awarding of occupational qualification established by the body awarding the occupational qualification

More information (including a description of the national qualifications system) available at:
www.kutsekoda.ee