

SELF – CERTIFICATION REPORT  
OF THE NATIONAL  
QUALIFICATIONS FRAMEWORK  
OF ARMENIA

# TEMPUS ARMENQA

*This document was developed in the  
frame of TEMPUS ARMENQA Project  
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## **ABBREVIATIONS**

ANQA- National Center for Professional Education Quality Assurance Foundation

ARMENIC- National Information Center for Academic Recognition and Mobility

ARMENQA- TEMPUS Project on Implementation of National and Sectorial Frameworks in Armenia

BA- Bachelor

ECTS- European Credit Accumulation and Transfer System

EHEA- European Higher Education Area

ENQA- European Association for Quality Assurance in Higher Education

GoA- Government of Armenia

HEI- Higher Education Institution

Law on HPPE- Law on Higher and Postgraduate Education

MA- Master

MoES- Ministry of Education and Science

NQF- National Qualifications Framework

NQFA- HE- National Qualifications Framework of Armenia for Higher Education

NQFA- National Qualifications Framework of Armenia

QA- Quality Assurance

SQF- Sectorial Qualifications Framework

WG- Working Group

## PREFACE

This self-certification report was developed in the frame of TEMPUS ARMENQA Project on implementation of National and Sectorial Qualifications Frameworks (NQF and SQFs) in the Republic of Armenia. The Project is financed by the European Commission in the framework of the European Neighbourhood Policy. The wider objective is to enhance the employability of Armenian HEI`s graduates and facilitate the recognition of Armenian qualifications in the labor market nationally and internationally. As a result, it aims at the provision of coherency and relevance of the Armenian qualifications with the labor market and society demands, harmonization of the Armenian qualifications with those in EHEA, consistency of the national laws and regulations applying to education and training with ANQF goals.

Thus, according to one of the objectives of the Project to draft the self-certification report on the NQFA HE a Working Group has been established consisted of University representatives, as well as the National Information Center for Academic Recognition and Mobility. This report is the direct outcome of TEMPUS ARMENQA Project aiming at validation of the NQFA HE and its further implementation in Armenia.

# 1. SELF-CERTIFICATION OF THE NATIONAL QUALIFICATION FRAMEWORK OF ARMENIA FOR HIGHER EDUCATION

## 1.1 The purpose of self-certification

The Bologna process launched in 1999 is unprecedented by its scale and depth reformation process of the 47 European higher education systems with the main objective to create a competitive, fair and transparent European Higher Education Area (EHEA). One of the most important issues which is still on the agenda of several countries of the EHEA to create a National Qualifications framework (NQF) to ensure the comparability, transparency and transferability of the qualifications.

In 2003 in Berlin the Ministers responsible for higher education called for development of national qualification frameworks as well as elaboration of the overarching framework of qualifications of the European Higher Education Area later referred to as the Bologna Framework. Subsequently, in 2005 in Bergen Ministers adopted the Bologna (QF-EHEA) framework of qualifications with the aim to relate to each other different national qualification frameworks and to foster international transparency, recognition of qualifications and mobility of learners and graduates.

The Bologna Framework is based on the three cycles of higher education build upon the Dublin Descriptors, describing the general learning outcomes obtained by students through the completion of higher education programs at different qualification levels.

In London in 2007 the Ministers decided that the link between the QF-EHEA and national qualification frameworks should be established by a self-certification process where the national authorities verify the compliance of the national qualification framework with the Bologna framework. Later in 2009 the Ministers committed to completing their national frameworks and having prepared for self-certification by the end of 2012.

Similar to the Bologna framework, the European Union in 2008 adopted a European Qualification Framework for Lifelong Learning (EQF) based on an 8 level framework and including all types of education, trainings, and qualifications. The EQF is a common translation device enabling comparison of qualifications across Europe, where generic descriptors knowledge, skills and competences are used to describe learning outcomes. The EQF also encourages lifelong learning by promoting the validation of non-formal and informal learning.

The two frameworks QF-EHEA and EQF are serving different purposes: the Bologna Framework is an instrument for development of distinct model of higher education in Europe while EQF is serving for understanding different education systems without emphasis on harmonization of these systems. Despite the mentioned difference both frameworks are mutually beneficial and make possible recognition of learning of the individuals and facilitate their movement between education and training sectors and between the countries.

For the non-EU countries even if their national qualification framework is based on the 8 levels of the EQF referencing to the European Qualifications Framework (EQF) is voluntary, but referencing to the Bologna Framework is mandatory for all member states of the Bologna Process.

Armenia just after joining the Bologna process immediately started the development of Armenian National Qualifications Framework (NQFA) though the process took over 9 years.

## **1.2 Self-certification process**

In 2009 the Government of Armenia (GoA) adopted the NQFA –HE developed by a Working Group (WG) consisted of Ministry of Education and Science of Armenia (MoES) and University

representatives. Consequently, in 2012 the MoES initiated the NQFA-HE self-certification process by establishing a WG with members of Armenian Universities, National Center for Professional Education Quality Assurance Foundation (ANQA), National Information Center for Academic Recognition and Mobility (ARMENIC), MoES, National Center for Vocational Education and Training Development representatives on board, as well as two European experts. The main task of the WG was to prepare the self-certification report which verifies the compatibility of the NQFA- HE with the overarching Qualifications Framework of the European Higher Education Area and with the NQFA-HE against the verification criteria and referencing procedures.

After in-depth study of the existing experience of the Bologna member countries that have successfully completed the self-certification and/or referencing process, as well as wide consultations with the local stakeholders, the WG decided to carry the referencing of the NQFA-HE levels of Higher Education against the QF-EHEA.

The self-certification report has been prepared and checked against the seven self-certification criteria and five verification procedures of EHEA. The first consultations with the EU experts of the WG on the draft report revealed several issues that hindered the self-certification process, particularly NQFA-HE didn't:

- focus on the needs and realities of HE,
- serve as a transformation tool for changes
- ensure the flexibility of educational structures and new progression roots
- provide reference points for revision of existing qualifications and development of new ones
- is not fully consistent with QF- EHEA

Meanwhile, tools and procedures for the alignment and placement of qualifications were not in place which was another obstacle for the full operationalization of the NQFA-HE.

The WG come up with the proposal to revise the existing NQFA-HE based on the feedback received from the EU experts and wider consultations with the main stakeholders.

In 2013 the WG prepared a proposal for TEMPUS Project for the overall review of the NQFA for Higher Education and development the tools and methodologies for the system wide implementation.

In the frame of TEMPUS ARMENQA Project the NQFA for Higher Education was fully revised. Furthermore, the NQFA implementation national strategy and action plan, the procedures on aligning the new and existing qualifications to NQFA-HE, as well as other tools were developed to facilitate the NQFA-HE implementation were developed.

As of 2013 NQFA-HE WG started an unprecedented scale of consultations with academic community, labor market representatives, students and international colleagues. All the descriptors preliminary developed by the NQFA-HE WG at each HE level were discussed and revised with the main stakeholders. Furthermore, the results and the revised NQFA for HE were presented during major local and international conferences and seminars, including the 24<sup>th</sup> Annual Conference of EURASHE on the Qualifications for the labor market held in Yerevan on 15-16 May, 2014.

The current version of NQFA was adopted by the Government of Armenia on 30.06.2016.

## **2. HIGHER EDUCATION SYSTEM OF ARMENIA**

### **2.1 Structure of the Higher Education**

After declaration of independence of the Republic of Armenia in 1991, the country embarked upon a difficult transition period characterized by spontaneity of the higher education development.

The transition from the planned economy to market relationships opened up new perspectives for the higher education system, meanwhile posing a range of issues and new challenges. In particular, in Armenia, just like elsewhere in the world, large-scale participation and technological progress in the HE was the major tendency.

Since 1992 a range of Armenian universities have begun to make a gradual transition from one-tier degree system to two-tier one – together with the qualification of the Diploma Specialist introducing also the Bachelor's and Master's qualifications. The transition to the two-tier degree structure was conditioned by the development of the market economy and the new demand of



the labor market, as well as by the need of ensuring the compatibility with the international qualifications.

HE in Armenia is regulated by two major laws; i.e. Law on Education (1999) and Law on Higher and Postgraduate Professional Education (HPPE, 2004). The latter stipulates the structure, the main principles of organization and funding of the higher professional education and serves as basis for the systemic reforms of higher education. Currently, the Ministry of Education and Science is working on the new Law on Higher and Post-Graduate education to reflect on the recent development in HE of Armenia.

In Armenia the higher and postgraduate education is carried out in public and private universities, as well as in other educational and/or scientific institutions; i.e. institute, academy and conservatory. The Government ensures equal conditions for the activities of public and private accredited universities. In Armenia there is a three-tier system of HE which is carried out in the Bachelor's, Master's, and Clinical intern and Candidate of Sciences programs.

Individuals with full general secondary or middle vocational education can be admitted to higher education – based on the results of the competitive unified admission exams. For the purpose of ensuring the continuity of education and professional development consistent with the requirements of the particular period trainings and in-service education are organized for the specialists with additional education programs.

The HE in is organized in the following forms: full-time, part-time, distance and externship. 67% of the overall number of the students study in full-time and 33% in part-time systems. Although, most of the students choose the full-time studies, nevertheless, in recent years one can observe a significant increase of the number of students in the distance learning system.

Starting from 2007 ECTS credits were introduced through the sixth and seventh levels of NQFA –HE (QF-EHEA) which is regulated by the “The model procedures for the organization of learning process by credit system in the higher education institution”. It stipulates the main provisions, functions, norms and procedures of the credit system. According to the procedures, the annual workload of the student equaling to 60 ECTS credits (which is equivalent to 1800 hours), where 1 ECTS credit is equivalent to 30 hours of full workload of the student. The full

weekly workload of the student (classroom, out of classroom and individual) - 1,5 credit (which is equivalent to 45 hours). Thus, the workloads of the academic programs: for Bachelor's program - 180-240 (in case of medical professions - 300); for Master's program - 60-120 (in case of medical professions - 180) ECTS credit (with respective 23-30 and 15-22 hours of classroom workload).

In 2005 the admission to the 5 years long education program of Diploma Specialist has been terminated and those awarded before 2011 have been equalized to the Master's qualification.

## **2.2 Governance and funding of HE**

Ever since Armenia joined the Bologna process in 2005 the Armenian universities have been actively involved in the higher education modernization processes. The reforms' focus has been gradually shifted from the political decisions and Government actions to the intra-university level of reforms. The students' participation to the university governance, as well as to the internal and external quality assurance processes has significantly increased.

The university autonomy has several dimensions; i.e. organizational (governance), financial, personnel and academic. According to the university autonomy ranking table developed by the European University Association (EUA) the Armenian universities occupy relatively favorable position among the European universities.

According to the existing legislation the governance of the universities is done on self-governance basis – in combination of individual management and collegiate style attributes by implementing the functions of the university board (or board of trustees), scientific council and Rector's office. The university board is a collegial governance body, which is established for a period of 5 years and formed from the representatives of the university faculty and students, as well as members appointed by the RA Government and Ministry of Education and Science – equally represented (25% each).

The Scientific Council of the university is an advisory body that deals with the organization, planning and governance of teaching and learning, R&D activities. The everyday management of the University is performed by the executive body of the university; i.e. Rector, who is elected on the competitive basis by the university Board for a period of 5 years and the results are approved by the Government of RA.

The main source of financing of RA public universities is the income derived from paid services (educational, research and development, scientific-industrial, etc.) and allocations from the State budget. The financing of the universities from the state budget is calculated as per student taking into account the type of the educational institution and education level. The private universities generally do not receive allocations from the state budget. The State provides the entire property of the public universities (except for property procured by own resources), including buildings and facilities for free and open ended use and cannot be sold or rented without the RA Government decision. The university is independent to manage its financial resources, including: the remuneration and financial rewards of the staff.

State funding of Higher Education is traditionally allocated to the HEIs based on the model of state order in form of scholarships to students applying for the specialization quotas allocated to the HEI by the Government of Armenia. All scholarship students, with very few exceptions, are also eligible to a monthly stipend from the government. About 90% of scholarships holders are awarded stipends, provisional on their academic progress.

Each year the Government decides on the number of specialists required and allocates relevant funds to HEIs for the execution of this task. The amount that the Government allocates for scholarship recipients are based on transparent normative cost figures. State funding of Higher Education varies between 15-20%, meanwhile the rest of HEI revenues are formed from the fees paid by the students.

### **2.3 Quality Assurance**

In Armenia wide discussions on the implementation of QA system in the higher education were launched after joining the Bologna process (2005). However, QA procedures became more coordinated recently, when in 2011 RA Government stipulated new requirements for

mandatory university and education programs' voluntary accreditation namely, "Procedures for State accreditation of educational institutions carrying out professional educational programs in RA and professions thereof" and "Criteria for accreditation of RA professional education". EHEA QA European Standards and Guidelines (ESG) guided the reforms in QA implementation.

The new accreditation procedures stipulated the mandatory institutional (university) and voluntary program (professional) accreditations (except for medical professions) as QA main process. The institutional accreditation is of cyclic nature and mandatory precondition for program accreditation. The accreditation criteria are divided into two groups: institutional accreditation (10) and program accreditation (7) criteria.

The organization and implementation of accreditation procedures are coordinated by the "National Center of Professional Education Quality Assurance" foundation (ANQA) established by the Government, which has operational independence, which is registered in the European Quality Assurance Register for Higher Education (EQAR). However, Armenian universities can also apply to international accreditation organizations registered in the EQAR, as well as full-fledged members of European Association for Quality Assurance in Higher Education (ENQA) for the purposes of accreditation.

The decision about the state accreditation is made by ANQA Accreditation Commission. It was established by the RA Government in 2011 along with the procedures of forming the external assessment expert group. The decision on accreditation, in case of lack of regulatory violations, is approved by the Minister of Education and Science. The institutional accreditation is issued for a period of 6 or 4 years and the conditional one – for 2 years. The program accreditation is issued for 5 years and conditional one – for 2 years. All the costs with regard of accreditation are covered by the universities.

The introduction of mandatory institutional accreditation had a significant impact on the formation of university quality assurance internal systems and further development, which is based on the outcomes of internal self-assessment. Thus, following ESG requirements – the majority of RA universities founded QA specialized bodies, which developed the overall

university QA policy and regulated the procedures. Specialized bodies, departments were created within the Universities to monitor the quality of internal processes and education.

## **2.4 Armenian National Qualifications Framework**

Following the implementation of the main Bologna principles in 2007 Armenia started the development of National Qualifications Framework (NQFA). In this direction an important step was the adoption of RA Education National Qualifications Framework by the Government in 2011, which was developed with the expert assistance of the European Council, of which MoES made a decision still in 2007. NQFA includes 8 education levels and in each of them the qualifications are described by the final learning outcomes expressed in the form of knowledge, capacities and skills. However, one should mention that during the Framework self-certification process certain challenges emerged about its compatibility with EHEA qualifications framework and European Qualifications Framework. Hence, upon advice of the European experts in 2014 the draft National Education Qualifications Framework was developed, which consisted of eight educational levels. The revised NQFA was adopted by the Government of Armenia in 2016.

The revised NQFA, as already mentioned, consisted of 8 levels and the last three levels to HE. The NQFA-HE was built on Dublin Descriptors and adjusted to QF EHEA. Each level describes the learning outcomes in terms of knowledge, skills and competences. ECTS credits are assigned to each level, particularly having 180-240 ECTS at sixth, 60-120 ECTS at seventh and 180-240 ECTS at eighth level.

The Armenia Higher Education System is formed in three levels with the qualification titles defined at each level. The first level of NQFA –HE corresponds to the sixth level of QF EHEA. Currently, there is only Bachelor Degree at this level defined.

Bachelor's Degree has 4 (for some professions 3) years of training and 240 (180) ECTS credits workload. The part-time learning lasts for 5 (4) years. The medical professions have Doctor's qualification on this level with duration of 5-6 years in integrated educational programs which is equated to the Master's degree (it still does not reserve the right of individual professional

activities). On this level the entry requirements are: secondary, preliminary or middle professional education and results of unified admission competitive exams, meanwhile at graduation a graduation work (thesis) and final graduation exam is required.

On the second level of NQFA-HE, corresponding to the 7<sup>th</sup> level of QF EHEA there is Master's Degree with 2 (for some professions 1) years of training and 120 (60) ECTS credits workload. In case of part-time learning the duration of the learning is 2, 5 (1, 5) years. On this level for the medical professions, in addition to the Master's degree, there are qualifications of intern and resident, the first of which is for practicing military medicine and the second also for specializing in narrow professional area based on the qualification received on the previous education level. On this level an entry requirement is the Bachelor's (Doctor's) qualification and the graduation is certified through defending a Master's thesis (for qualification of intern and resident – by means of final graduation exam).

There is also Diploma Specialist Degree defined for this level having 5 years of training and 300 ECTS credits. However, currently rare HEIs in Armenia deliver Diploma Specialist programs and the qualification of Diploma Specialist is considered equal to Master Degree according to the Law on HPPE (2004).

On the third level there are the (scientific) degrees of Candidate of Sciences and Doctor of Sciences. There are no ECTS credit workloads for these two qualifications; however the duration of the qualification of the Candidate of Sciences is 3 (in case of part-time learning - 4) years. On this level the entry requirements for the Candidate of Sciences are the Master's and Diploma Specialist's qualifications and results of admission competitive exams, meanwhile a qualification of Candidate of Sciences is required for the qualification of Doctor of Sciences. For both of qualifications the certification is done by public defence of Candidate's or Doctor's dissertation– based on the submission of the respective portfolio to the State Certification Commission.

However, taking into account of the difficulties the HEIs face during the implementation of NQFA-HE, the Ministry of Education and Science decided to start the development of Sectorial Qualifications Framework (SQF) in individual fields consistent with general descriptors of NQF. Particularly, the experts working on the revision of NQFA-HE joined their efforts and applied

to TEMPUS Capacity Building Project (Implementation of National and Sectorial Frameworks in Armenia- ARMENQA) which was successfully funded. In the frame of this Project 5 SQFs, namely in Education, Physics, Law, Civil Engineering and Agriculture were developed and piloted in the participating Universities. Furthermore, several study programs at sixth and seventh levels of NQFA-HE were referenced to the SQFs.

### 3. CRITERIA AND PROCEDURES FOR SELF-CERTIFICATION

The Committee on self-certification has evaluated whether the Armenian Qualifications Framework for HE meets the seven criteria and six procedures elaborated by the Bologna Working Group on Qualifications Frameworks. This Chapter contains the Evaluation and Conclusions of the self-certification Committee.

The purpose of the verification criteria as it is mentioned above is to ensure the compatibility but not necessarily total match between the cycle descriptors of the NQFA for HE and the QF-EHEA (Dublin Descriptors). And the purpose of the verification process is to ensure that the self-certification process is carried out by the competent national authorities in cooperation with international experts, as well as to ensure that the results of the self-certification process are publicly available for the interested parties.

*The Self-certification Committee has concluded that the National Qualifications Framework for HE of RA meets all seven verification criteria.*

**Criterion 1: The national framework for higher education qualifications and the body or bodies responsible for its development are designated by the national ministry with responsibility for higher education.**

The overall responsibility for the National Education Qualifications Framework of the RA lies with the MoES. The NQFA for HE was developed by the WG settled with the order of the

Minister for Education and Science of RA and consisted of representatives from Higher Education Institutions. The WG group worked both with University representatives and the labor market to come up with commonly acceptable description of HE. The final NQFA was validated by the Ministry of Education and Science of RA and adopted by the Government of RA in 2016.

The MoES is the central government body that has the overall authority to design education policy and ensure the implementation. All the policy concerning the NQFA for HE is approved by the latter.

Within TEMPUS ARMENQA the Strategy on implementation of NQFA for HE was developed and submitted to the MoES for further approval. The Strategy defined all the objectives and activities for the coming 5 years along with the responsible bodies for implementation. Furthermore, the Concept Paper on functionalities of the body in charge of implementation of the National Qualifications Framework for HE was developed to define the main functions and goals of the Body in charge of NQFA for HE.

The ARMENIC acts as national information point for NQF HE.

**Criterion 2: There is a clear and demonstrable link between the qualifications in the national framework and the cycle qualification descriptors of the European framework.**

The objective of the self-certification is to ensure that the NQFA-HE is in accordance with the QF EHEA. There is no requirement for a perfect match between the descriptors employed in the two frameworks. To find the links and comparability of NQFA -HE and QF EHEA the self-certification committee conducted a principal analysis and assessment of the qualification level descriptors contained in the two frameworks.

In this context, it is worthy to mention that during the recent years the MoES of Armenia and the higher education institutions has been systematically implementing the Bologna reforms and simultaneously consolidating these changes by revising national and institutional legal frameworks, thus creating appropriate and transparent links not only between the QF-EHEA but also between the EQF.



Thus the analysis has been done in several contexts: the internal consistency and natural progression between the levels, the overall structure and consistency with QF EHEA and the comparability of level descriptors in terms of width and depth.

The self-certification Committee has reviewed the descriptors at each level of the NQFA-HE in terms of hierarchical and horizontal progression, the depth and width of knowledge, skills and competences at each level. The Committee concluded that the descriptors articulate the current HE in Armenia and clearly defines the outcomes at each level, ensuring the hierarchical progression in all the three domains: i.e. knowledge, skills and competences.

The Committee has concluded that the NQFA-HE has been created with the same logic and embedded concept as the QF-EHEA and has comparable goals. It has the same architecture of the three sequencing cycle's in HE, i.e. bachelor, master and doctoral level that are situated in vertical hierarchy and have comparable duration. There are no qualifications in the Armenian HE system compatible with the short-cycle of the QF-EHEA, thus the HE system description starts with the 6<sup>th</sup> level.

The study cycles are described with the learning outcomes that are in consistence with the Dublin Descriptors. Furthermore, the Committee justified the current NQFA-HE with the fact that Armenia, starting from 1991 has gradually implemented the three-cycle degree system and by now all the Universities in Armenia (with minor exceptions) deliver the HE in a three-cycle system. Furthermore, the allocation of ECTS credits has been implemented starting from 2007 thus ensuring a compatible workload at each level.

The Committee studied several documents of NQFA-HE published at different stages of its development and it was clear that both the degree type descriptions and the level descriptions were formulated with reference to the Dublin descriptors, though they were not articulated in the same wordings. The Committee members have emphasized that referencing to the Dublin Descriptors made the level descriptors more clear and concise and are in line with those in QF EHEA.

During the analysis of the NQFA-HE and QF-EHEA it was clear that there is some coincidence in wording, however in general the NQFA-HE reflects the concepts and descriptions of the QF. Moreover, since the NQFA-HE was originally built on Dublin Descriptors, it provides more

details on knowledge, skills and competences providing added value to the NQFA-HE. Subsequently, the NQFA-HE includes more details involving problem-solving, communication, ICT use, extent of autonomy and level of responsibility .

There are several learning outcomes described at each level which were adjusted to the Armenian context of HE and are not linked to the QF EHEA per se.

In the tables (1-3) one can see the level descriptors colored in red, green and blue. The Committee used three colours to show the similarities, differences and statements that contribute to the more general statements in terms of knowledge, skills and competence between the NQFA-HE and QF EHEA.

**Green:** there is precise, similarity between the descriptors of the two levels of NQFA-HE and QF EHEA articulated in similar or different words.

**Red:** there is difference between the descriptors of the two levels of NQFA-HE and QF EHEA, however not contradicting, underestimating or overestimating the value of general descriptor.

**Blue:** there are statements that make an added value to the general descriptor.

**Table 1: Comparison of Level 6 of NQFA-HE with QF EHEA level 6**

	NQFA-HE	QF EHEA
<b>Knowledge</b>	Demonstrates advanced knowledge and understanding of basic and state-of-the-art concepts, theories and methods within the field of professional work or study.	Advanced knowledge of a field of work or study, <b>involving a critical</b> understanding of theories and principles
<b>Skills</b>	<p>Can apply acquired knowledge and understanding, basic principles and methods of the field for solving problems during the professional work or study.</p> <p>Can communicate and explain information, arguments, ideas, problems and their solutions that are related to the given field to the specialist and non-specialist audiences.</p> <p>Can apply ICTs to solve problems and intensify work in the specialty area.</p> <p>Can collect, process, analyse and interpret relevant quantitative and qualitative data within the specialty area to make reasonable judgments.</p> <p>Can analyse and make judgments applying critical thinking, as well as demonstrate creativity to</p>	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialized field of work or study

	identify and provide different solutions to the problems of the specialty area.	
<b>Competence</b>	<p>Can undertake full-fledged professional activity, manage professional functions and projects, and make autonomous decisions.</p> <p>Can manage working team and take on responsibility for the professional activity of its members.</p> <p>Is able to identify one's educational needs and/or career opportunities to decide on the ways of further study.</p> <p>Is able to take personal responsibility for the nation and the State, follow up the realization of democratic principles and dissemination of national and human values.</p>	<p>Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups.</p>

**Table 2: Comparison of Level 7 of NQFA –HE with QF EHEA level 7**

	<b>NQFA-HE</b>	<b>QF EHEA</b>
<b>Knowledge</b>	<p>Demonstrates profound professional knowledge, including on the recent achievements of the field, which applies for study, work and research.</p> <p>Demonstrates deep understanding of theories, advanced concepts and methods of the given specialty and at the interface between different fields.</p>	<p>Highly specialized knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research</p> <p>Critical awareness of knowledge issues in a field and at the interface between different fields</p>
<b>Skills</b>	<p>Can apply acquired knowledge and understanding, advanced principles and methods of the specialty area and/or related intersecting fields to solve complex theoretical and practical problems in new and unfamiliar situations, and to implement research and innovative activities.</p> <p>Can use professional communication means to communicate clearly and coherently one's conclusions, respective arguments and research results to the broad specialist and non-specialist audiences.</p> <p>Can apply ICTs thoroughly to solve new complex problems and to support conducting research in the specialty area and/or related intersecting fields.</p> <p>Can analyse and evaluate quantitative and qualitative data within the specialty area and/or related intersecting fields to draw conclusions and make decisions on the basis of incomplete or limited information.</p>	<p>Specialized problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields</p>

	Can investigate problems related to the specialty area and generate innovative and creative solutions, as well as offer new ideas and concepts that extend knowledge and practice of the field.	
<b>Competence</b>	<p>Can undertake activity in a specialised field of work and/or study requiring new strategic approaches for managing and transforming complex and unpredictable work situations.</p> <p>Can create and manage professional or research team and take on lead responsibility for the professional advancement of its members.</p> <p>Is able to evaluate one's demand for continuous study and needs for professional development to continue education in different environments.</p> <p>Is able to promote the development of civic society and combine national value system with common human values.</p>	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of team

**Table 3: Comparison of Level 8 of NQFA-HE with QF EHEA level 8**

	<b>NQFA-HE</b>	<b>QF EHEA</b>
<b>Knowledge</b>	<p>Demonstrates advanced knowledge specific to the specialty area and related intersecting fields, which applies in scientific research and professional work.</p> <p>Demonstrates comprehensive and deep understanding of state-of-the-art theories, approaches, new hypotheses and scientific-research methods specific to the specialty area and related intersecting fields.</p>	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields
<b>Skills</b>	<p>Can apply acquired knowledge and understanding, conceptual principles and advanced methods of the field to plan and conduct scientific-research activities and to give innovative solutions to the complex theoretical and practical problems.</p> <p>Can use advanced principles and methods to communicate and interpret, from multiple perspectives, new and complex theoretical and practical problems and the research results to the scholarly community and wider society.</p> <p>Can apply ICTs in a proficient way to implement scientific research and create new knowledge.</p> <p>Can evaluate and transform a wide range of quantitative and qualitative data from different interrelated fields to generate complex ideas and create new knowledge.</p>	The most advanced and specialized skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice

	<p>Can generate new, complex and abstract ideas, offer and/or present new and original insights on current information and issues based on the evaluation of scientific-research results.</p> <p>Can design and implement original research, theorise the results of the latter, which make contribution to the scientific field and/or professional practice and are published in national and international peer-reviewed journals.</p>	
<b>Competence</b>	<p>Can initiate and manage complex innovative processes at the forefront of the scientific-research, academic and professional fields by demonstrating scholarly and professional integrity and autonomy.</p> <p>Can create and lead a scientific-research or professional team and promote the research advancement of its members.</p> <p>Is able to promote the scientific, technological, social or cultural progress of the society within academic and professional contexts.</p> <p>Is able to promote the sustainable development of science, the nation and the State by protecting national and common human values.</p>	<p>Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research</p>

To resume the above mentioned it can be claimed that the NQFA-HE descriptors either implicitly or explicitly correspond to those in QF-EHEA. The differences might occur in the detailed descriptors that are called to provide an added value to the general descriptors. It should be stated also that national context has been taken into account not only in terms of general descriptors articulating the learning outcomes at each level, but also specific statements on more obtaining more general values not necessarily connected with the profession per se. Hence, it can be concluded that the Criterion 2 has been met.

**Criterion 3: The national framework and its qualifications are demonstrably based on learning outcomes, and the qualifications are linked to ECTS or ECTS compatible credits.**

### ***HE Study programmes***

The Armenian Higher Education Framework is rather straightforward in sense that it includes only higher education formal qualifications at the levels 6, 7 and 8. These type of qualifications were introduced in Armenian HE in the beginning of 90's by two universities and only a decade later after Armenia embraced the European orientation of higher education reforms the qualifications were change and are still in process of change (e.g. Qualifications in medicine) according to the Bologna process. Level descriptors in form of learning outcomes are used to describe Bachelor, Master and Doctoral Degrees. Learning outcomes are used to describe the gained knowledge, acquired competences and skills of the graduates at the end of study programs. Study programs used to be developed on the basis of the state education standards where subject oriented learning outcomes are used to describe the knowledge-ability to understand and to implement it in practice, competences referring to potential capacities and individual characteristics that ensure professional achievements in the specific subject area. However, after the adoption of NQFA by the Government of RA, the Strategy plan on the implementation of the NQFA in HEIs is planned for the 2017/2018 academic year. Particularly, the study programmes in the specific field should be described with learning outcomes in line with NQFA/SQF and provide mechanisms for the verification of the latter. However, full implementation of the NQFA-HE will require some time and strong training for the teachers to overcome the difficulties they face.

In the frame of TEMPUS ARMENQA project 1 BA and 1 MA in the field of Education, Law, Physics, Civil Engineering and Agriculture were restructured and described with the use of learning outcomes. Meanwhile the learning outcomes were referenced to the SQFs in the respective field compatible with NQFA-HE. This exercise will be disseminated to the HEIs for further consideration when revising the study programs.

### ***Validation of learning outcomes attained outside of the formal education system Higher education***

In HE of RA it is up to the Universities to decide whether the learning outcomes gained outside of the University can be recognized. However, one should mention that this is not common in Armenia and the Law on HPPE doesn't the procedures for validating learning outcomes achieved outside of this system. However, the development and adoption of NQFA-HE would facilitate this issue in future providing reference points for the validation of learning outcomes gained out of the formal HE system.

### **ECTS credits and transfer**

The ECTS credit system is implemented throughout the Armenian HEIs as of 2007. It is fully implemented and working tool across all the study programs and qualification levels. All the three qualification levels define admission requirements, required duration in years and corresponding ECTS range, final requirements for a degree award, progression to the next level. The measure the student workload a credit system compatible with the ECTS is used where 1 credit = 27 hours. A total of 180-240 ECTS points are required for the Bachelor level, 60-120 ECTS point for Master level. In 2011 MoES introduced ECTS for the structured components of the Doctoral programs. A total of 180 ECTS points are required for the Doctorate level.

In 2011 the MoES of RA adopted the Procedures on Academic Mobility, where some elements of ECTS credit transfer across the study programs are described. However, the established practice hinders the full implementation of ECTS system as accumulation and transfer system.

The Self-certification Committee concluded that, though a structured work should be organized towards the full implementation of NQFA HE for the validation of non formal and informal learning, the Criterion 3 has been met.

**Criterion 4: The procedures for inclusion of qualifications in the national framework are transparent.**

Based on the consultations with the HEIs, the MoES and the Self-certification WG, as well as the analysis of the study programs and qualifications it was decided that the current qualifications will be included in the Qualifications Register. Concerning the newly developed qualifications, within TEMPUS ARMENQA Project The Procedures for Inclusion of Higher Education Qualifications in National Qualifications Framework for Higher Education of

Republic of Armenia have been developed. According to this the new qualifications should be verified through 13 criteria, namely:

1. Title of the Qualification
2. Field and sub-field of the Qualification
3. Level of the Qualification
4. Rationale for the Qualification
5. Purpose of the Qualification
6. Workload in ECTS credits
7. Access to the Qualification
8. International comparability (Benchmarks)
9. Graduation (integrated) attestation/assessment
10. Areas of academic/professional work
11. Access to further studies
12. Relation to other qualifications (inter/multi-disciplinarity)

The verification will be conducted through the Evaluation Committee assigned by the MoES of RA. The MoES is the authorised body to approve the new qualifications and include them in the national register of qualifications. Meanwhile, the national register for qualifications will be coordinated by the special body established within the MoES.

**Criterion 5: The national quality assurance system for higher education refers to the national framework of qualifications and is consistent with the Berlin Communiqué and any subsequent communiqués agreed by ministers in the Bologna Process.**

In Armenian HE the quality assurance procedures apply to all qualifications awarded in the formal higher education. The external quality assurance is coordinated by ANQA established on November 7, 2008 under the Government Decree (No. 1486N) and is currently full member of ENQA. ANQA is the primary provider of institutional and program accreditation services for the Armenian tertiary education. ANQA implements quality assurance processes through institutional and programme accreditation in preliminary, vocational and higher educational institutions.



Following the establishment of ANQA on 30 June, 2011 under the RA Government Decree N 959 were approved the RA Educational Accreditation Criteria, which are based on the ESG and thoroughly comply with its requirements.

As it was mentioned earlier, ANQA conducts institutional and programme accreditation. The last is done on voluntary basis, though during the institutional accreditation two study programs are also studied in detail to fulfill the programme accreditation criteria. At programme level there are 7 criteria, particularly:

1. Academic programme design and approval,
2. Teaching staff,
3. Teaching and learning practices,
4. Student assessment,
5. Research and development,
6. Learning environment,
7. Quality assurance

According to these Criteria the compliance of academic programs with the RA National Qualifications Framework is a requirement for both institutional and programme accreditations.

**Criterion 6: The national framework, and any alignment with the European framework, is referenced in all Diploma Supplements.**

As of 2007/2008 academic year all the Higher Education Institutions are obliged to issue Diploma Supplements in English and Armenian languages. The HEIs as autonomous entities issue their own developed forms of DS following the template approved by the Government of Armenia in 2007 to conform to the Bologna requirements. According to the Instruction Letter on the completion of Diploma Supplement issued by the Ministry of Education and Science to the HEIs there is a clear reference on the NQFA-HE describing the level and the statute in the qualifications hierarchy. The existing DS will be modified after the successful completion of the self-certification process to confirm the conformity of NQFA-HE with QF EHEA.

**Criterion 7: The responsibilities of the domestic parties to the national framework are clearly determined and published.**

According to the Government decrees (March 31, 2011, 332-N and August 25, 2011, 1230-A) the main authority with responsibility in relation to the NQFA-HE is the Ministry of Education and Science (MoES). Furthermore, the MoES has established a body responsible for the NQFA, coordination of the work concerning the validation of qualifications and their inclusion into the qualifications register.

Other actors with responsibilities are the two accreditation bodies: ANQA and the independent Accreditation Commission, which are responsible for ensuring the alignment of specific educational programmes learning outcomes with the level descriptors in the NQFA-HE. The National Information Center for Academic Recognition is the main body and national information point regarding the NQFA-HE.

Responsibility for the implementation of the NQFA-HE at the curricula level rests with the institutions of higher education, which are responsible for incorporating learning outcomes in line with the degree type descriptions in their descriptions of each study curricula.

The division of responsibilities is not clearly defined in legislation yet. However, the Strategy on the Implementation of NQFA-HE in Armenia envisions clarification to this issue during the upcoming 5 years.

#### **4. PROCESS OF SELF-CERTIFICATION**

**Procedure 1: The competent national body or bodies shall self-certify the compatibility of the national framework with the European framework.**

A Steering Committee designated by the MoES of the RA and represented by the Rector's council, a student organization, the National Center for Professional Education Quality Assurance (ANQA), Supreme Certification Commission and an international expert have undertaken the verification process and reported back with recommendations to the MoES.

The draft report was introduced to relevant interested parties and stakeholders and after final revision the final report was produced. The final report was widely discussed by the MoES and

other relevant Ministries, and afterwards submitted to the Minister of Education and Science for approval.

The self-certification report will be published on the MoES official website.

**Procedure 2: The self-certification process shall include the stated agreement of the quality assurance bodies in the country in question, as recognised through the Bologna Process.**

The National Center for Professional Education Quality Assurance Foundation (ANQA) is the body responsible for the external quality assurance in Armenia. The self-certification report was written in close consultation with the ANQA and the members of the independent Accreditation Committee affiliated to ANQA. The report is the direct outcome of the consultations with the reference groups and stakeholders. All the statements articulated in this report were widely agreed with the ANQA and Accreditation Committee thus confirming the compatibility of the NQFA-HE with the QF-EHEA.

**Procedure 3: The self-certification process shall involve international experts.**

The WG on the self-certification report was formed by the Minister's order in the frame of TEMPUS ARMENQA Project. The WG involved national experts from University and ARMENIC representatives, as well as two EU experts, namely: Professor Janerik Lundquist from the Linkoping University, Sweden and Professor Gehmlich Volker from the Osnabruck University of Applied Sciences, Germany. Both of the experts have long experience in the reforms in Higher Education and especially, Bologna Process.

The WG working on the self-certification report constantly consulted with the international experts by electronic mail, face to face meetings and seminars. Thus, the outline and the content of the reports have been discussed from the outset. Furthermore, after finalising the self-certification report in the frame of TEMPUS ARMENQA Project the MoES has invited two International Experts from the Council of Europe to hold the final consultations and submit the revised report to the stakeholders for further recommendations and feedback. The International Experts from the Council of Europe, namely: -----, have taken active role in the preparation and finalisation of the final self-certification report.

**Procedure 4: The self-certification and the evidence supporting it shall be published and shall address separately each of the criteria set out.**

The self-certification report once completed and approved by the Minister of Education and Science it will be forwarded to the responsible bodies to ensure its further publication and availability to various stakeholders. The self-certification report will be published on the official website of the MoES, ARMENIC, as well as EHEA website.

**Procedure 5: The ENIC and NARIC networks shall maintain a public listing of States that have confirmed that they have completed the self-certification process.**

The ARMENIC was involved in the development of the Armenian NQFA process since the beginning in 2007. It was involved in the Self-certification WG on self-certification during the first cycle in 2011. Two experts from the center were the members of the self-certification working group.

During the first cycle of self-certification of the NQFA-HE the Director of ARMENIC was WG member and chaired the process. Thus, it was involved in the NQFA development processes from the outset of the process.

After successful completion of the self-certification process ARMENIC will notify about the NQFA to all stakeholders, publish it in its website and also inform ENIC-NARIC network.

**Procedure 6: The completion of the self-certification process shall be noted on Diploma Supplements issued subsequently by showing the link between the national framework and the European framework.**

In Armenia, Diploma Supplements are issued by the HEIs awarding degrees using the national template. The national model template was introduced in 2008. There is clear reference in the Diploma Supplement in the section “3. Information on the qualification”, where the reference to the corresponding level of NQFA-HE is made.

Currently, there is Europe wide consultation on the revision of the Diploma Supplement. After the new template is introduced and the the successful completion of the self-certification process Armenian authorities will review existing template of the Diploma Supplement and will include the result of compliance of NQFA-HE to QF-EHEA.

## 5. INVOLVEMENT AND CONSULTATION OF STAKEHOLDERS

The Stakeholders, such as student bodies, quality assurance bodies, labor market representatives were involved in the consultation process of the NQFA-HE self-certification report through regular meetings and workshops organized by the WG.

The reference group made general comments to the self-certification report providing external insight to it and thus targeting specific issues. Furthermore, the WG group discussed the issues of further implementation of NQFA-HE in Armenian HEIs and their particular viewpoint on it. Indeed, several issues were raised by the stakeholders concerning the further implementation of NQFA-HE in Armenia and particularly:

- The reference group was concerned about the study programmes that are currently described with the learning outcomes as specified in the State Standard and they do not fully articulate the level descriptors of NQFA-HE. Besides, it was mentioned that the process will need specific guidance within the HEIs to review the study programs in line with the NQFA- HE.
- The study programmes as well as the NQFA should provide flexibility for different learning paths, since the fixed structure of NQFA-HE and study programs will prevent the development of labor market oriented programmes thus hindering the match to the modern societal needs.
- Furthermore, the content of the study programmes, teaching and learning methods, as well as assessment methods should be improved to ensure the learning outcomes anticipated by the study program. The academic staff in the Armenian HEIs still in many cases follows the inertia of the established “old” system and the transformation to new culture is still a challenge.
- There are still incomplete relations between the professional labor market and HEIs; in particular, the low participation of the employers in the development of the higher professional education qualifications and study programmes, implementation and piloting processes, as well as lack of SQFs in various professional areas.

The reference group was introduced with the Strategy on the implementation of NQFA –HE in Armenia and the activities planned for the coming 5 years. The stakeholders found this useful

for the wider dissemination and implementation of NQFA-HE in Armenia and highlighted specific activities that should be considered by the MoES and HEIs in their policy planning:

- Improve the relevance of the qualifications and study programs; review the profile and content to the needs and requirements of the labor market;
- Review the development methodology of the study programs that are based on transparent procedures, labor market oriented, referenced to the NQFA-HE and are articulated in learning outcomes;
- Review the content, descriptors, access and graduation conditions for the qualifications in HE at all the three levels;
- Ensure mechanisms for the engagement of the employers in the peer review and reforming process of the study programs;
- Review and improve the legal framework of HE in the areas of recognition of foreign qualifications and particularly: awarding joint and double qualifications jointly with foreign and local HEIs, as well as provision of cross-border education.
- The NQFA-HE should be widely disseminated among the main stakeholders especially the labor market and students and awareness raising campaigns organized to ensure that the stakeholders are aware of the tool and make use of it.

**ANNEXES:**

1. Decision of the Government on the adoption of the NQFA
2. National Qualifications Framework for HE of Armenia

GOVERNMENT OF THE REPUBLIC OF ARMENIA

DECISION

July 7, 2016 N 714-N

ON AMMENDING THE DECISION N 332-N OF THE RA GOVERNMENT DATED 31  
MARCH, 2011

In accordance to the paragraph 2.1 of Part 1 of the Article 36 of the Law on Education of the Republic of Armenia the RA Government decides on:

1. Make the following changes to the decision N 332-N of the Republic of Armenia dated on 31 March, 2017 “On the approval of the National Qualifications Framework of the Republic of Armenia”:

1) remove the word "education" in the title from the Decision,

2) to rewrite the paragraph 1 as follows:

"1. To approve the National Qualifications Framework of Armenia according to the Annex.”

3) To rewrite the Annex of the Decision in the new edition according to the Annex.

2. This decision shall enter into force on the tenth day following its publication.

Republic of Armenia

Prime Minister H. Abrahamyan

2016 July 7

Yerevan



## DECISION OF THE GOVERNMENT OF THE REPUBLIC OF ARMENIA

March 31, 2011 N 332-N

### ON SETTING OF EDUCATION QUALIFICATION GENERAL LEVEL DESCRIPTORS AND NATIONAL QUALIFICATIONS FRAMEWORK OF THE REPUBLIC OF ARMENIA

Based on Part 1 of Article 2 of the RA Law on *Education*, the RA Prime-Minister Decision #276-A from April 26, 2010,

*The Government of the Republic of Armenia decides to:*

1. Approve the general descriptors of the levels of education qualification and national education qualifications framework of the Republic of Armenia (education qualifications and their appropriate general descriptors) in conformity with Annex #1.
2. To the RA Ministry of Education and Science:
  - 1) To approve the guideline of introducing and launching of the national education qualifications framework of the Republic of Armenia;
  - 2) To submit, before January 31, 2011, to the GOA the schedule of measures deriving from the introducing and launching of the national education qualifications framework, by specifying agencies and organizations ensuring and responsible for the measures, expected financial sources
  - 3) To submit the procedure for accreditation of vocational educational institutions and educational programs for approval before January 31, 2011;
  - 4) To approve qualification descriptors according to specializations (or specialization groups) in compliance with the education qualification general descriptors and education levels and to adapt education standards of professions to them, before December 31, 2010.

This Decision shall come into force following the 10<sup>th</sup> day of its official publication.

Republic of Armenia

Prime Minister T. Sargsyan

2011 April 8

Yerevan

**LEVELS (QUALIFICATIONS) DESCRIPTORS**  
**OF THE NATIONAL QUALIFICATIONS FRAMEWORK FOR HIGHER EDUCATION OF THE REPUBLIC OF ARMENIA**

EDUCATIONAL LEVEL (QUALIFICATION)		1 <sup>ST</sup> (BACHELOR)	2 <sup>ND</sup> (MASTER)	3 <sup>RD</sup> (CANDIDATE OF SCIENCE)
<b>General description (characteristic) of the Qualification</b>		<ul style="list-style-type: none"> <li>The first level degree qualifies individuals who have broad and coherent knowledge and skills in a range of fields to undertake professional work and/or further learning.</li> </ul>	<ul style="list-style-type: none"> <li>The second level degree qualifies individuals who have advanced and specialised knowledge and skills in the given field for professional practice, research and/or further learning.</li> </ul>	<ul style="list-style-type: none"> <li>The third level degree qualifies individuals who have systematic and critical understanding and specialised research skills in one or more complex fields of scholarship or professional practice for advancing and/or creating new knowledge.</li> </ul>
<b>KNOWLEDGE</b>	<b>1. Knowledge and understanding</b>	<ul style="list-style-type: none"> <li>Demonstrates advanced knowledge and understanding of basic and state-of-the-art concepts, theories and methods within the field of professional work or study.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates profound professional knowledge, including on the recent achievements of the field, which applies for study, work and research.</li> <li>Demonstrates deep understanding of theories, advanced concepts and methods of the given specialty and at the interface between different fields.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates advanced knowledge specific to the specialty area and related intersecting fields, which applies in scientific research and professional work.</li> <li>Demonstrates comprehensive and deep understanding of state-of-the-art theories, approaches, new hypotheses and scientific-research methods specific to the specialty area and related intersecting fields.</li> </ul>

<b>SKILLS</b>	<b>2. Applying knowledge and understanding</b>	<ul style="list-style-type: none"> <li>• Can apply acquired knowledge and understanding, basic principles and methods of the field for solving problems during the professional work or study.</li> </ul>	<ul style="list-style-type: none"> <li>• Can apply acquired knowledge and understanding, advanced principles and methods of the specialty area and/or related intersecting fields to solve complex theoretical and practical problems in new and unfamiliar situations, and to implement research and innovative activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Can apply acquired knowledge and understanding, conceptual principles and advanced methods of the field to plan and conduct scientific-research activities and to give innovative solutions to the complex theoretical and practical problems.</li> </ul>
	<b>3. Communication, ICT and numeracy skills</b>	<ul style="list-style-type: none"> <li>• Can communicate and explain information, arguments, ideas, problems and their solutions that are related to the given field to the specialist and non-specialist audiences.</li> <li>• Can apply ICTs to solve problems and intensify work in the specialty area.</li> <li>• Can collect, process, analyse and interpret relevant quantitative and qualitative data within the specialty area to make reasonable judgments.</li> </ul>	<ul style="list-style-type: none"> <li>• Can use professional communication means to communicate clearly and coherently one's conclusions, respective arguments and research results to the broad specialist and non-specialist audiences.</li> <li>• Can apply ICTs thoroughly to solve new complex problems and to support conducting research in the specialty area and/or related intersecting fields.</li> <li>• Can analyse and evaluate quantitative and qualitative data within the specialty area and/or related intersecting fields to draw conclusions and make decisions on the basis of incomplete or limited information.</li> </ul>	<ul style="list-style-type: none"> <li>• Can use advanced principles and methods to communicate and interpret, from multiple perspectives, new and complex theoretical and practical problems and the research results to the scholarly community and wider society.</li> <li>• Can apply ICTs in a proficient way to implement scientific research and create new knowledge.</li> <li>• Can evaluate and transform a wide range of quantitative and qualitative data from different interrelated fields to generate complex ideas and create new knowledge.</li> </ul>
		<ul style="list-style-type: none"> <li>• Can analyse and make judgments applying critical thinking, as well as</li> </ul>	<ul style="list-style-type: none"> <li>• Can investigate problems related to the specialty area and generate</li> </ul>	<ul style="list-style-type: none"> <li>• Can generate new, complex and abstract ideas, offer and/or</li> </ul>

	<p><b>4. Generic cognitive skills (including making judgments)</b></p>	<p>demonstrate creativity to identify and provide different solutions to the problems of the specialty area.</p>	<p>innovative and creative solutions, as well as offer new ideas and concepts that extend knowledge and practice of the field.</p>	<p>present new and original insights on current information and issues based on the evaluation of scientific-research results.</p> <ul style="list-style-type: none"> <li>• Can design and implement original research, theorise the results of the latter, which make contribution to the scientific field and/or professional practice and are published in national and international peer-reviewed journals.</li> </ul>
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<b>COMPETENCE</b>	<b>5. Autonomy and responsibility (including learning skills)</b>	<ul style="list-style-type: none"> <li>• Can undertake full-fledged professional activity, manage professional functions and projects, and make autonomous decisions.</li> <li>• Can manage working team and take on responsibility for the professional activity of its members.</li> <li>• Is able to identify one's educational needs and/or career opportunities to decide on the ways of further study.</li> <li>• Is able to take personal responsibility for the nation and the State, follow up the realization of democratic principles and dissemination of national and human values.</li> </ul>	<ul style="list-style-type: none"> <li>• Can undertake activity in a specialised field of work and/or study requiring new strategic approaches for managing and transforming complex and unpredictable work situations.</li> <li>• Can create and manage professional or research team and take on lead responsibility for the professional advancement of its members.</li> <li>• Is able to evaluate one's demand for continuous study and needs for professional development to continue education in different environments.</li> <li>• Is able to promote the development of civic society and combine national value system with common human values.</li> </ul>	<ul style="list-style-type: none"> <li>• Can initiate and manage complex innovative processes at the forefront of the scientific-research, academic and professional fields by demonstrating scholarly and professional integrity and autonomy.</li> <li>• Can create and lead a scientific-research or professional team and promote the research advancement of its members.</li> <li>• Is able to promote the scientific, technological, social or cultural progress of the society within academic and professional contexts.</li> <li>• Is able to promote the sustainable development of science, the nation and the State by protecting national and common human values.</li> </ul>
	<b>Workload in ECTS credits</b>	180-240	60-120	180