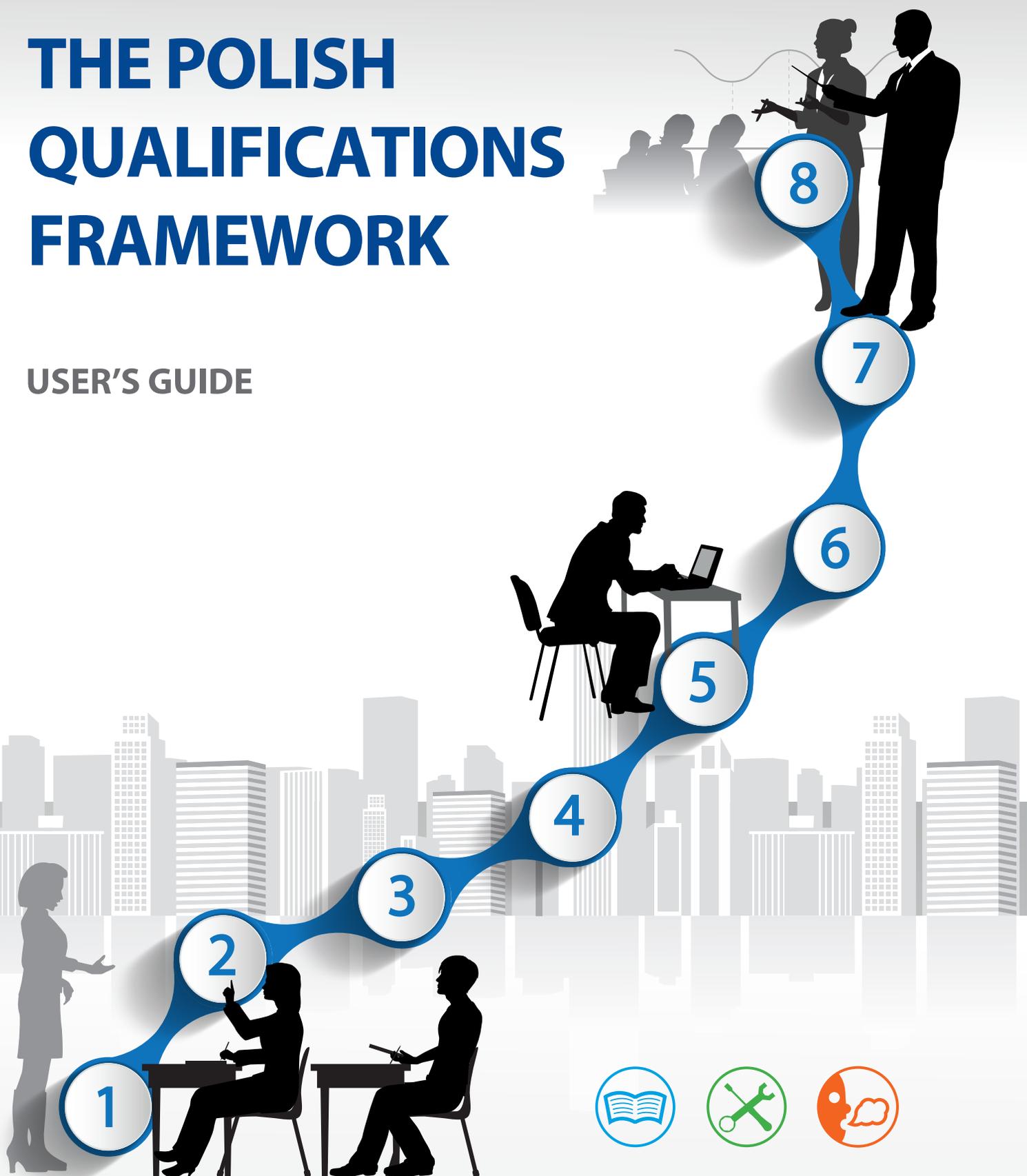


THE POLISH QUALIFICATIONS FRAMEWORK

USER'S GUIDE





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User's guide

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Introduction

The Integrated Qualifications System (IQS) currently being implemented in Poland enables qualifications awarded in Poland and in other countries of the European Union to be compared by referencing them to the levels of the Polish Qualifications Framework (PQF), and thus to the levels of the European Qualifications Framework (EQF). All Polish qualifications included in the IQS must be aligned to a specific PQF level. The PQF level for a given qualification is determined by comparing its required learning outcomes with the level descriptors of the Polish Qualifications Framework.

The first part of this publication presents basic information about the PQF, its structure and the manner in which the level descriptors are organised and presented. It also explains the role of the descriptors in the process of determining the level of a qualification and provides guidance to help in reading and interpreting individual descriptors. The second part presents detailed information about successive PQF levels with examples of selected learning outcomes and qualifications aligned to the specific level.

The aim of the "User's Guide" is to support persons who are determining the level of a qualification. It can also assist persons working on descriptions of the required learning outcomes for a given qualification and in developing sectoral qualifications frameworks.

Part I. The Polish Qualifications Framework as an instrument of lifelong learning policy

1. The structure of the Polish Qualifications Framework

The Polish Qualifications Framework (PQF), like the European Qualifications Framework (EQF), consists of eight levels¹. Each level is described by general statements characterising the requirements in terms of knowledge, skills and social competence relevant to a qualification at a given level². Level descriptors reflect the progression of requirements between qualifications of subsequent levels. From the PQF perspective, it is not relevant when and how the knowledge, social skills and competences required for a qualification at a given level were attained.

PQF level descriptors are consistent with the European Qualifications Framework level descriptors³. The consistency between PQF level descriptors and EQF level descriptors ensures that the PQF level determined for a given qualification corresponds to the same EQF level.

A unique solution applied in Poland is the development of two stages of PQF level descriptors:

- first stage, or universal descriptors, which refer to all types of qualifications,
- second stage descriptors typical for qualifications attained in:
 - general education,
 - higher education,
 - vocational education and training.

Furthermore, the second stage level 5 descriptors for education continued after the awarding of a full qualification at level 4 were established. These were designed as a „bridge“ between second stage descriptors typical for qualifications attained in general education and those typical for qualifications attained in higher education⁴.

First and second stage level descriptors constitute a coherent whole and should be read together in order to fully understand the specific qualities of the different levels. The structure of the PQF is presented in Figure 1.

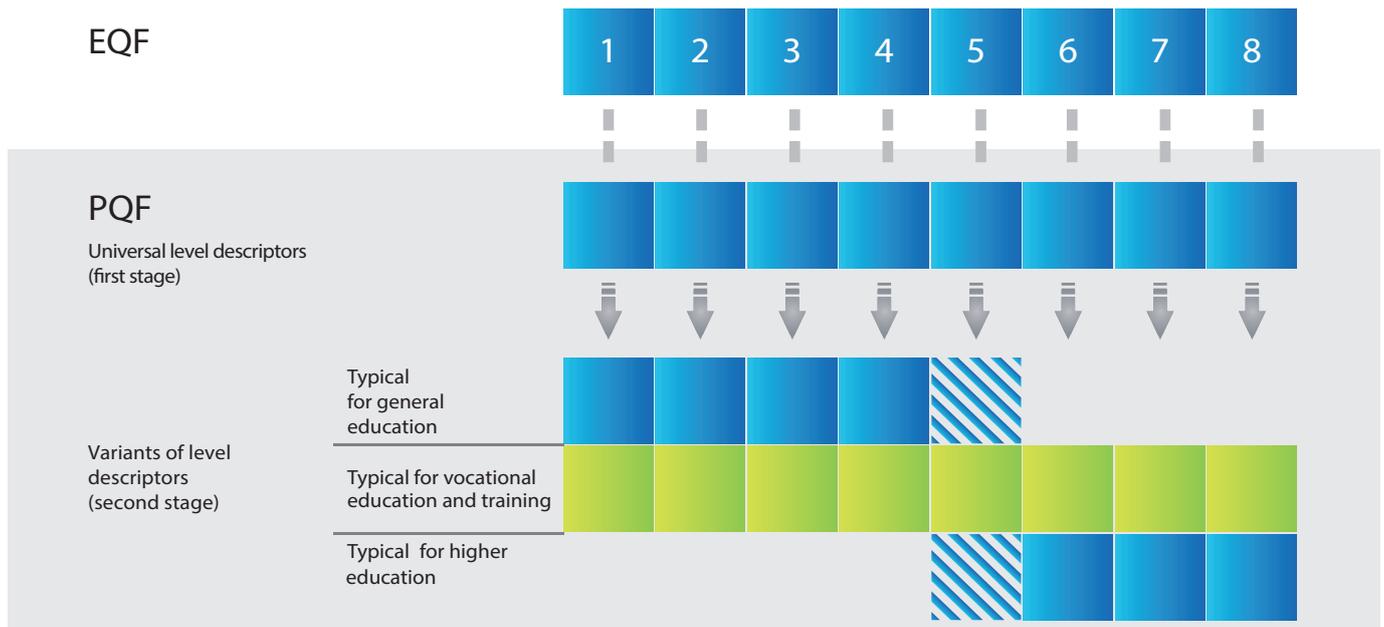
1 The European Qualifications Framework level descriptors are included in the Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning.

2 Definitions of key terms relating to the Integrated Qualifications System are included in the annex. They were developed on the basis of the premises of the Act on the Integrated Qualifications System adopted by the Council of Ministers on 31 March 2015.

3 For more information on the compatibility between PQF level descriptors and EQF level descriptors, see: Sławiński S., Dębowski H. (eds.) (2013). *Referencing Report. Referencing the Polish Qualifications Framework for lifelong learning to the European Qualifications Framework*. Warsaw: Educational Research Institute, pp. 36–47

4 Currently, the Polish higher education system does not award qualifications that meet the requirements of PQF level 5. These qualifications – as shown by the experience of countries with short cycles of higher education – can be developed and may be of particular value to employers.

Figure 1. The structure of the Polish Qualifications Framework



Source: IBE.

Sectoral qualifications frameworks (SQF), describing the hierarchy of qualifications' levels functioning in a given field of professional activity (sector, industry), can be viewed as the further development of descriptors typical for qualifications attained in vocational education and training. One of the main objectives of developing SQFs is to describe PQF level descriptors using the vocabulary of the various sectors and thus facilitate the process of determining the level of their qualifications.

2. Universal level descriptors

The universal (first stage) descriptors of all eight PQF levels refer to all types of qualifications.

The differences between the levels described by the universal descriptors relate to:

- **knowledge** – scope and depth of understanding facts, objects, phenomena, concepts and theories, consisting of both general knowledge and expertise relating to the field of learning or occupational activity;
- **skills** – problem solving skills and applying knowledge in practice, including performing tasks of varying complexity, learning and communication;
- **social competence** – readiness to take on the obligations resulting from membership in different communities, cooperating, evaluating the consequences of one's own actions and taking responsibility for them.

A summary of the descriptive categories and basic aspects of the universal descriptors is presented in Table 1.

Table 1. Descriptive categories and basic aspects for the comprehensive description of knowledge, skills and social competence of universal (first stage) descriptors.

	Descriptive categories	Basic aspects
Knowledge	Scope	– Completeness of the cognitive perspective
	Depth of understanding	– Dependencies
Skills	Problem solving and applying knowledge in practice	– Complexity of the problem – Level of autonomy – Innovation in the approach – Conditions under which one acts
	Learning	– Autonomy – Methods
	Communication	– Scope of expression – Complexity of expression
Social competence	Identity	– Participation – Sense of responsibility – Conduct
	Cooperation	– Team work – Conditions under which one acts – Leadership
	Responsibility	– Consequences of one's own actions – Consequences of the team's actions – Evaluation

3. Level descriptors typical for qualifications attained in general education

The level descriptors typical for qualifications attained in general education are described for PQF levels 1–4. The certificate of completion of a six-year primary school corresponds to PQF level 1⁵, the certificate of completion of lower secondary school corresponds to PQF level 2, the certificate of completion of basic vocational school is equivalent to PQF level 3, and the upper secondary school leaving certificate (matura) – PQF level 4.

The descriptors of levels 1 through 4 typical for qualifications attained in general education reflect the gradual advancement of knowledge, skills and social competence resulting from learning in general education. The differences between the various levels refer to:

- **general knowledge** – scope and depth of understanding: the principles of structuring statements; concepts, dependencies and mathematical models; the components of the material world, phenomena and processes in nature and technology; the principles of the functioning of society and participation in social life;
- **skills** – ability to: understand and formulate statements; use a foreign language; use mathematical tools; observe phenomena and processes in nature and technology; express one's membership in a community; plan and learn autonomously;
- **social competence** – readiness to: comply with the rules of ethics in the process of communication; caring about one's health, safety and the environment; cooperation in

⁵ The certificate of completion of the planned 8-year primary school will correspond to PQF level 2.

a team, participation in social life and accepting the obligations resulting from membership in a community.

A summary of the descriptive categories and basic aspects of the descriptors typical for qualifications attained in general education is presented in Table 2.

Table 2. Descriptive categories and basic aspects for the comprehensive description of knowledge, skills and social competence of level descriptors typical for qualifications attained in general education

	Descriptive categories	Basic aspects
Knowledge	Language and communication	– Structures and principles of formulating statements
	Mathematics and natural sciences	– Concepts and dependencies – Interpretation
	Social functioning	– Principles of functioning – Social roles – Identity
Skills	Language and communication	– Understanding and formulating statements – Using a foreign language
	Mathematics and natural sciences	– Selecting and using tools, making observations and performing experiments
	Social functioning	– Expressing membership in communities
	Learning	– Organisation – Planning
Social competence	Language and communication	– Culture of communicating
	Health and the environment	– Attention to health and safety – Attitude towards the environment
	Social functioning	– Cooperation – Involvement – Assuming responsibility

4. Level descriptors typical for qualifications attained in higher education

The level descriptors typical for qualifications attained in higher education are described for PQF levels 6–8. They enable the alignment of these levels to full qualifications attained in higher education, including the diploma certifying the title of *licencjat* (licentiate), the diploma certifying the title of engineer, the diploma certifying the title of *magister* (master's), the diploma certifying the title of *magister inżynier* (master's of engineering), and the diploma certifying the academic degree of *doktor* (doctorate) in a specific discipline.

The descriptors of levels 6 through 8 typical for qualifications attained in higher education reflect the gradual advancement of knowledge, skills and social competence as a result of learning within a specified scope of higher education. The differences between various levels refer to:

- **knowledge** – scope and depth of understanding; general and selected specific issues relevant to the academic discipline; the legal and economic context of the professional activities typical for the qualifications of a particular study programme;
- **skills** – ability to: use attained knowledge to solve complex and non-routine problems and to innovatively perform tasks; communicate with diverse audiences and transfer knowledge; present, evaluate and discuss different positions and opinions; plan one’s own lifelong learning and direct others in this regard;
- **social competence** – readiness to: thoroughly analyse and critically evaluate attained knowledge and the achievements of a given discipline; comply with professional ethics and require the same of others; uphold and develop the ethos of the research and artistic communities.

A summary of the descriptive categories and basic aspects of the descriptors typical for qualifications attained in higher education is presented in Table 3.

Table 3. Descriptive categories and basic aspects for the comprehensive description of knowledge, skills and social competence of level descriptors typical for qualifications attained in higher education

	Descriptive categories	Basic aspects
Knowledge	Depth and scope	– Completeness of the cognitive perspective and dependencies
	Context	– Conditions, effects
Skills	Using knowledge	– Solving problems and carrying out tasks
	Communication	– Understanding and formulating statements – Disseminating knowledge in the academic community – Using a foreign language
	Organising work	– Planning – Team work
	Learning	– Planning personal development and the development of others
Social competence	Evaluation	– Critical approach
	Responsibility	– Fulfilling social obligations – Acting in the public interest
	Professional role	– Autonomy, development of an ethos

5. Level descriptors typical for qualifications attained in vocational education and training

All eight PQF levels have second stage level descriptors typical for qualifications attained in vocational education and training. They enable the alignment of relevant PQF levels to occupational qualifications awarded by Regional Examination Boards, crafts organisations, trade associations and other entities.

The descriptors of levels 1 through 8 typical for qualifications attained in vocational education and training reflect the gradual advancement of knowledge, skills and social competence relevant to the nature of the occupational roles of the qualifications at specific PQF levels. The differences between various levels refer to:

- **knowledge** – scope and depth of understanding: the principles of conducting business activities; the phenomena and processes determining the procedures and effectiveness of carrying out occupational activities; the methods, technologies and organisational solutions used in carrying out tasks; the properties and principles of operating the tools, machinery and equipment used in the occupation; the properties of the materials used;
- **skills** – ability to: use documentation; develop and collect quantitative data, analyse and assess information; prepare, implement and correct plans to perform a specific task; select tools, materials, procedures to achieve the intended objective; plan professional development;
- **social competence** – readiness to: act in accordance with applicable rules; follow advice, orders and instructions; observe the principles of reliability and loyalty; cooperate in a team; act in accordance with quality measures; assume responsibility for the consequences of one's decisions and actions.

A summary of the descriptive categories and basic aspects of the descriptors typical for qualifications attained in vocational education and training is presented in Table 4.

Table 4. Descriptive categories and basic aspects for the comprehensive description of knowledge, skills and social competence of level descriptors typical for qualifications attained in vocational education and training

	Descriptive categories	Basic aspects
Knowledge	Theories and principles	<ul style="list-style-type: none"> – Methods and solutions – Business activity – Ethics
	Phenomena and processes	<ul style="list-style-type: none"> – Characteristics, conditions
	Organising work	<ul style="list-style-type: none"> – Methods and technologies – Organisational solutions – Occupational health and safety
	Tools and materials	<ul style="list-style-type: none"> – Use – Properties
Skills	Information	<ul style="list-style-type: none"> – Documentation – Calculating, analysing, synthesising and predicting
	Organising work	<ul style="list-style-type: none"> – Planning and revising plans – Doing – Revising activities – Information flow
	Tools and materials	<ul style="list-style-type: none"> – Using and selecting
	Learning and professional development	<ul style="list-style-type: none"> – Personal development – Supporting the development of others
Social competence	Following rules	<ul style="list-style-type: none"> – Rules, instructions, laws
	Cooperation	<ul style="list-style-type: none"> – Communication – Professional relations
	Responsibility	<ul style="list-style-type: none"> – Ethical norms

6. How to understand the descriptors of the Polish Qualifications Framework

- The terms characterising PQF levels are general because each PQF level descriptor is a common reference point for the learning outcomes required for all qualifications of a given level included in the IQS (regardless of the field of learning or occupational activity from which they originate and to which they relate).
- The entries relating to particular descriptive categories (presented in Tables 1–4) are further developed at successive levels and constitute a distinct „series”. Some „series” do not include all levels. The continuation of a series to subsequent levels is indicated by the symbol „■”.
- Individual „series” include ranked terms indicating the progression of the requirements in knowledge, skills and social competence between successive PQF levels. Therefore, in order to interpret particular terms, it is advisable to read the descriptors of the entire „series”.

- The progression of requirements between PQF levels is indicated by a number of terms, such as:



- very simple → simple → not very complex → moderately complex → complex
- most basic phenomena and processes → basic phenomena and processes → phenomena and processes → basic conditions affecting the phenomena
- under typical conditions → under partially variable conditions → under variable conditions → under variable, predictable conditions → under variable and not fully predictable conditions
- detailed instructions → general instructions → partially without instructions → without instructions
- under direct supervision → under supervision → partially autonomously → autonomously

Persons using the PQF level descriptors have to interpret these terms to analyse (and define) the competences (knowledge, skills and social competence) required for a given qualification.

- In the case of level descriptors typical for qualifications attained in vocational education and training, successive requirements are also expressed by using the progression of: elements of an occupational activity → occupational activity → occupational task

In the context of the PQF, the following interpretation of terms was adopted:

- elements of an occupational activity has the smallest range,
 - occupational activity is a set of several elements of an occupational activity,
 - occupational task is a specific set of occupational activities.
- In some „series“, the progression is expressed by indicating the important content of a given descriptive category in its different dimensions and from different perspectives, for example:
 - is ready to: respect the obligations arising from membership in various communities → assume the obligations arising from membership in various communities → be a member of various types of communities, function in various social roles and assume the basic obligations ensuing from this → assume responsibility for participating in various communities and functioning in various social roles.

7. Using the PQF level descriptors

- PQF level descriptors primarily serve to determine the PQF level of a qualification.
- PQF level descriptors can also be helpful in formulating the learning outcomes required for a qualification, as they provide a focus on three fundamental questions for the persons defining a qualification's requirements:
 - What will a person with the given qualification know and understand?
 - What will he/she be able to do?
 - What will he/she be ready to undertake? What types of obligations and responsibilities will he/she be ready to assume?

8. General comments on determining the PQF levels of qualifications

- The levels of qualifications are determined by comparing the required learning outcomes for a given qualification with PQF level descriptors (a qualification's level is not determined by the education required as a condition to attain it nor the PQF level of the partial qualifications required to attain it).

- Comparing the learning outcomes required for a qualification with the PQF level descriptors must be performed separately for each learning outcome, according to a standard procedure. This procedure stipulates that each learning outcome must be referenced to a corresponding component of the level descriptors according to the principle of best fit. Individual learning outcomes may be referenced to different PQF levels. In determining a qualification's level, the PQF levels of key learning outcomes organised into sets are taken into account. More information about the comparison method is presented in *Przypisywanie poziomu PRK do kwalifikacji nadawanych poza systemami oświaty i szkolnictwa wyższego* [The alignment of a PQF level to qualifications awarded outside the formal general, vocational and higher education systems], published by IBE in 2016.
- In the case of partial qualifications, the learning outcomes required for a qualification do not have to include all of the components of the PQF level descriptors. The requirements for the qualification may correspond to one or several entries of the given PQF level descriptors.
- In the course of referencing subsequent required learning outcomes of a qualification to PQF level descriptors, the relevant entries of all four sets of PQF descriptors should be reviewed (universal descriptors and second stage descriptors typical for qualifications attained in general education, higher education and vocational education and training). In addition, if there is a sectoral qualifications framework (SQF) relevant to the given qualification, its descriptors should also be taken into account when analysing the qualification's requirements.
- When comparing the required learning outcomes of a qualification with PQF level descriptors, the context of the field of study or occupational activity associated with the qualification should also be taken into account. It may be possible to more accurately assess the meaning of particular terms from the perspective of a specific field of study or occupational activity, e.g. whether the requirements relating to the knowledge of specialised terminology determined for the qualification constitute „the most basic concepts and typical terminology” (level 2) or rather „the basic concepts and terminology” (level 3).
- The PQF is a tool enabling levels to be determined and, thus, to compare only those qualifications included in the IQS.
- The PQF level should never be referenced to a person having a qualification at a particular level. As a result of learning and accumulating different experiences, a person can have several qualifications at various PQF levels.

9. PQF level descriptor codes

When determining the PQF level of a qualification, it is useful to use the codes of individual PQF level descriptors. The codes are presented in Tables 5–8.

Table 5. Universal PQF level descriptors (first stage)

L = PQF level (1...8)
U = universal descriptor
K = Knowledge
S = Skills
C = Social competence
Examples: L1U_K = PQF level 1, universal descriptor, knowledge L4U_S = PQF level 4, universal descriptor, skills L7U_C = PQF level 7, universal descriptor, social competence

Table 6. PQF level descriptors typical for qualifications attained in general education (second stage)

<p>L = PQF level (1...4) G = descriptor typical for qualifications attained in general education</p>
<p>K = Knowledge</p>
<p>C = language and communication M = mathematics and natural sciences F = social functioning</p>
<p>S = Skills</p>
<p>C = language and communication M = mathematics and natural sciences F = social functioning L = learning</p>
<p>C = Social competence</p>
<p>C = language and communication H = health and the environment F = social functioning</p>
<p>Examples: L2G_KC = PQF level 2, descriptor typical for qualifications attained in general education, knowledge – language and communication L3G_SM = PQF level 3, descriptor typical for qualifications attained in general education, skills – mathematics and science L2G_SL = PQF level 2, descriptor typical for qualifications attained in general education, skills – learning L4G_CF = PQF level 4, descriptor typical for qualifications attained in general education, social competence – social functioning</p>

Table 7. (Second stage) PQF level descriptors typical for qualifications attained in higher education

<p>L = PQF level (6...8) H = descriptor typical for qualifications attained in higher education</p>
<p>K = Knowledge</p>
<p>D = depth and scope X = context</p>
<p>S = Skills</p>
<p>U = using knowledge C = communication O = organising work L = learning</p>
<p>C = Social competence</p>
<p>E = evaluation R = responsibility P = professional role</p>
<p>Examples: L6H_KX = PQF level 6, descriptor typical for qualifications attained in higher education, knowledge – context L7H_SL = PQF level 7, descriptor typical for qualifications attained in higher education, skills – learning L7H_CP = PQF level 7, descriptor typical for qualifications attained in higher education, social competence – professional role</p>

Table 8. (Second stage) PQF level descriptors typical for qualifications attained in vocational education and training

<p>L = PQF level (1...8) V = descriptors typical for qualifications attained in vocational education and training</p>
<p>K = Knowledge</p>
<p>T = theory and principles P = phenomena and processes O = organising work M = tools and materials</p>
<p>S = Skills</p>
<p>I = information O = organising work M = tools and materials L = learning and professional development</p>
<p>C = Social competence</p>
<p>F = following rules C = cooperation R = responsibility</p>
<p>Examples: L3V_KT = PQF level 3, descriptors typical for qualifications attained in vocational education and training, knowledge – theory and principles L6V_SO = PQF level 6, descriptors typical for qualifications attained in vocational education and training, skills – organising work L4V_CC = PQF level 4, descriptors typical for qualifications attained in vocational education and training, social competence – cooperation</p>

Part II.

Levels of the Polish Qualifications Framework

Level 1

Description of the level

PQF level 1 descriptors include the elementary scope of general knowledge necessary to function in different social groups, reflect the preparation of a person with a qualification at this level to perform very simple tasks under direct supervision. They indicate that the person:

- has sufficient knowledge to use the tools, machines and equipment available in a prepared work station safely and according to easily understood instructions,
- is ready to observe the principles of teamwork and to undertake learning according to received guidelines without ongoing supervision.

Selected learning outcomes as referenced to the relevant PQF level 1 descriptors

Learning outcome*	PQF level descriptor
– Listens carefully to statements and uses the information provided	– Understands simple statements about typical phenomena and situations (L1G_SC)
– Determines the theme and main idea of a text	– Is able to retrieve very simple information from simple texts (L1G_SC)
– Performs simple cash calculations (price, quantity, total amount) and copes in everyday situations that require such skills	– Is able to use very simple mathematical tools in routine situations of daily life (L1G_SM)
– Weighs items, differentiates items which are heavier, lighter; uses terms such as: <i>kilogram</i> , $\frac{1}{2}$ <i>kilogram</i> , <i>decagram</i> , <i>gram</i> ; performs simple calculations using these measures (without binominal expressions and conversion of units in formal calculations)	– Is able to carry out very simple measurements, observations and experiments on objects, phenomena and processes (L1G_SM)
– Knows the basic relationships among closest relatives; takes on household chores and diligently performs them; identifies with his/her family and its traditions; understands that money is earned through work; understands the economic situation of the family and knows that one must adapt his/her expectations to it	– Knows and understands the principles of functioning in various social groups; the elementary determinants of one's cultural identity; the elementary characteristics of the communities to which one belongs (L1G_KF)
– Participates in competitions, mini-games and field games, sports competitions, respecting the rules and adhering to the decisions of the judge	– Is ready to actively participate in a group acting under the leadership of a supervisor (L1G_CF)

*The learning outcomes were selected from the core curriculum of general education in primary schools (see the Regulation of the Minister of National Education of 18 June 2014 amending the regulation on the core curriculum of preschool education and general education in particular types of schools, OJ 2014 item 803).

PQF Level 1 Descriptors

KNOWS AND UNDERSTANDS:		IS ABLE TO:		IS READY TO:	
First stage generic descriptors (universal)		First stage generic descriptors (universal)		First stage generic descriptors (universal)	
L1U_K	elementary facts and concepts as well as the dependencies between selected natural and social phenomena and the products of human thought	L1U_S	carry out very simple tasks according to detailed instructions under typical conditions; solve very simple, routine problems under typical conditions; learn under direct guidance in a structured form; understand simple statements and formulate very simple statements	L1U_C	respect the obligations arising from membership in various communities; act and cooperate with others under direct supervision in structured conditions; evaluate one's own actions and take responsibility for the direct results of those actions
Second stage generic descriptors typical for general education	Second stage generic descriptors typical for vocational education and training	Second stage generic descriptors typical for general education	Second stage generic descriptors typical for vocational education and training	Second stage generic descriptors typical for general education	Second stage generic descriptors typical for vocational education and training
L1G_KC		L1G_SC		L1G_CC	
the structure of very simple statements and the principles of formulating them	L1V_KT	understand simple statements about typical phenomena and situations; formulate very simple statements about typical phenomena and situations; use basic forms of politeness relevant to the situation; retrieve very simple information from simple texts; use a foreign language at the CEFR A1 level	L1V_SI	comply with elementary principles of communication in routine situations; refrain from lying	L1V_CF
					act according to received instructions; follow orders and heed advice ■
L1G_KM		L1G_SM		L1G_CH	
selected very simple mathematical concepts and dependencies; very simple descriptions of the surrounding material world as well as selected phenomena and processes in nature and technology; very simple interpretations of selected phenomena and processes in nature and technology	L1V_KP	use very simple mathematical tools in routine situations of daily life; carry out very simple measurements, observations and experiments on objects, phenomena and processes in nature and technology using basic tools and materials in situations of daily life	L1V_SO	comply with basic principles of health and safety; respect natural surroundings	L1V_CC
					work with others while carrying out elements of occupational activities
L1G_KF		L1G_SF		L1G_CF	
the principles of functioning in various social groups; the basic social roles of a person in modern society; the elementary determinants of one's cultural identity; the elementary characteristics of the communities to which one belongs	L1V_KO	acknowledge membership in a specific community in routine situations	L1V_SM	cooperate with another person in routine daily situations; actively participate in a group acting under the leadership of a supervisor; perceive and react to the needs of other group members; behave in a manner appropriate to the customs adopted by the communities to which one belongs	L1V_CR
					carry out elements of occupational activities with due diligence; take proper care of the work station, tools and materials
	L1V_KM	L1G_SL			
	the principles of the operation and use of tools, machines and equipment used at the work station; the properties of the materials used at the work station and the principles of working with them	undertake learning according to received guidelines without the ongoing supervision of a person directing learning activities; justify the need to learn	L1V_SL		
			work with a career advisor		

Level 2

Description of the level

PQF level 2 descriptors define the scope of general knowledge constituting the basic preparation for life in modern society. A person with PQF level 2 qualifications understands the basic principles of social order and is ready to cooperate for the common good. He/she is also prepared to perform occupational activities under the guidance of a more experienced person and:

- has sufficient knowledge to use a prepared work station, including appropriate tools, machinery and equipment, in accordance with general instructions and applicable regulations,
- knows where to look for additional information, retrieves it and assesses its usefulness in the context of undertaken activities,
- is able to verify the results of his/her own work using appropriate procedures and to assess whether the result is compatible with the expectations set out by the ordering party,
- is ready to establish and maintain contacts necessary from the point of view of the occupational activities being carried out.

PQF level 2 descriptors also indicate that the person is prepared to learn on the basis of received instructions and to identify the most important factors determining the future course of his/her professional career.

Selected learning outcomes as referenced to the relevant PQF level 2 descriptors

Learning outcome*	PQF level descriptors
– Distinguishes important information from secondary information included in a text	– Is able to retrieve simple information from not very complex texts (L2G_SC)
– Explains the importance of family life and provides examples of the rights and obligations of particular family members	– Knows and understands the basic responsibilities of a modern person in relation to his/her family, local community and nation (L2G_KF)
– Explains the democratic nature of the Polish state, using the concepts of free elections, freedom of speech, free media, the constitution	– Knows and understands the basic procedures of a democracy (L2G_KF)
– Specifies the tasks and responsibilities of an assistant hotel service worker	– Knows and understands workplace health and safety rules and procedures relating to the occupational activities being carried out (L2V_KO)
– Distinguishes the types of grounds and maintenance work carried out in a hotel facility	– Knows and understands the methods and technologies relating to the occupational activities being carried out (L2V_KO)
– Uses the basic vocabulary of an occupation in carrying out routine occupational tasks	– Is able to formulate and present simple statements (L2G_SC)
– Uses equipment, materials and tools to maintain cleanliness and order in the rooms of a hotel facility	– Is able to use the routine equipment of a work station for carrying out simple occupational activities in compliance with safety requirements (L2V_SM)
– Performs the work of washing dishes and cleaning kitchen equipment	– Is able to carry out elements of simple occupational activities (L2V_SO)
– Maintains order and cleanliness in the workplace and respects the rules of hygiene	– Is able to act according to the rules and instructions relating to occupational activities (L2V_CF)

*The learning outcomes were selected from the core curriculum for general education for lower secondary schools and upper secondary schools, the completion of which allows a school leaving certificate to be attained after passing the matriculation examination (*matura*) (see the Regulation of the Minister of National Education of 18 June 2014 amending the regulation on the core curriculum of preschool education and general education in particular types of schools, OJ 2014, item 803) and the core curriculum of vocational education *Assistant hotel service worker* (see the Regulation of the Minister of National Education of 7 February 2012 on the core curriculum of vocational education, OJ 2012, item 184).

The selection of relevant PQF level descriptors for learning outcomes was one of the aims of the sectoral teams involved in verifying the methodology to determine the PQF level and initial alignment of the PQF level to the qualification.

Example of a qualification referenced to PQF Level 2:

- Certificate confirming the qualification «T.1. Performing work as an assistant in facilities providing hotel services»

PQF Level 2 Descriptors

KNOWS AND UNDERSTANDS:		IS ABLE TO:		IS READY TO:	
First stage generic descriptors (universal)		First stage generic descriptors (universal)		First stage generic descriptors (universal)	
L2U_K	a broadened set of elementary facts, simple concepts as well as the dependencies between selected natural and social phenomena and the products of human thought	L2U_S	complete simple tasks following general instructions most often under typical conditions; solve simple, routine problems most often under typical conditions; learn under guidance in a structured form; understand moderately complex statements, formulate simple statements; formulate and understand the simplest statements in a foreign language	L2U_C	assume the obligations arising from membership in various communities; act and cooperate with others under direction in structured conditions; evaluate the actions in which one participates and take responsibility for the results of those actions
Second stage generic descriptors typical for general education	Second stage generic descriptors typical for vocational education and training	Second stage generic descriptors typical for general education	Second stage generic descriptors typical for vocational education and training	Second stage generic descriptors typical for general education	Second stage generic descriptors typical for vocational education and training
L2G_KC	L2V_KT	L2G_SC	L2V_SI	L2G_CC	L2V_CF
the structure of simple statements and the principles of formulating them	the most basic concepts and typical terminology relating to the occupational activities being carried out	understand not very complex statements; formulate and present simple statements; differentiate the manner of communicating relevant to the situation; retrieve simple information from not very complex texts; use a foreign language at the CEFR A2 level	use basic documentation relating to occupational activities; retrieve, compare and assess simple information required to carry out occupational activities, which is also available in electronic form; make simple calculations relating to the occupational activities being carried out	share information that one has in situations where it is needed; refrain from stating unsubstantiated opinions	act according to the rules and instructions relating to occupational activities
L2G_KM	L2V_KP	L2G_SM	L2V_SO	L2G_CH	L2V_CC
selected simple mathematical concepts and strategies as well as very simple mathematical reasoning; very simple descriptions of selected components of the material world as well as selected phenomena and processes in nature and technology	basic phenomena and processes relating to the occupational activities being carried out	use simple mathematical tools in various situations; carry out simple measurements, observations and experiments on objects, phenomena and processes in nature and technology; select and use relevant tools and materials	plan simple occupational activities under the direction of a more experienced person and revise the plan according to circumstances; carry out elements of simple occupational activities	comply with basic principles of caring for one's health and the safety of oneself and others; respect the basic principles of environmental protection	establish and maintain essential contacts relating to occupational activities; work in a team to carry out occupational activities
L2G_KF	L2V_KO	L2G_SF	L2V_SM	L2G_CF	L2V_CR
the basic principles of social order and the basic procedures of a democracy; the basic responsibilities of a modern person in relation to his/her family, local community and nation; basic historical facts about one's country and region; basic principles of conduct resulting from one's own cultural identity and membership in communities	methods and technologies relating to the occupational activities being carried out; workplace health and safety rules and procedures relating to the occupational activities being carried out	behave appropriately in routine situations according to the customs of the specific community to which one belongs	use the routine equipment of a work station for carrying out simple occupational activities in compliance with safety requirements	cooperate in an informal group, respecting the rules of democracy; solve simple problems of cooperating in an informal group in routine situations; become involved in activities on behalf of the common good of the communities to which one belongs; act in defense of the good reputation of the communities to which one belongs and be respectful of other communities	take into account easily foreseen, immediate or delayed consequences of the way one's work is being carried out; control the quality of one's work using appropriate tools and control procedures
	L2V_KM	L2G_SL	L2V_SL		
	the principles of the operation and use of tools, machines and equipment used to carry out occupational activities; the basic characteristics of the materials used to carry out occupational activities	undertake individual learning according to received guidelines without the ongoing supervision of a person directing learning activities; participate in decision-making relating to further learning	identify appropriate job offerings for oneself; present oneself to a potential employer		

Level 3

Description of the level

PQF level 3 descriptors define the scope of general knowledge, which is the basis for participation in social life. A person with a PQF level 3 qualification is prepared to partially independently perform not very complex tasks and organise the work of a small team of employees performing such tasks. Such a person:

- is able to prepare an action plan to be implemented by the team in which he/she works and adjust it to circumstances, using the knowledge of the phenomena and processes relating to the performed tasks,
- knows the stages of implementing tasks and the desired outcomes of the activities, standard methods, technologies and organisational solutions,
- understands the principles of selecting tools, machinery and equipment commonly used in carrying out tasks,
- is able to organise a work station in compliance with health and safety regulations,
- is able to communicate in the work environment in a way that does not impede information flow, take responsibility for assigned tasks and control the quality of the tasks carried out by the team in which he/she works,
- understands the elementary principles of conducting a business, which does not mean that he/she is sufficiently prepared to actually operate a business.

PQF level 3 descriptors also include the ability to learn independently, to develop one's own career according to a plan (e.g. established in collaboration with a career advisor, a more experienced person), as well as to analyse job offers from this perspective and establish contact with potential employers.

Selected learning outcomes as referenced to the relevant PQF level 3 descriptors

Learning outcomes*	PQF level descriptors
– Organises a work station in accordance with the requirements of ergonomics, health and safety regulations, fire protection and environmental safety	– Is able to organise a work station for carrying out not very complex occupational tasks in compliance with safety requirements (L3V_SM)
– Specifies the rights and obligations of an employee and an employer relating to health and safety	– Knows and understands workplace health and safety rules, procedures and norms relating to the occupational tasks being carried out (L3V_KO)
– Specifies the importance of marketing in advertising and distinguishes its elements	– Knows and understand phenomena and processes relating to the occupational tasks being carried out (L3V_KP)
– Defines the methods and techniques of repairing and restoring upholstered products	– Knows and understands routine methods and technologies used in carrying out occupational tasks (L3V_KO)
– Specifies the forms of the internal transport and storage of goods	– Knows and understands routine organisational solutions used in carrying out occupational tasks (L3V_KO)
– Formulates short and understandable statements and written texts for communicating in the workplace	– Is ready to communicate in the work environment in a way that does not impede information flow relating to the occupational tasks being carried out (L3V_CC)
– Selects and prepares materials for the installation of partition walls, suspended ceilings and roof structures using the drywall system	– Is able to carry out activities comprising not very complex occupational tasks (L3V_SO)
– Performs machining operations according to technical documentation	– Is able to carry out activities comprising not very complex occupational tasks (L3V_SO)

* The learning outcomes were selected from the core curriculum for the following occupations: *trade technician, upholsterer, specialist in appliance installation and construction finishing work, machine tool operator* (see the Regulation of the Minister of National Education of 7 February 2012 on the core curriculum of vocational education, OJ 2012, item 184).

The selection of relevant PQF level descriptors for learning outcomes was one of the aims of the sectoral teams involved in verifying the methodology to determine the PQF level and initial alignment of the PQF level to the qualification.

Examples of qualifications referenced to PQF level 3:

- Certificate confirming the qualification „A.10. Producing upholstered products“
- Certificate confirming the qualification „M.19. Using machine tool equipment“

PQF Level 3 Descriptors

KNOWS AND UNDERSTANDS:		IS ABLE TO:				IS READY TO:	
First stage generic descriptors (universal)		First stage generic descriptors (universal)				First stage generic descriptors (universal)	
L3U_K	basic facts and concepts as well as the dependencies between selected natural and social phenomena and the products of human thought; furthermore, a broader scope of selected facts, concepts and dependencies in specific areas; the basic conditions of conducted activities	L3U_S	complete moderately complex tasks following general instructions under partially variable conditions; solve simple, routine problems under partially variable conditions; learn partially autonomously under guidance in a structured form; understand moderately complex statements, formulate moderately complex statements; understand and formulate very simple statements in a foreign language			L3U_C	be a member of various types of communities, function in various social roles and assume the basic obligations ensuing from this; act and cooperate with others partially autonomously under structured conditions; evaluate one's own actions and those of the team; take responsibility for the results of those actions
Second stage generic descriptors typical for general education		Second stage generic descriptors typical for vocational education and training		Second stage generic descriptors typical for general education		Second stage generic descriptors typical for vocational education and training	
L3G_KC	the structure of not very complex statements and the principles of formulating them	L3V_KT	basic concepts and terminology relating to the occupational task being carried out; elementary principles of individually operating a business and entrepreneurship	L3G_SC	understand moderately complex statements; formulate and present not very complex statements; differentiate the expression of statements relevant to the situation ■ retrieve and process not very complex information from moderately complex texts; use a foreign language at the CEFR A2+ level	L3V_SI	use documentation relating to not very complex occupational tasks; retrieve, compare, assess and analyse the information required to carry out occupational tasks; make not very complex calculations relating to occupational tasks
L3G_KM	selected not very complex mathematical concepts, dependencies and strategies as well as simple mathematical reasoning and models; not very complex descriptions of selected components of the material world as well as selected phenomena and processes in nature and technology; not very complex interpretations of selected phenomena and processes in nature and technology; the differences between a scientific and non-scientific understanding of reality ■	L3V_KP	phenomena and processes relating to the occupational tasks being carried out	L3G_SM	use not very complex mathematical tools; carry out not very complex measurements, observations and experiments on objects, phenomena and processes in nature and technology; select and use non-routine tools and materials in a manner consistent with their purpose and rules of use ■	L3V_SO	prepare a plan of carrying out not very complex occupational tasks and revise it according to circumstances; carry out activities comprising not very complex occupational tasks; organise the work of a small work team carrying out not very complex occupational tasks; solve simple problems that arise while carrying out not very complex occupational tasks; receive and transmit the information required to carry out not very complex occupational tasks
L3G_KF	the legal basis of governance relating to economic, social and political activities as well as family life; the basic principles of functioning in a place of learning, work as well as participating in public life ■ the most important elements of national heritage and the humanistic heritage of Europe and the world; the basic principles of the functioning of communities to which one belongs resulting from the values held by these communities	L3V_KO	routine methods and technologies used in carrying out occupational tasks; routine organisational solutions used in carrying out occupational tasks; workplace health and safety rules, procedures and norms relating to the occupational tasks being carried out	L3G_SF	become appropriately involved in the activities of a specific community depending on the situation ■	L3V_SM	organise a work station for carrying out not very complex occupational tasks in compliance with safety requirements
L3V_KM	the principles of the operation and use of tools, machines and equipment used to carry out not very complex occupational tasks; the basic characteristics of the materials used and products made	L3G_SL	undertake autonomous learning according to a defined plan; choose ways of attaining further learning, taking into account the basic factors influencing success in one's personal life and professional career	L3V_SL	analyse job offers in the context of personal competences and professional development; autonomously contact a potential employer	L3G_CF	cooperate in an organised group, respecting its hierarchical structure; solve not very complex problems of cooperating in a group; become involved in public affairs to the extent that is appropriate given the social roles one has; assume the basic responsibilities relating to membership in a community
		L3V_CF	act according to regulations relating to the performance of occupational tasks; provide reliable information on issues relating to the occupational tasks being carried out; comply with agreements made relating to cooperation in carrying out occupational tasks ■	L3G_CH	comply with the principles of caring for the health and safety of oneself and others in various contexts ■ react in situations when threats to the environment appear ■	L3V_CC	communicate in the work environment in a way that does not impede information flow relating to the occupational tasks being carried out; work in a team to carry out occupational tasks
		L3V_CR	reliably carry out assigned occupational tasks; take into account the immediate or delayed consequences of the way one's tasks are being carried out; control the quality of the occupational tasks being carried out by the team one is working in; take responsibility for assigned occupational tasks				

Level 4

Description of the level

PQF level 4 descriptors define the required general knowledge enabling a person to attain the *matura* certificate [upper secondary school leaving certificate] and continue learning in higher education. They also reflect the preparation of a person with a qualification at this level to independently carry out moderately complex tasks partially without instructions and lead a small team of employees performing such tasks. They indicate that the person holding the PQF level 4 qualification:

- is able to prepare a plan to carry out his/her own occupational tasks and those of the team he/she is directing and to agree on this with other persons or teams,
- is able to process information and update his/her knowledge, including about the phenomena and processes relating to the performed tasks and various possible methods, technologies and organisational solutions,
- is able to share his/her knowledge about the performed tasks with less experienced persons, including about the principles of selecting tools, machinery and equipment, the properties of the materials used and qualities of the manufactured products,
- is able to develop his/her own working conditions and those of a subordinate team in compliance with occupational health and safety regulations, as well as according to basic ethical principles,
- is ready to accept responsibility for assigned tasks and to control and correct the quality of the performance of the team in which he/she works.

PQF level 4 descriptors also include having knowledge of the basic principles of entrepreneurship and conducting business activity, understanding the basic mechanisms of the functioning of society, including the economy, and being prepared to independently plan personal professional development.

Selected learning outcomes as referenced to the relevant PQF level 4 descriptor

Learning outcomes*	PQF level descriptor
– Plans the work of the team to perform assigned tasks	– Is able to prepare a plan of carrying out moderately complex occupational tasks under routine conditions and revise it according circumstances for oneself and the team one is leading (L4V_SO)
– Prepares the documentation needed to start and operate a business	– Is able to develop elements of documentation relating to moderately complex occupational tasks (L4V_SI)
– Plans and undertakes marketing activities relating to the conducted business activity	– Knows and understands the basic principles of operating a business and entrepreneurship (L4V_KT) – Is able to prepare a plan of carrying out moderately complex occupational tasks under routine conditions and revise it according circumstances for oneself and the team one is leading (L4V_SO)
– Selects measuring equipment and auxiliary equipment for microbiological, biochemical and environmental testing	– Is able to design a work station for carrying out moderately complex occupational tasks (L4V_SO)
– Selects suitable statistical data for analysis and decision making	– Is able to analyze, select and link moderately complex information from various sources (L4G_SC)
– Performs and supervises the work of securing underground mining operations against natural hazards	– Is able to carry out moderately complex occupational tasks, often under variable, predictable conditions (L4V_SO)

* The learning outcomes were selected from the core curriculum for the following occupations: *analyst technician, economist technician, underground mining technician* (see the Regulation of the Minister of National Education of 7 February 2012 on the core curriculum of vocational education, OJ 2012, item 184).

The selection of relevant PQF level descriptors for learning outcomes was one of the aims of the sectoral teams involved in verifying the methodology to determine the PQF level and initial alignment of the PQF level to the qualification.

Examples of qualifications referenced to PQF level 4:

- Certificate confirming the qualification „A.52. Organising and carrying out footwear manufacturing processes“
- Certificate confirming the qualification „A.60. Performing analytical research“
- Certificate confirming the qualification „A.68. Customer service in administration units“
- Certificate confirming the qualification „M.39. Organising and carrying out the mining of underground resources“
- Diploma confirming the qualification „Administration Technician“

PQF Level 4 Descriptors

KNOWS AND UNDERSTANDS:		IS ABLE TO:		IS READY TO:	
First stage generic descriptors (universal)		First stage generic descriptors (universal)		First stage generic descriptors (universal)	
L4U_K a broadened set of basic facts, moderately complex concepts, theories and the dependencies between selected natural and social phenomena and the products of human thought; furthermore, a broader scope of facts, moderately complex concepts and theories from specific fields and the dependencies between them; the basic conditions of conducted activities		L4U_S complete moderately complex tasks, partially without instructions, often under variable conditions; solve moderately complex and somewhat non-routine problems often under variable conditions; learn autonomously in a structured form; understand complex statements, formulate moderately complex statements on a broad range of issues; understand and formulate simple statements in a foreign language		L4U_C assume responsibility for participating in various communities and functioning in various social roles; act and cooperate with others autonomously under structured conditions; evaluate one's own actions and those of the persons one is directing; take responsibility for the results of one's own actions as well as those of the persons one directs	
Second stage generic descriptors typical for general education	Second stage generic descriptors typical for vocational education and training	Second stage generic descriptors typical for general education	Second stage generic descriptors typical for vocational education and training	Second stage generic descriptors typical for general education	Second stage generic descriptors typical for vocational education and training
L4G_KC the structure of moderately complex statements and the principles of formulating them	L4V_KT the general theoretical foundations of the methods and solutions used in carrying out occupational tasks; basic principles of operating a business and entrepreneurship; basic ethical principles required in carrying out occupational tasks	L4G_SC understand complex statements; formulate and present moderately complex statements; analyse, select and link moderately complex information from various sources; use a foreign language at the CEFR B1 level	L4V_SI develop elements of documentation and keep records relating to moderately complex occupational tasks; process information on moderately complex occupational tasks; follow new developments in the area of the occupational tasks being carried out; process quantitative data relating to moderately complex occupational tasks	L4G_CC cultivate a proper culture of communicating in various contexts	L4V_CF comply with the requirements relating to technology and the principles of the organisation of work; comply with the principles of loyalty in relationship to one's employer and co-workers ■
L4G_KM selected moderately complex mathematical concepts, dependencies and strategies as well as not very complex mathematical reasoning and models; moderately complex descriptions of selected components of the material world as well as selected phenomena and processes in nature and technology; moderately complex interpretations of selected phenomena and processes in nature and technology as well as selected theories about the material world	L4V_KP basic conditions affecting the phenomena and processes relating to the occupational tasks being carried out	L4G_SM use moderately complex mathematical tools; carry out moderately complex measurements, observations and experiments in the field of natural sciences	L4V_SO prepare a plan of carrying out moderately complex occupational tasks under routine conditions and revise it according to circumstances for oneself and the team one is leading; carry out moderately complex occupational tasks, often under variable, predictable conditions; lead a small work team carrying out moderately complex occupational tasks under routine conditions; diagnose and solve one's own problems or those of subordinate workers arising in the process of carrying out moderately complex occupational tasks; monitor the flow of information relating to the performance of moderately complex occupational tasks; coordinate one's own work or that of a subordinate team with other persons or teams	L4G_CH	L4V_CC communicate in the professional community in a way that ensures good cooperation in one's team and with other persons and teams ■ work in a team and work together with other persons and teams
L4G_KF selected theories on social life and its development; basic mechanisms of the functioning of the economy, also in the global dimension; in an in-depth way, one's own identity as a legacy of the history and culture of his/her nation and participation in different types of communities	L4V_KO routine and other often used methods and technologies utilised in carrying out occupational tasks; routine and other often used organisational solutions utilised in carrying out occupational tasks; required workplace health and safety regulations relating to the occupational tasks being carried out ■	L4G_SF	L4V_SM design a work station for carrying out moderately complex occupational tasks; develop one's own working conditions and those of a subordinate team in compliance with occupational health and safety regulations ■	L4G_CF conduct a partnership form of dialogue and cooperation as well as submit to / lead in various hierarchical structures while taking into account the ethical aspects of this	L4V_CR act according to basic ethical principles while carrying out occupational tasks; take into account the social and economic effects of the way occupational tasks are being carried out; control the quality of the tasks being carried out by subordinate workers and take responsibility for leading small work teams ■ take responsibility for the autonomous occupational tasks being carried out
	L4V_KM the principles of the operation and use of tools, machines and equipment used to carry out not very complex occupational tasks; the characteristics of the materials used and products made ■	L4G_SL plan learning relevant to one's level of advancement in an implemented education programme from the perspective of personal development; choose ways of attaining further learning from the perspective of personal development	L4V_SL plan personal professional development; provide instruction and training in the occupational tasks being carried out		

Level 5

Description of the level

PQF level 5 descriptors reflect the preparation of a person with a qualification at this level to use their knowledge to perform moderately complex tasks under variable, but predictable conditions and lead a small team implementing such tasks. They indicate that the person:

- is able to select sources and derive information from them, is ready to critically assess such information,
- is able to properly select and apply available methods, tools and technologies required for occupational tasks,
- is able to consider a variety of factors (economic, legal, social and other) in the conducted business activity,
- is able to use specialised terminology and present his/her opinion in communications to maintain contacts relating to the conducted business activity,
- is able to analyse and evaluate the progress and results of his/her own work and the work of the team he/she is leading based on available quantitative data; develop and revise an action plan relating to his/her own tasks and those of the team he/she is leading; and, is ready to take responsibility for the consequences of the performed activities,
- is able to assess his/her own knowledge, independently plan and carry out his/her own learning, and assess the training needs of subordinates,
- is ready to act in an entrepreneurial manner,
- is ready to responsibly perform professional functions and observe the principles of professional ethics,
- is ready to participate in activities serving the public interest.

Selected learning outcomes as referenced to the relevant PQF level 5 descriptors

Learning outcomes*	PQF level descriptors
– Directs the implementation of assigned tasks	– Is able to lead a small work team carrying out moderately complex occupational tasks under variable but predictable conditions (L5V_SO)
– Introduces technical and organisational solutions which improve the conditions and quality of work	– Is able to select the methods, technologies, procedures and materials required for the performed occupation (L5V_SM)
– Optimizes the costs and revenues of the business	– Is able to analyse the performed occupation based on available quantitative data (L5V_SI)
– Analyses the activities carried out by other companies operating in the industry	– Is able to follow the developments of the given occupational field, its legal framework and local contexts (L5V_SI)
– Initiates joint ventures with different companies in the industry	– Is ready to maintain proper relations in the local professional community (L5V_CC)
– Applies diverse teaching aids in the learning process	– Is able to serve as the supervisor of an intern / mentor of a newly hired employee (L5V_SL)
– Provides training and career advice within the workplace	– Is able to assess the training needs of subordinate workers (L5V_SL)

* The learning outcomes were selected from the core curriculum for the following occupation: *analyst technician* (see the Regulation of the Minister of National Education of 7 February 2012 on the core curriculum of vocational education, OJ 2012, item 184) and the examination standard for master confectioner.

The selection of relevant PQF level descriptors for learning outcomes was one of the aims of the sectoral teams involved in verifying the methodology to determine the PQF level and initial alignment of the PQF level to the qualification.

Examples of qualifications referenced to PQF level 5:

- Master craftsman's certificate of "Lace-maker".
- Master craftsman's certificate of "Maker of handmade shoes".
- Master craftsman's certificate in the profession "Confectioner".

PQF Level 5 Descriptors

KNOWS AND UNDERSTANDS:		IS ABLE TO:		IS READY TO:							
First stage generic descriptors (universal)		First stage generic descriptors (universal)		First stage generic descriptors (universal)							
L5U_K	a broad scope of facts, theories, methods and the dependencies between them; the diverse conditions of conducted activities	L5U_S	complete tasks without instructions under variable, predictable conditions; solve moderately complex and non-routine problems under variable, predictable conditions; learn autonomously; understand moderately complex statements, formulate moderately complex statements using specialised terminology; understand and formulate very simple statements in a foreign language using specialised terminology	L5U_C	assume basic professional and social responsibilities, evaluate and interpret them; independently act and cooperate with others under structured conditions, direct a small team under structured conditions; evaluate one's own actions and those of others and the teams one directs; assume responsibility for the results of those actions						
Second stage generic descriptors for further education after having been awarded a full qualification at level 4	Second stage generic descriptors typical for vocational education and training	Second stage generic descriptors for further education after having been awarded a full qualification at level 4	Second stage generic descriptors typical for vocational education and training	Second stage generic descriptors for further education after having been awarded a full qualification at level 4	Second stage generic descriptors typical for vocational education and training						
L5H_KS	in relation to the study programme – selected facts, objects and phenomena as well as associated methods and theories explaining the complex dependencies between them, from the field of basic general knowledge on which its theoretical foundations are based, and selected issues from the specific knowledge relating to the study programme; in relation to the study programme – an advanced level of selected facts, objects and phenomena as well as associated methods and theories explaining the complex dependencies between them, from the basic general knowledge of the academic disciplines on which its theoretical foundations are based, and selected issues from the specific knowledge relating to the study programme	L5V_KT	the theoretical foundations of the methods and technologies used in the occupation; the principles of operating a business and entrepreneurship; the ethical principles of the occupation	L5H_SU	use one's knowledge to solve moderately complex and non-routine problems under variable, not fully predictable conditions by: <ul style="list-style-type: none"> selecting proper sources and information from them, selecting and using proper methods and tools, including information communication technologies (ICT) 	L5V_SI	develop and keep records relating to the documentation required for the occupation ■ follow the developments of the given occupational field, its legal framework and local contexts; analyse the performed occupation based on available quantitative data	L5H_CE	recognize that one does not have full and certain knowledge	L5V_CF	comply with the principles of the occupation on guaranteeing the proper quality and safety of its performance
L5H_KX	the basic economic, legal and other consequences of various types of activities relating to the awarded qualification	L5V_KP	selected theories explaining the phenomena and processes relating to the occupation	L5H_SC	communicate in one's community using specialised terminology – understand moderately complex statements, formulate not very complex statements using specialised terminology; present and substantiate one's position; use a foreign language at the CEFR B1+ level, utilising basic specialised vocabulary	L5V_SO	prepare a plan of carrying out occupational tasks taking into account variable, predictable conditions and revise it according to circumstances for oneself and the team one is leading; carry out moderately complex occupational tasks under variable, predictable conditions; lead a small work team carrying out moderately complex occupational tasks under variable but predictable conditions; analyse and assess the course of performing the occupation and its effects, solve non-routine problems and make appropriate corrections; manage the flow of information relating to the performed occupation; cooperate with clients and cooperants	L5H_CR	fulfil social obligations; participate in activities on behalf of the public interest, act in an enterprising manner	L5V_CC	maintain proper relations in the local professional community
	L5V_KO	a broad scope of methods and technologies used in the occupation; a broad scope of organisational solutions used in the occupation	L5H_SO	organise one's work – individually and in a team	L5V_SM	select the methods, technologies, procedures and materials required for the performed occupation	L5H_CP	responsibly fulfil professional roles and comply with the ethical principles of the profession	L5V_CR	promote ethical principles while carrying out the work of the occupation; take into account work quality, economic and social contexts as well as other significant effects of the performed occupation; take responsibility for the performed occupation	
	L5V_KM	the principles of the operation and use of tools, machines and equipment used to carry out occupational tasks ■	L5H_SL	analyse and assess personal learning needs, autonomously take advantage of available learning opportunities	L5V_SL	analyse and assess one's own professional competences ■ autonomously take advantage of available opportunities to update and broaden professional competences ■ assess the training needs of subordinate workers; serve as the supervisor of an intern / mentor of a newly hired employee					

Level 6

Description of the level

PQF level 6 descriptors reflect the preparation of a person with a qualification at this level to use knowledge to formulate and solve complex and unusual problems and perform tasks in not fully predictable conditions, as well as plan and organise the work of a team or a small organisation carrying out such tasks. They indicate that the person:

- is able to assess, critically analyse and synthesise information from appropriately selected sources,
- is able to properly select and apply available methods, tools and technologies to carry out tasks, as well as to make simple adaptations,
- is able to take into account various complex conditions (economic, legal, social and others) relating to the activities being carried out and to analyse and assess them in the context of these conditions,
- is able to use specialised terminology, present, assess and discuss different opinions and positions to maintain appropriate relations in connection with the conducted activities,
- is able to independently plan his/her own lifelong learning,
- is ready to responsibly perform professional functions; cultivate and disseminate models of good practice in the field of work; participate in promoting a culture of quality, cooperation and the principles of professional ethics,
- is ready to initiate actions serving the public interest.

Selected learning outcomes as referenced to the relevant PQF level 6 descriptors:

Learning outcomes*	PQF level descriptor
<ul style="list-style-type: none"> – Has basic knowledge about the subjectivity of a person in relation to national and international law, including the determination of human rights and the principles of their protection. Knows the position of a citizen in relationship to the administration 	<ul style="list-style-type: none"> – Knows and understands – in relation to the study programme – an advanced level of selected facts, objects and phenomena as well as associated methods and theories explaining the complex dependencies between them, from the basic general knowledge on which its theoretical foundations are based, and selected issues from the specific knowledge relating to the study programme (L6H_KS).
<ul style="list-style-type: none"> – Knows and understands the basics of the classical mechanics of particles and rigid bodies, fundamentals of fluid mechanics, the laws of classical electrodynamics 	<ul style="list-style-type: none"> – Knows and understands – in relation to the study programme – an advanced level of selected facts, objects and phenomena as well as associated methods and theories explaining the complex dependencies between them, from the basic general knowledge on which its theoretical foundations are based, and selected issues from the specific knowledge relating to the study programme (L6H_KS).
<ul style="list-style-type: none"> – Knows and understands the issues relating to the impact of the chemical industry on the environment, problems with waste management 	<ul style="list-style-type: none"> – Knows and understands the fundamental dilemmas of modern civilization (L6H_KX)
<ul style="list-style-type: none"> – Is able to use properly selected IT development environments, simulators and computer-aided design tools for the simulation, design and verification of electronic elements and circuits and simple electronic systems 	<ul style="list-style-type: none"> – Is able to use one's knowledge to formulate and solve complex and non-routine problems as well as carry out tasks under not fully predictable conditions by: <ul style="list-style-type: none"> • properly selecting sources and information from them; conducting an assessment, critical analysis and synthesis of this information • selecting and using proper methods and tools, including advanced techniques of information communications technology (ICT) (L6H_SU)
<ul style="list-style-type: none"> – Properly uses selected standards and rules of law, in order to solve basic legal problems relevant to public administration studies, particularly in the field of one's interests and specialisation. Is able to find the legal basis, case law and literature relating to the examined issues and apply ethical principles. Is able to perform administrative tasks 	<ul style="list-style-type: none"> – Is able to use one's knowledge to formulate and solve complex and non-routine problems, as well as carry out tasks under not fully predictable conditions by: <ul style="list-style-type: none"> • properly selecting sources and information from them; conducting an assessment, critical analysis and synthesis of this information • selecting and using proper methods and tools, including advanced techniques of information communications technology (ICT) (L6H_SU)
<ul style="list-style-type: none"> – Is able to present the correct mathematical reasoning in an understandable way, formulate statements and definitions, both orally and in writing 	<ul style="list-style-type: none"> – Is able to communicate using specialised terminology (L6H_SF)
<ul style="list-style-type: none"> – Is able to organise his/her own work and that of the team, critically assess progress, autonomously undertake and initiate simple research activities 	<ul style="list-style-type: none"> – Is able to plan and organise work – individually and in a team (L6H_SO)

* The learning outcomes were selected from among those identified in the Regulation of the Ministry of Science and Higher Education on standard learning outcomes for first-cycle studies in mathematics (Regulation of the Minister of Science and Higher Education of 4 November 2011 on standard learning outcomes, OJ 2011 No. 253, item 1521) and the set of learning outcomes of first-cycle studies in administration (from the Faculty of Law and Administration, University of Warsaw), and in advanced instrument methods and measurement techniques (Faculty of Chemistry, University of Warsaw).

PQF Level 6 Descriptors

KNOWS AND UNDERSTANDS:		IS ABLE TO:				IS READY TO:						
First stage generic descriptors (universal)		First stage generic descriptors (universal)				First stage generic descriptors (universal)						
L6U_K	an advanced level of facts, theories, methods and the complex dependencies between them; the diverse, complex conditions of conducted activities	L6U_S	innovatively complete tasks and solve complex and non-routine problems under variable and not fully predictable conditions; autonomously plan one's lifelong learning; communicate in one's environment, substantiate one's position			L6U_C	cultivate and disseminate models of good practice in the workplace and beyond; make decisions independently; critically evaluate one's own actions, those of the team one directs and the organisations in which one participates; assume responsibility for the results of those actions					
Second stage generic descriptors typical for higher education		Second stage generic descriptors typical for vocational education and training		Second stage generic descriptors typical for higher education		Second stage generic descriptors typical for vocational education and training						
L6H_KS	in relation to the study programme – an advanced level of selected facts, objects and phenomena as well as associated methods and theories explaining the complex dependencies between them, from the basic general knowledge of the academic or artistic disciplines on which its theoretical foundations are based, and selected issues from the specific knowledge relating to the study programme	L6V_KT	an advanced level of the theoretical foundations of the methods and technologies used in the occupation; the standards of operating a business and developing an enterprise ■ the basic principles of industrial property rights and copyrights relating to the occupation		L6H_SU	use one's knowledge to formulate and solve complex and non-routine problems as well as carry out tasks under not fully predictable conditions by: <ul style="list-style-type: none"> properly selecting sources and information from them; conducting an assessment, critical analysis and synthesis of this information selecting and using proper methods and tools, including advanced techniques of information communications technology (ICT) 	L6V_SI	monitor the developments of the occupation and its national conditions and contexts; diagnose the performed occupation based on available data about the internal situation and external environment	L6H_CE	critically evaluate one's level of knowledge; recognize the value of knowledge in solving cognitive and practical problems	L6V_CF	comply with the principles of the occupation on maintaining the quality of its performance as well as the culture of cooperation and the culture of competition
L6H_KX	the fundamental dilemmas of modern civilization; the basic economic, legal and other conditions of undertaking various types of activities relating to the awarded qualification, including basic concepts and regulations on industrial property rights and copyrights	L6V_KP	an advanced level of theories explaining the phenomena and processes relating to the occupation		L6H_SC	communicate using specialised terminology; participate in debates – present and assess different opinions and positions and discuss them; use a foreign language at the CEFR B2 level	L6V_SO	prepare a plan of carrying out occupational tasks taking into account variable, not fully predictable conditions and revise it according to circumstances; carry out complex occupational tasks under variable and not fully predictable conditions; lead a small work team / small organisation carrying out complex occupational tasks under variable and not fully predictable conditions; analyse and assess the performed occupation in the context of national conditions; design the flow of information for a work team / small organisation ■ establish and maintain proper relations with clients and cooperants ■	L6H_CR	fulfil one's social obligations, co-organise activities on behalf of society; initiate activities on behalf of the public interest; think and act in an enterprising manner	L6V_CC	maintain proper relations in the professional community
	L6V_KO	various, complex methods and technologies used in the occupation; various, complex organisational solutions used in the occupation		L6H_SO	plan and organise work – individually and in a team		L6V_SM	adapt simple methods and technologies as well as simple procedures in the performed occupation	L6H_CP	responsibly fulfil professional roles, including: <ul style="list-style-type: none"> complying with the ethical principles of the profession and requiring this of others attend to the achievements and traditions of the profession 	L6V_CR	promote the ethical principles of the performed occupation ■ participate in promoting a culture of quality in the occupation; make decisions in difficult situations
	L6V_KM	L6H_SL	autonomously plan and implement personal lifelong learning		L6V_SL	assess the possibilities for the professional development of subordinate workers; provide training to workers in the field of the occupation						

Level 7

Description of the level

PQF level 7 descriptors reflect the preparation of a person with a qualification at this level to use knowledge to formulate and solve complex and non-routine problems, innovatively carry out tasks under unpredictable conditions, and to plan and organise the work of a team or organisation to carry out such tasks. They indicate that the person::

- is able to assess, critically analyse and synthesise information from appropriately selected sources, as well as creatively interpret and present it,
- is able to properly select and apply available methods, tools and technologies to implement undertaken tasks and to make appropriate modifications,
- is able to take into account complex conditions (economical, legal, social and others) and the axiological context of the activity being carried out, as well as analyse and assess the activity in relationship to these conditions and observed scientific developments and prognoses,
- is able to communicate with various audiences using specialised terminology and carry out discussions in establishing and maintaining proper relations in connection with the activities being carried out, also in the international community,
- is able to independently plan his/her own lifelong learning and guide the development of the competences of subordinate employees,
- is ready to responsibly perform professional functions, taking into account changing social needs, promote and develop the principles of professional ethics, a culture of quality and cooperation in the activities being carried out,
- is ready to inspire and organise activities for the social community and initiate actions serving the public interest.

Selected learning outcomes as referenced to the relevant PQF level 7 descriptors

Learning outcomes*	PQF level descriptor
<ul style="list-style-type: none"> – Has knowledge of the scientific developments and the most important trends in the field of electronics and – to a lesser extent – of information technology and telecommunications 	<ul style="list-style-type: none"> – Knows and understands the main scientific developments in the academic or artistic disciplines essential to the study programme (L7H_KS)
<ul style="list-style-type: none"> – Is able to analyse complex signals and signal processing systems in time and frequency, using analogue and digital techniques and adequate tools, and if necessary, modify existing or develop new methods of analysis 	<ul style="list-style-type: none"> – Is able to use one's knowledge to formulate and solve complex and non-routine problems as well as innovatively carry out tasks under unpredictable conditions by: <ul style="list-style-type: none"> • properly selecting sources and information from them; conducting an assessment, critical analysis, synthesis and creative interpretation and presentation of this information, • selecting and using proper methods and tools, including advanced techniques of information communications technology (ICT) (L7H_SU)
<ul style="list-style-type: none"> – Is able to apply various methods and techniques in the process of verifying hypotheses concerning, among others, the determinants of crime, victimization risk, trends in crime 	<ul style="list-style-type: none"> – Is able to use one's knowledge to formulate and solve complex and non-routine problems as well as innovatively carry out tasks under unpredictable conditions by: <ul style="list-style-type: none"> • properly selecting sources and information from them; conducting an assessment, critical analysis, synthesis and creative interpretation and presentation of this information, • selecting and using proper methods and tools, including advanced techniques of information communications technology (ICT) (L7H_SU)
<ul style="list-style-type: none"> – Is able to publicly present his/her arguments and opinions on criminal policy 	<ul style="list-style-type: none"> – Is able to communicate on specialised topics with various audiences (L7H_SC)
<ul style="list-style-type: none"> – Is able to present the results of the most important discoveries made in the field of chemistry and related sciences, also to non-specialists in an understandable manner 	<ul style="list-style-type: none"> – Is able to communicate on specialised topics with various audiences (L7H_SC)
<ul style="list-style-type: none"> – Recognizes the threats to the rule of law and fundamental rights that arise in the course of the actions of authorities to prevent and combat crime 	<ul style="list-style-type: none"> – Is ready to critically evaluate received information (L7H_CE)
<ul style="list-style-type: none"> – Is ready to work with crime victims and direct them to institutions and organisations providing help; is ready to prepare a joint project of assistance 	<ul style="list-style-type: none"> – Is ready to fulfil one's social obligations, inspire and organise activities on behalf of society (L7H_CR)

* The learning outcomes were selected from among those identified in the Regulation of the Minister of Science and Higher Education on model learning outcomes for second-cycle studies in electronics (see the Regulation of the Minister of Science and Higher Education of 4 November 2011 on model learning outcomes, OJ 2011 No. 253, item 1521) and the set of learning outcomes for second-cycle studies in criminology (from the Institute of Social Prevention and Rehabilitation, University of Warsaw) and chemistry (Faculty of Chemistry, University of Warsaw).

PQF Level 7 Descriptors

KNOWS AND UNDERSTANDS:		IS ABLE TO:				IS READY TO:	
First stage generic descriptors (universal)		First stage generic descriptors (universal)				First stage generic descriptors (universal)	
L7U_K	an in-depth level of selected facts, theories, methods and the complex dependencies between them, also in relationship to other fields; the diverse, complex conditions and axiological context of conducted activities	L7U_S	complete tasks as well as formulate and solve problems with the use of new knowledge, also from other fields; independently plan one's own lifelong learning and direct others in this area; communicate with various target groups, appropriately substantiate one's position			L7U_C	establish and develop models of good practice in the environments of work and life; initiate actions, critically assess oneself as well as the teams and organisations in which one participates; lead a group and take responsibility for it
Second stage generic descriptors typical for higher education		Second stage generic descriptors typical for vocational education and training		Second stage generic descriptors typical for higher education		Second stage generic descriptors typical for vocational education and training	
L7H_KS	an in-depth level of selected facts, objects and phenomena as well as associated methods and theories explaining the complex dependencies between them, consisting of: <ul style="list-style-type: none"> advanced general knowledge of the academic or artistic disciplines on which their theoretical foundations are based structured and expanded theoretical knowledge of key issues selected issues from advanced, specific knowledge relating to the study programme the main scientific developments in the academic or artistic disciplines essential to the study programme	L7V_KT	an in-depth level of the theoretical foundations of the methods and technologies used in the occupation in association with other fields; the scientific developments of the occupational field ■ the principles of industrial property rights and copyrights relating to the occupation ■		L7H_SU	use one's knowledge to formulate and solve complex and non-routine problems as well as innovatively carry out tasks under unpredictable conditions by: <ul style="list-style-type: none"> properly selecting sources and information from them; conducting an assessment, critical analysis, synthesis and creative interpretation and presentation of this information, selecting and using proper methods and tools, including advanced techniques of information communications technology (ICT) 	
L7H_KX	the fundamental dilemmas of modern civilization; the economic, legal and other conditions of undertaking various types of activities relating to the awarded qualification, including regulations on industrial property rights and copyrights	L7V_KP	an in-depth level of the theories on the phenomena and processes relating to the occupation, enabling limitations to be overcome, which result from the characteristics of the materials, methods and technologies being used		L7H_SC	communicate on specialised topics with various audiences; lead debates; use a foreign language at the CEFR B2+ level and use specialised terminology at a higher level	
		L7V_KO	various, complex methods and technologies used in the occupation in the context of solutions utilised in other fields; various, complex organisational solutions used in the occupation in the context of solutions utilised from other field		L7H_SO	direct the work of a team	
		L7V_KM			L7V_SL	autonomously plan and implement personal lifelong learning and direct others in this area	
				L7V_ST	modify methods and technologies as well as procedures for the occupation		
				L7V_SL	direct the development of the professional competences of subordinate workers ■ share professional knowledge in various ways		
		L7H_CE	critically evaluate received information; recognize the value of knowledge in solving cognitive and practical problems		L7V_CI	monitor the developments of the occupation and related fields as well as its international conditions and contexts ■ predict the development of the situation in the field of the occupation	
		L7H_CR	fulfil one's social obligations, inspire and organise activities on behalf of society; initiate activities on behalf of the public interest; think and act in an enterprising manner		L7V_CF	require that others comply with the principles of the occupation on maintaining the quality of its performance as well as the culture of cooperation and the culture of competition	
		L7H_CP	responsibly fulfil professional roles taking into account changing social needs, including: <ul style="list-style-type: none"> further developing the achievements of the profession upholding the professional ethos complying with and developing the ethical principles of the profession and carrying out activities in accordance with these principles 		L7V_CC	maintain and establish proper relations in the professional community	
		L7V_CR	promote a culture of quality in the performed occupation; make decisions in high risk situations ■				

Level 8

Description of the level

PQF level 8 descriptors reflect the preparation of a person with a qualification at this level to analyse and creatively synthesise world scientific and artistic achievements to identify, formulate and innovatively solve very complex problems or conduct research to develop new achievements in the field. They indicate that the person:

- is able to define the purpose and object of study and formulate a research hypothesis,
- is able to use scientific and artistic achievements to develop existing and new methods, techniques and research tools, and creatively apply them in practice, including in the development of new materials, methods, technologies and products; is able to transfer the results of his/her work to the economic and social spheres,
- is able to design the legal and organisational conditions conducive to the development of conducted business,
- is able to plan and implement individual and collaborative research or creative projects; lead a group and take responsibility for it; participate in the exchange of ideas, also in the international community,
- is able to independently plan personal development and to inspire and organise the development of other people; develop education/training programmes and conduct them using modern methods and tools,
- is ready to uphold and develop the ethos of the research and artistic communities, develop and establish models of proper conduct in the workplace and in other environments, contribute creatively to improving quality and the culture of cooperation.

Selected learning outcomes as referenced to the relevant PQF level 8 descriptors

Learning outcomes*	PQF level descriptor
– Knows the methodology of scientific research as well as the legal and ethical aspects of scientific activity	– Knows and understands the methodology of scientific research (L8H_KS)
– Knows the ethical, legal and economic conditions of research and the work of a researcher, knows the methods of evaluating scientific publications, research projects and knows the principles of funding research	– Knows and understands the economic, legal and other essential conditions of conducting scientific research (L8H_KX)
– Is able to independently formulate a research problem and propose and conduct research to solve it	– Is able to take advantage of knowledge from different academic or artistic fields to creatively identify, formulate and innovatively solve complex problems or perform research activities, especially: <ul style="list-style-type: none"> • to define the aim and subject of the research, formulate a research hypothesis • develop research methods, techniques and tools and use them creatively • draw conclusions on the basis of research results (L8H_SU)
– Is able to prepare a text on scientific issues designed for non-specialists	– Is able to disseminate research results, also to the general public (L8H_SC)
– Is able to lead a national and an international research team, including a multidisciplinary team	– Is able to plan and implement one's own and a team's research or creative work, also in the international community (L8H_SO)
– Continues to shape a critical, autonomous and creative attitude towards the academic profession	– Is ready to uphold and develop the ethos of the research and artistic communities, including: <ul style="list-style-type: none"> • conducting research in an independent manner • respecting the principle of the public ownership of academic research results, taking into account intellectual property rights (L8H_CP)

*The learning outcomes were selected from the doctoral studies of the Faculty of Electronics and Information Technology at the Warsaw University of Technology, as well as the Faculty of Chemistry and the Faculty of Journalism and Political Science at the University of Warsaw.

PQF Level 8 Descriptors

KNOWS AND UNDERSTANDS:		IS ABLE TO:		IS READY TO:	
First stage generic descriptors (universal)		First stage generic descriptors (universal)		First stage generic descriptors (universal)	
L8U_K	the world's achievements in science and the arts and the resulting implications of this for practice	L8U_S	analyse and creatively synthesise scientific and creative achievements to identify and solve research problems as well as those related to innovative and creative activities; contribute new elements to these achievements; independently plan one's own development as well as inspire the development of others; participate in the exchange of experiences and ideas, also in the international community	L8U_C	conduct independent research which contributes to existing scientific and creative achievements; assume professional and public challenges taking into consideration: <ul style="list-style-type: none"> • their ethical dimension • responsibility for their results and develop models of good practice in such situations
Second stage generic descriptors typical for higher education	Second stage generic descriptors typical for vocational education and training	Second stage generic descriptors typical for higher education	Second stage generic descriptors typical for vocational education and training	Second stage generic descriptors typical for higher education	Second stage generic descriptors typical for vocational education and training
L8H_KS	L8V_KT	L8H_SU	L8V_SI	L8H_CE	L8V_CF
<p>the world's achievements relating to:</p> <ul style="list-style-type: none"> • theoretical foundations • general and selected specific issues of the academic or artistic discipline at a level enabling the revision of existing paradigms <p>the main scientific developments in the academic or artistic disciplines essential to the study programme;</p> <p>the methodology of scientific research</p>	the newest scientific achievements on which the theoretical foundations of the methods and technologies of the occupation are based	<p>take advantage of knowledge from different academic or artistic fields to creatively identify, formulate and innovatively solve complex problems or perform research activities, especially:</p> <ul style="list-style-type: none"> • to define the aim and subject of the research, formulate a research hypothesis • develop research methods, techniques and tools and use them creatively • draw conclusions on the basis of research results <p>transfer the results of research studies to the economic and social spheres</p>	create models of development for the occupation using relevant theories and the most complex information as well as draw conclusions from such models	critically evaluate the achievements of one's academic discipline; critically evaluate one's contributions to the development of that field; recognize the value of knowledge in solving cognitive and practical problems	develop principles of the occupation on maintaining the quality of its performance as well as the culture of cooperation and the culture of competition
L8H_KX	L8V_KP	L8H_SC	L8V_SO	L8H_CR	L8V_CC
the fundamental dilemmas of modern civilization; the economic, legal and other essential conditions of conducting scientific research	the most recent theories of phenomena and processes enabling new materials, methods, technologies, products and processes to be developed	disseminate research results, also to the general public; initiate debates; participate in academic discourse; use a foreign language at a level that enables participation in international academic and professional communities	produce a development strategy relating to the work of the occupation, design the legal and organisational conditions to benefit the development of the occupation; solve the most complicated problems, develop innovative solutions, also with the use of research results	fulfil the social obligations of researchers and artists; initiate activities on behalf of the public interest; think and act in an enterprising manner	maintain and establish proper relations in the international professional community
	L8V_KO	L8H_SO	L8V_SM	L8H_CP	L8V_CR
	the newest methods and technologies relating to the occupation used in the world; the newest organisational solutions relating to the occupation used in the world	plan and implement one's own and a team's research or creative work, also in the international community	develop new methods and technologies for the occupation	uphold and develop the ethos of the research and artistic communities, including: <ul style="list-style-type: none"> • conducting research in an independent manner • respecting the principle of the public ownership of academic research results, taking into account intellectual property rights 	cultivate a culture of promoting quality in the performed occupation
	L8V_KM	L8H_SL	L8V_SL		
		autonomously plan and act on behalf of personal development; inspire and organise the development of others; develop an education or training programme and implement it using modern methods and tools	develop training programmes and materials in the field of one's occupation		

Relevant legal acts and publications

Legal acts

1. The Act of 22 December 2015 on the Integrated Qualifications Framework (Journal of Laws 2016, item 64).
2. Regulation of the Minister of National Education of 13 April 2016 on second stage descriptors of the Polish Qualifications Framework typical for qualifications of a general character – levels 1–4.
3. Regulation of the Minister of National Education of 13 April 2016 on second stage descriptors of the Polish Qualifications Framework typical for qualifications of a vocational character – levels 1–8.
4. Regulation of the Minister of National Education and the Minister of Science and Higher Education of 17 June 2016 on second stage descriptors of the Polish Qualifications Framework typical for qualifications attained after having been awarded full qualifications at level 4 – level 5.
5. Regulation of the Minister of Science and Higher Education of 26 September 2016 on second stage descriptors of the Polish Qualifications Framework typical for qualifications attained in higher education after having been awarded full qualifications at level 4 – levels 6–8.

Supplementary publications

1. Sławiński S. (2016). *Słownik Zintegrowanego Systemu Kwalifikacji [Glossary of the Integrated Qualifications System]*. Warsaw: Instytut Badań Edukacyjnych.
2. Ziewiec-Skokowska G., Stęchły W. (2016). *Przypisywanie poziomu PRK do kwalifikacji nadawanych poza systemami oświaty i szkolnictwa wyższego [The alignment of PQF levels to qualifications awarded outside the formal general, vocational and higher education systems]*. Warsaw: Instytut Badań Edukacyjnych.

Annex. Definitions of selected terms relating to the Integrated Qualifications System

QUALIFICATIONS

Qualification – a set of learning outcomes (knowledge, skills and social competence acquired through a learning process), corresponding to established requirements, whose attainment has been assessed (validation) and formally confirmed by an authorised awarding body (certification).

Full qualification – a qualification awarded exclusively within the systems of formal general, vocational and higher education upon completion of a certain stage of learning, e.g. a certificate of completing primary school, an upper secondary school leaving certificate (*matura*), a diploma certifying the completion of first cycle studies (*licencjat*); all full qualifications are included in the Integrated Qualifications System (IQS).

Partial qualification – a qualification included in the IQS, which is not full, e.g. a certificate confirming qualifications in a given profession issued by a regional examination board, an accounting certificate, a certificate confirming the qualifications of an auditor, a certificate confirming the qualifications of a patent attorney.

QUALIFICATIONS SYSTEMS

National Qualifications System (NQS) – the mandatory policies and procedures in Poland on the confirmation of learning outcomes needed by the labour market, civil society and the individual development of learners, as well as on the institutions developing, awarding or recognising qualifications. An important element of the national qualifications system are the mechanisms of the quality assurance of qualifications.

Integrated Qualifications System (IQS) – the basic component of the national qualifications system (NQS) integrated by:

- introducing consistent national standards on the procedures of developing and awarding qualifications serving to ensure their quality;
- aligning all qualifications included in the IQS to their relevant PQF level;
- including all qualifications in one register (Integrated Qualifications Register – IQR).

The Integrated Qualifications System includes all full qualifications awarded in the formal general, vocational and higher education systems, partial qualifications awarded in the formal education system and partial qualifications awarded outside the formal education system that have been integrated into the system on the basis of individual decisions taken under the provisions of the Act on the IQS.

Integrated Qualifications Register (IQR) – a public register operating in an IT system listing the qualifications that can be attained in Poland and are incorporated in the IQS; the data on qualifications in the IQR are available to the public through the IQS portal.

QUALIFICATIONS FRAMEWORKS

European Qualifications Framework (EQF) – the structure of qualification levels adopted in the EU to which all national qualifications frameworks are referenced, enabling the comparison of qualifications attained in different EU countries.

Polish Qualifications Framework (PQF) – the structure of qualification levels included in the IQS. PQF levels correspond to EQF levels.

The alignment of a PQF level to a given qualification – a decision taken pursuant to the Act on the IQS on the PQF level for a given qualification and made by comparing the learning outcomes required for that qualification with PQF level descriptors.

AWARDING QUALIFICATIONS

Validation – assessing whether – regardless of the learning method used – the competences required for a given qualification have been attained. A positive result of validation is the basis for issuing a document (certification) confirming the awarding of the qualification by an authorised institution (awarding body).

LEARNING OUTCOMES

Knowledge – a set of descriptions of objects and facts, principles, theories and practices assimilated in the learning process that relate to the field of learning or occupational activity.

Skills – the ability to complete tasks and solve problems specific to the field of learning or occupational activity acquired in the process of learning

Social competence – the ability to participate autonomously and responsibly in professional and social life and to shape personal development, taking into account the ethical context of one's own conduct.

The division of learning outcomes into *knowledge, skills and social competence* adopted in the qualifications framework does not mean that there are clear boundaries between the different types of learning outcomes. Learning outcomes defined as *knowledge*, in practice, always include a component of skills. *Skills* always contain a certain element of knowledge, and *social competence* always includes some skills and knowledge.

The Polish Qualifications Framework. User's Guide

The User's Guide provides basic information about the Polish Qualifications Framework, its structure and the manner in which level descriptors are organised and presented. The publication contains specific guidelines to assist in understanding and interpreting individual descriptors. The specifics of successive levels of the Polish Qualifications Framework are discussed and examples are provided of selected learning outcomes and qualifications for individual levels.

The guide is intended to support persons who are involved in determining the level of qualifications. It will also be useful in the work of describing the required learning outcomes of a qualification and in developing sectoral qualifications frameworks.

Educational Research Institute

The Institute conducts basic and applied research, analyses and provides consultancy with the aim of strengthening evidence-based education policy and practice in Poland.

The Institute employs researchers specialising in education: pedagogues, sociologists, psychologists, economists, political scientists and representatives of other scientific disciplines – outstanding specialists in their respective fields with a wide spectrum of experience in scientific research, teaching, public administration and the activities of non-governmental organisations.

The Institute conducts international research projects and systemic projects co-financed, among others, by the European Social Fund of the European Union.



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