Comparative study report

COMPARING QUALIFICATIONS FOR RELIABLE RECOGNITION

Co-funded by the Erasmus+ Programme of the European Union

The study was conducted by the Academic Information Centre (Latvia) in cooperation with National Centre for Information and Documentation (Bulgaria), Archimedes Foundation (Estonia), UK NARIC (United Kingdom) and National Information Center for Academic Recognition and Mobility (Armenia) from 2018 to 2020.

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This report was prepared with the support of Erasmus+ NARIC project No 595635-EPP-1-2018-1-LV-EPPKA3-NARIC “Comparing qualifications for reliable recognition (QUATREC)” (2018-2020).

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Abbreviations

AIC	Academic Information Centre (Latvia)
ARMENIC	National Information Center for Academic Recognition and Mobility (Armenia)
CAE	Cambridge Certificate in Advanced English
CATS	Credit Accumulation and Transfer Scheme
CPE	Cambridge Certificate of Proficiency in English
DS	Diploma Supplement
ECTS	European Credit Transfer and Accumulation System
EHEA	European Higher Education Area
EKKA	Estonian Quality Agency for Higher and Vocational Education (Estonia)
ENIC	European Network of National Information Centres on academic recognition and mobility
ENQA	European Association for Quality Assurance in Higher Education
EQAR	European Quality Assurance Register for Higher Education
EQF	European Qualifications Framework
EstQF	Estonian Qualifications Framework
FCE	First Certificate in English
HE	higher education
HEI	higher education institution
ICT	information and communication technologies
IELTS	International English Language Testing System
IT	information technologies
LO	learning outcomes
LQF	Latvian Qualifications Framework
NACID	National Centre for Information and Documentation (Bulgaria)
NARIC	National Academic Recognition Information Centres
NQF	National Qualifications Framework
PTE	Pearson Test of English
QF-EHEA	Qualifications Framework of the European Higher Education Area
QUATREC	Comparing qualifications for reliable recognition
TOEFL	Test of English as a Foreign Language
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNESCO/CEPES	UNESCO European Centre for Higher Education
WRL	World Reference Levels

Introduction

International documents regulating the recognition of foreign qualifications, e.g. subsidiary text to the Lisbon Recognition Convention (LRC) "Recommendation on the Use of Qualifications Frameworks in the Recognition of Foreign Qualifications" (2013), Council Recommendation on promoting automatic mutual recognition of higher education and upper secondary education diplomas and the outcomes of learning periods abroad (2018), increasingly emphasise the importance of learning outcomes and qualifications frameworks during the evaluation of credentials. However, more evidence and guidance on practical use of learning outcomes in recognition would be necessary in order to ensure that learning outcomes are considered when evaluating qualifications.

Regarding the emphasis on the role of learning outcomes in recognition, the Erasmus+ NARIC project "Comparing qualifications for reliable recognition" (QUATREC) (January 2018 – February 2020) aims to encourage the use of learning outcomes in credential evaluation for improved recognition in line with existing and emerging qualifications frameworks. Further aims of this comparative study are to promote examples of good practice and provide recommendations for a methodology on how learning outcomes and qualifications frameworks may be used during the recognition of qualifications; thus, fostering easier and simplified recognition procedures leading towards automatic recognition in future.

In order to achieve this aim, three qualifications and their learning outcomes awarded in the project partner countries – Armenia, Bulgaria, Estonia, Latvia and the United Kingdom – were selected for horizontal comparison to investigate whether the learning outcomes of the same level qualifications have no substantial differences and the qualifications are comparable. Samples of the following qualifications were analysed from each partner country: a Bachelor's degree in Physics, a Master's degree in Psychology and a Master's degree in Business Administration.

This report outlines study conducted on horizontal comparison of learning outcomes focusing on the succeeding topics:

- Education systems and National Qualifications Frameworks in the partner countries;
- Role of learning outcomes in the education system and in the recognition of foreign qualifications;
- Recognition procedures in the partner countries;
- Methodology of the horizontal comparison, i.e. methods and tools used to analyse the learning outcomes of the selected qualifications;
- Horizontal comparison of three selected qualifications;
- Recommendations for a more effective use of NQFs and learning outcomes in recognition process.

Since the report includes various national contexts and experiences, the concepts and terms used in this report are interpreted in accordance with the terminology of the LRC and its subsidiary texts.

The QUATREC project partners are the ENIC/NARIC offices from Latvia (Academic Information Centre – project coordinator), Bulgaria (National Centre for Information and Documentation, NACID), Estonia (Archimedes Foundation), and the United Kingdom (UK NARIC) and Armenian ENIC office (National Information Center for Academic Recognition and Mobility, ARMENIC). This report was prepared by the experts from the partner organisations, and reviewed by the project Steering Group: Vanya Grashkina, NACID (Bulgaria), Janne Pukk, Ministry of Education and Research (Estonia), Anita Vahere-Abrāmune, Ministry of Education and Science (Latvia), Cloud Bai-Yun, UK NARIC (United Kingdom).

All the partner countries have joined the Bologna Process, and are Parties to the LRC. In the course of implementing the Bologna Process, all the partner countries have developed NQFs compatible with the EQF and QF-EHEA, which provide essential information on qualifications undergoing recognition.

The report may serve as a source of reference for ENIC/NARIC offices, credential evaluators, higher education institutions (HEIs), students, and policy makers to raise awareness of learning outcomes and NQFs in recognition. Thus, the QUATREC project promotes a common understanding of the use of the learning outcomes and qualifications frameworks in recognition, improves fair recognition of qualifications, as well as raises awareness of prerequisites for using learning outcomes and qualifications frameworks in the recognition of qualifications.

1. EDUCATION SYSTEMS AND NATIONAL QUALIFICATIONS FRAMEWORKS IN THE PARTNER COUNTRIES

1. Education systems and National Qualifications Frameworks in the partner countries

The results of the comparative study indicate that no substantial differences may be observed in the education systems and National Qualifications Frameworks (NQF) in all five partner countries. See Annexes 1, 2 and 3 about the education systems and NQFs in the partner countries. Higher education in Armenia, Bulgaria, Estonia, Latvia, and the United Kingdom (partner countries) is organised mainly in the structure of three cycles (EQF levels 6-8) as defined by the Bologna Process. In addition, in Latvia and the United Kingdom short cycle (EQF level 5) higher education programmes are provided.

The workload of short cycle (EQF level 5) studies in Latvia varies from 120 to 180 ECTS credits leading to a Diploma of first level professional higher education. Studies are more focused on the acquisition of professional skills needed in labour market. In the United Kingdom, short cycle studies range from 60 to 120 ECTS credits depending on the qualification (since the responsibility for education is devolved in the United Kingdom, England, Wales, Scotland and Northern Ireland have different qualifications and different qualifications frameworks).

The workload of first cycle (EQF level 6) studies in the partner countries varies from 180 to 240 ECTS credits; except, in Estonia the workload of a study programme in Midwifery is worth 270 ECTS credits. The first cycle is Bachelor level studies. Specific qualifications of first cycle awarded in the partner countries are outlined in Annex 2. Holders of first cycle qualification have access to the second cycle programme in any field of study, and HEIs may set up additional admission requirements to the applicants. However, in Bulgaria, the holders of Degree of "Professional Bachelor in…" (180 ECTS credits) have direct access only to the same field of master study programmes, while the holders of Bachelor's degrees (240 ECTS credits) have no restrictions as regards access to master level studies.

The workload of second cycle (EQF level 7) studies in the partner countries varies from 60 to 120 ECTS credits. The titles of qualifications awarded are rather varied and are listed in Annex 2. To obtain a Master's level qualification, in Bulgaria and Latvia, total workload of studies in first and second cycles should be no less than 300 ECTS credits (5 years of full-time studies); in the United Kingdom, workload of integrated Master's degrees typically is 240 ECTS credits. In Estonia, with the amendments to the Higher Education Act[1] in 2019, the requirement of five years studies in total to obtain a Master's degree will be withdrawn starting from 2019/2020 academic year. Graduates of the second cycle have access rights to doctoral level studies. However, in the United Kingdom access rights to doctoral level studies are not regulated by law.

Additionally, in all partner countries, long cycle study programmes are provided in specific fields such as medicine, dentistry, veterinary medicine, pharmacy etc. These programmes lead to EQF 7 level qualifications with direct access rights to doctoral studies, except for in the United Kingdom where direct access rights do not exist in legislation and admission is at the discretion of the autonomous HEIs. The workload of long cycle study programmes varies from 300 to 360 ECTS credits.

The third cycle (EQF level 8) qualifications are awarded on the basis of original research. Although the nominal length of doctoral studies is three to four years, workload varies by country. In Latvia and Estonia, the workload is from 180 to 240 ECTS credits; in Armenia – 180 ECTS credits (three years studies full-time). In Bulgaria and in Estonia (since September 2019), no credits are awarded for doctoral studies; while in the United Kingdom, the majority of Doctoral degrees do not confer ECTS credits.

[1] Higher Education Act (*Kõrgharidusseadus*), RT I, 19.03.2019, 12.

Table 1. Profile orientation of HE study programmes in the partner countries

Cycle	ARM	BG	EE	LV	UK
Bachelor	A and P	A and P	A and P	A and P	A and P
Master	A and P	A and P	B	A and P	A and P
Doctor	A and P	A	A	A and P	A and P

Notes: P – professionally oriented HE programmes, A – academically oriented HE programmes, B – binary HE programmes

In all partner countries, the HE system includes both academically and professionally oriented higher education programmes. In Latvia, academic higher education programmes focus more on developing student's individual research skills whereas professional higher education programmes foster in-depth practice oriented knowledge and skills in a particular sector. Since 2019, a new qualification has been introduced in Latvia – professional Doctor's diploma in arts – thus, academic and professional division of study programmes refers also to EQF level 8. Placement of academically and professionally oriented HE programmes is summarised in Table 1.

In terms of the assessment of students' achievements, different systems are used in every country. In Armenia, HEIs use different scales because they are quite autonomous in terms of grading systems. In Bulgaria a 6-point grading scheme exists where 6 (excellent) is the highest and 1 (fail) is the lowest mark (lowest positive grade is 3). In Estonia, a 5-point grading scale is used where 5 or A (excellent) is the highest and 1 or E (sufficient) is the lowest grade (lowest positive mark is 1 or E). In Latvia, a 10-point grading scale is used where 10 (with distinction) is the highest mark and 1 (unsatisfactory) – the lowest mark (lowest positive mark is 4). In the United Kingdom, the grading scales vary from cycle to cycle. The grading systems in the partner countries are presented in the table below.

Table 2. Grading scales in the partner countries

Country	Grading scheme
Armenia	HEIs are quite autonomous in terms of grading system and most of them use different scales: • 100 percentage scale • scale of 1-20 (1-7 unsatisfactory, 8-12 satisfactory, 13-17 good, 18-20 excellent) • grade point average 1-4 scale (1-2 unsatisfactory, 3 satisfactory, 4 good)
Bulgaria	6-point grading scale (6 – excellent, 5 – very good, 4 – good, 3 – fair, 2-1 – fail), lowest pass grade – 3 (fair)
Estonia	5-point grading scale, highest grade – 5 (or A) – excellent; 4 (or B) – very good; 3 (or C) – good; 2 (or D) – satisfactory; 1 (or E) – sufficient
Latvia	10-point grading scale (10 – with distinction, 9 – excellent, 8 – very good, 7 – good, 6 – almost good, 5 – satisfactory, 4 – almost satisfactory, 3-1 – unsatisfactory), highest grade – 10, lowest – 1, lowest pass grade – 4
United Kingdom	Grading scales vary between the different cycles: • Bachelor's degrees are graded out of 100, with grades of 40% and above constituting a Pass • Third class honours 40%-49% – Pass, 50-59% – Lower Second Class Honours, 60-69% – Upper Second Class Honours, 70-100% – First Class Honours • At Master's level, the grading system used varies by HEI. Typically, a percentage-based system is used in conjunction with a degree class: 40-49% – Borderline Pass/Fail, 50-59% – Pass, 60-69% – Merit, 70%+ – Distinction. However, these grade boundaries can vary between institutions • Doctorates are awarded a Pass or Fail

All the partner countries have developed their National Qualifications Frameworks (NQF), and most countries, except Armenia[2], have referenced their NQF's to the European Qualifications Framework (EQF). Latvia and the United Kingdom (except Scotland) have eight level NQFs. Scotland (United Kingdom) has the Scottish Credit and Qualifications Framework (SCQF), which consists of 12 levels. Higher education qualifications are located either on EQF levels 6-8 (Armenia, Bulgaria and Estonia) or levels EQF 5-8 levels (Latvia and the United Kingdom).

[2] Armenia has no obligation to reference the NQF to the EQF as non-European Union country.

Table 3. Brief overview of NQFs in the partner countries[3]

Country	Established, referenced to EQF	Scope of NQF	Number of levels	Placement of HE qualifications	Level descriptors
Armenia	Est. 2011	Comprehensive NQF including all level qualifications gained through various pathways	8	EQF 6-8 levels NQF 6-8 levels	knowledge – 1) knowledge and understanding; 2) applying knowledge and understanding skills – 3) communication, ICT and numeracy skills; 4) generic cognitive skills (including making judgements) competence – 5) autonomy and responsibility (including learning skills
Bulgaria	Est. 2012, 2013	Comprehensive NQF including all levels and types of qualification from formal education and training.	8 and a preparatory level	NQF/EQF 6-8 levels	knowledge skills competences (personal and professional)
Estonia	Est. 2010, 2011, 2016 update	Comprehensive NQF including all levels and types of qualification from formal education and training and from the system of occupational qualifications.	8	NQF/EQF 6-8 levels	knowledge skills scope of responsibility and autonomy
Latvia	Est. 2010, 2011, 2019 update	Comprehensive NQF including all levels and types of qualification from formal education.	8	NQF/EQF 5-8 levels	knowledge skills competences
UK - England and Northern Ireland	Est. 2008, 2010 Joined UK referencing report, 2019 update	Regulated qualifications framework (RQF) covering all regulated academic and vocational qualifications and a higher education framework (FHEQ).	8 including entry levels	NQF/EQF 5-8 levels	Level descriptors of the RQF: knowledge and understanding skills
UK - Scotland	Est. 2001, 2010 Joined UK referencing report and 2018 update	Comprehensive credit and qualifications framework (SCQF) including all level and types of qualification.	12	EQF 5-8 levels NQF 8-12 levels	knowledge and understanding practice: applied knowledge, skills and understanding generic cognitive skills communication numeracy and ICT skills autonomy, accountability and working with others

[3] Adapted from: Cedefop (May 2019). Overview of national qualifications framework developments in Europe.

Country	Established, referenced to EQF	Scope of NQF	Number of levels	Placement of HE qualifications	Level descriptors
UK - Wales	Est. 2008, 2010 Joined UK referencing report, 2019 update	Credit and qualifications framework of Wales (CQFW) includes all level and types of qualification, consisting of three pillars: regulated qualifications, HE qualifications and lifelong learning pillar	8 including entry levels	NQF/EQF 5-8 levels	Level descriptors of regulated qualifications: knowledge and understanding skills of lifelong learning pillar: knowledge and understanding application and action autonomy and accountability

Level descriptors are based on learning outcomes and in most cases based on the dimensions of knowledge, skills and competences. For more detailed information about level descriptors of NQFs see Annex 3.

2. ROLE OF LEARNING OUTCOMES IN EDUCATION SYSTEM AND RECOGNITION OF FOREIGN QUALIFICATIONS

2. Role of learning outcomes in education system and recognition of foreign qualifications

The Yerevan Communiqué (2015) stresses that enhancing the quality and relevance of learning and teaching is the main mission of the European Higher Education Area (EHEA)[4]. The Bologna Process is focused on effectively supporting students in acquiring knowledge, skills and competences that best meet their self-development goals and social needs. Therefore, learning outcomes are one of the tools of the Bologna Process for improving mobility, transparency and recognition in the EHEA (in addition to NQFs, ECTS, Diploma Supplement (DS) and quality assurance). In general learning outcomes may be considered as a basis for a common understanding when comparing, assessing and recognising qualifications offered in different education and qualification systems.

In terms of the EQF and QF-EHEA, which are metaframeworks covering entire EHEA, learning outcomes serve as the foundation to determine the complexity, scope and context of qualification levels. These metaframeworks are used as reference points for NQFs, where level descriptors based on learning outcomes serve as comprehensive guidelines for both qualification providers and credential evaluators. The results of this study indicate that in all partner countries learning outcomes are used in recognition process (see Table 4).

The horizontal comparison exercise (see Annexes 4 and 7) carried out by Bulgaria, Estonia, Latvia, the United Kingdom and Armenia in terms of learning outcomes focused on the following aspects:

- visibility of learning outcomes – information about sources where the provided learning outcomes are published or are available;
- formulation of learning outcomes – information about who defines, approves and owns the provided learning outcomes;
- whether learning outcomes are subject to quality assurance – positive or negative reply;
- terminology of learning outcomes – concepts or categories used when formulating the provided learning outcomes.

During the comparison of the selected three qualifications (Bachelor's degree in Physics, Master's degree in Psychology and Master's degree in Business Administration) many similarities were observed.

Ensuring visibility of learning outcomes is the responsibility of qualification provider. One of the most significant obstacles regarding horizontal comparison is identifying sources of learning outcomes of qualifications since in every partner country the system of publishing learning outcomes is slightly different. For the three qualifications analysed in this study learning outcomes could be mostly found on the websites of HEIs (i.e. providers), which are all publicly available. In Estonia, the generic learning outcomes are included in Diploma Supplements; learning outcomes are also published on database of study programmes and link to the database is included in the Diploma Supplement. In Latvia, learning outcomes are published in the study field self-assessment report and in the Latvian Qualifications Database[5]. In the United Kingdom, the subject benchmark statements are available on the website of Quality Assurance Agency[6], as well. Subject benchmark statements, which are written by subject specialists and coordinated by the Quality Assurance Agency, define the standards graduates should achieve in specific subject areas.

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[4] European Commission, EACEA, Eurydice (2018). The European Higher Education Area in 2018: Bologna Process Implementation Report. Luxembourg: Publications Office of the European Union. https://eacea.ec.europa.eu/national-policies/eurydice/sites/eurydice/files/bologna_internet_0.pdf, p. 57.

[5] Latvian Qualifications Database, https://www.latvianqualifications.lv

[6] The website of Quality Assurance Agency, https://www.qaa.ac.uk

When analysing who formulates the learning outcomes in all the partner countries, the HEI providing the particular qualification is responsible for the formulation of learning outcomes. In the United Kingdom, Quality Assurance Agency defines subject benchmark statements in addition to the learning outcomes formulated by the HEIs.

In all five partner countries the learning outcomes are subject to quality assurance and play a crucial role in quality assurance.

As regards terminology of learning outcomes, in all the partner countries the structure of knowledge, skills and competences is used when formulating learning outcomes. The definitions of knowledge, skills and competences vary by country and, for instance, in some partner countries the definition for knowledge is shorter and simpler and in other countries the definition is longer and more complex, e.g. in Latvia knowledge is described as a set of cognitive items acquired during learning, work and life experience, while in Bulgaria knowledge refers only to theoretical and factual knowledge, independent knowledge interpretation and critical perception. In Bulgaria skills are described as the mastered methods and means in the field of study, whereas in Armenia, the dimension of skills refers to skills as all the generic cognitive skills, ICT and numerical skills, applied knowledge and understanding communication. The collected data of horizontal comparison are outlined in Annex 7. The results of analysis of the learning outcomes of the selected qualifications are described in the Section 5.2 of this report.

Role of learning outcomes in recognition

Learning outcomes have an important role not only in education process, but also in recognition procedures. The results of the analysis on the use of learning outcomes in recognition in the partner countries are summarised in the table below. All the partner countries use learning outcomes in recognition, as well as all ENIC or/and NARIC offices use generic learning outcomes, but not specific learning outcomes. Generic learning outcomes are referred to being transversal, soft or social knowledge, skills or competences whereas specific learning outcomes are more related to the particular field or subject of qualification. The most significant differences may be observed in terms of cases when learning outcomes are used and sources of learning outcomes differ by the partner country. Thus, the conclusion may be drawn that more attention should be paid to clear identification of sources for learning outcomes that may be used in recognition.

Table 4. Role of learning outcomes in recognition procedures

	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Are learning outcomes used in recognition? (yes/no)	Yes	Yes	Yes	Yes	Yes
If yes: which learning outcomes are used? Generic (yes/no) Specific (yes/no)	Generic – Y (by Armenian NARIC) Specific – Y (by HEIs)	Generic – Y Specific – N	Generic – Y (by Estonian ENIC/NARIC) Specific – Y (by HEIs)	Generic – Y Specific – N	Generic – Y Specific – N
If yes: In what cases learning outcomes are used?	To compare qualifications, programmes	All recognition purposes, including for access to further studies, labour market, etc.	In admission to next cycle of HE, HEIs use learning outcomes in assessment	HEIs use learning outcomes in assessment for admission	To compare qualifications to the UK standards
If yes: What is the source of learning outcomes used for recognition purposes?	NQFs	DS, HEI website and programme description	DS, if such information is available, or HEI website/course catalogue, etc.	DS	NQF, DS, official information from HEI

Furthermore, since learning outcomes are used in all five countries in recognition process, the content, formulation and structure of learning outcomes are highly significant.

Challenges in using learning outcomes in recognition

The use of learning outcomes in recognition procedures is a rather complex exercise; therefore, during the study major challenges were identified in the partner countries. In terms of focus, the challenges may be divided into two parts: 1) challenges regarding recognition procedures with an indirect impact on learning outcomes; and 2) challenges referring to the issues related to learning outcomes.

Challenges in terms of recognition procedures with indirect impact to learning outcomes:

- Credential evaluators have insufficient knowledge about how to use and compare learning outcomes.
- The methodology for using the learning outcomes of qualification in recognition has not been elaborated.
- Credential evaluators often cannot use the learning outcomes of qualifications since the information about the learning outcomes is not provided in the education documents, or qualification does not have Diploma Supplement; therefore, the information about the learning outcomes of qualification has to be searched in other sources.

Challenges in terms of learning outcomes:

- Poorly articulated learning outcomes are subject to interpretation, meaning the skills, knowledge and competences are not always clearly defined in the learning outcomes. Furthermore, not always the categories of knowledge, skills and competences are used to describe learning outcomes.
- Many HEIs still do not use learning outcomes for designing of study programmes, and no descriptions of learning outcomes are available.

- When carrying out recognition, in practice HEIs compare subjects and hours of two education programmes.
- Getting reliable information about learning outcomes is difficult.
- Learning outcomes are not formulated in the same language, different terminology is applied to describe learning outcomes and their categories which hinders the comparison of them.

This is not a complete list of challenges, but the provided examples may serve as basis for work on recommendations how learning outcomes could be used in recognition more efficiently.

3. RECOGNITION PROCEDURES IN THE PARTNER COUNTRIES

3. Recognition procedures in the partner countries

The main international legal instrument for academic recognition is the Convention on the Recognition of Qualifications Concerning Higher Education in the European Region (the Lisbon Recognition Convention) adopted on April 11, 1997 in Lisbon. Lisbon Recognition Convention covers the academic recognition of access qualifications to higher education, higher education qualifications and study periods.

The ENIC/NARIC offices and Armenian ENIC office in all partner countries function in accordance with the principles of the Lisbon Recognition Convention and its subsidiary texts. The main tasks, work and activities of the Bulgarian, Estonian, Latvian, United Kingdom's ENIC/NARIC offices and Armenian ENIC office correspond to the guidelines expressed in the Joint ENIC/NARIC Charter of Activities and Services. However, some minor differences occur in the main tasks regarding national contexts and associated legislation (see Table 5). The Estonian, Latvian, United Kingdom's ENIC/NARIC offices and Armenian ENIC office provide assessment of qualifications giving access to higher education. The Bulgarian ENIC/NARIC office does not provide legally binding recognition decisions of this type of secondary school leaving qualifications, but on demand may provide non-binding recognition statements about them. Another difference is that the Bulgarian, Estonian ENIC/NARIC offices and Armenian ENIC office assess periods of study upon request, what is not a case in Latvia and the United Kingdom. All ENIC/NARIC offices in the partner countries, except the Armenian ENIC office, have the status of designated assistance centre for professional recognition. Since no legislative basis for regulated professions has been established in Armenia, the Armenian ENIC office does not have an official status of competent body, but they provide advice regarding qualifications and the professional rights of their holders. The status of statements issued by the ENIC/NARIC offices and Armenian ENIC office is mostly non-binding, except in Bulgaria where the ENIC/NARIC office issues both legally binding decisions as competent authority and non-binding recognition statements as recommendation to HEIs and other competent authorities. In Latvia, the statements of the ENIC/NARIC office is required by law for HEIs to admit students with foreign qualifications, but the final decision about recognition is taken by HEIs.

Table 5. Tasks of the ENIC/NARIC offices[7]

	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Providing information about education systems (Y/N)	Y	Y	Y	Y	Y
Providing information about HE access qualifications (Y/N)	Y	Y	Y	Y	Y
Providing information about HE qualifications (Y/N)	Y	Y	Y	Y	Y
Assessing HE access qualifications (Y/N)	Y	Y	Y	Y	Y
Assessing periods of studies (Y/N)	Y	Y	Y	N	N
Assessing higher education qualifications (except doctoral degrees) (Y/N)	Y	Y	Y	Y	Y
Assessing doctoral degrees (Y/N)	Y	Y	Y	Y	Y

[7] Adapted from: Ramiņa, B., Kinta, G., Prikule, Dz., Vaht, G., Valeikienė, A., Sutkutė, Kr., Žilinskaitė, R. (2015). Automatic Recognition between Estonia, Latvia and Lithuania. Riga: Academic Information Centre, Archimedes Foundation, Centre for Quality Assessment in Higher Education. http://www.aic.lv/portal/content/files/AURBELL_report_EN.pdf.

	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Providing information about regulated professions (Y/N)	Y	Y	Y	Y	Y
Designed assistance centre for professional recognition (Y/N)	Unofficially, yes	Y	Y	Y	Y
National ENIC/ NARIC (title of institution)	National Information Center for Academic Recognition and Mobility http:// www.armenic.am	National Centre for Information and Documentation http://nacid.bg	Archimedes Foundation http:// archimedes.ee	Academic Information Centre http://aic.lv	UK NARIC https:// www.naric.org.uk/ naric/
Status of the document issued by the ENIC/ NARIC offices (legally binding/non-binding/ both)	Non-binding, recommendation	Both	Non-binding recommendation	Non-binding recommendation	Non-binding recommendation
Additional tasks as regards recognition	Responsible for the EHEA related issues Regular trainings for HEIs	Assistance and training of credential evaluators of HEIs and other recognition authorities, IMI delegated coordinator PQ, IMI competent authority for certifying Bulgarian qualifications in non-regulated professions, including EPC		Assistance centre for regulated and non-regulated professions Latvian NCP for EQF Quality Agency for Higher Education	Assistance centre for regulated and non-regulated professions, including EPC National contact point for ECVET

All five countries use similar a methodology and a practise in the recognition of qualifications, based upon the Council of Europe and UNESCO Revised Recommendation on Criteria and Procedures for the Assessment of Foreign Qualifications (2010) adopted by the Lisbon Recognition Convention Committee. Common recognition criteria and procedures are also stipulated by the European Area for Recognition Manual (EAR Manual, 2012). Criteria for assessment and recognition used in Bulgaria, Estonia, Latvia, United Kingdom and Armenia are summarised in Table 6. In section A of the table all the partner countries have responded positively in all aspects. Thus, all the ENIC/NARIC offices and the Armenian ENIC office are responsible for determining the type and competence of the awarding institution, recognition of the awarding institution in the home country and accreditation or any other quality assurance of the awarding institution. However, in Armenia the accreditation of study programmes is a voluntary process at the moment.

In the recognition of qualifications, the Estonian ENIC/NARIC office does not consider particular type of graduation requirements (e.g. whether these are final examinations, practical work or thesis), as more important is the outcome and formal right for further study. Since the requirements of graduation are usually very general, during the evaluation of qualifications, the Armenian ENIC considers them only when additional requirements of graduation are formulated.

Table 6. Use of criteria for assessment and recognition[8]

	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
A. Status of institution					
Type and competence of the awarding institution (Y/N)	Y	Y	Y	Y	Y
Recognition of the awarding institution in home country (Y/N)	Y	Y	Y	Y	Y
Accreditation or any other quality assurance of the awarding institution (Y/N)	Y	Y	Y	Y	Y
B. Assessment of individual qualification					
General access requirement to the programme (previous education) (Y/N)	Y	Y	Y	Y	Y
Accreditation or any other quality assurance of the programme (if exists/if applicable) (Y/N)	Yes, if it exists	Y	Y	Y	Y
Nominal duration and/ or workload of the programme (Y/N)	Y	Y	Y	Y	Y
Graduation requirements (Y/N)	Yes, if relevant	Y	N	Y	Y
Profile[9] (Y/N) (academically/professionally/binary oriented)	Y	Y	Y	Y	Y
Level of the programme in the national education system (qualifications framework) (Y/N)	Y	Y	Y	Y	Y
Function of the qualification (formal rights the qualification gives to the holder for further studies or work) (Y/N)	Y	Y	Y	Y	Y
Students' performance (grades) (Y/N)	N	N	Y	Y	N
Other	In case of improperly documented qualifications, other instruments are used: interview, questionnaire	Recognition of academic degree along with professional qualification if presented in the awarded final degree certificate/ diploma			

[8] Adapted from: Ramiņa, B., Kinta, G., Prikule, Dz., Vaht, G., Valeikienė, A., Sutkutė, Kr., Žilinskaitė, R. (2015). Automatic Recognition between Estonia, Latvia and Lithuania. Riga: Academic Information Centre, Archimedes Foundation, Centre for Quality Assessment in Higher Education. http://www.aic.lv/portal/content/files/AURBELL_report_EN.pdf

[9] Nuffic (2016).European Recognition Manual for Higher Education Institutions: Practical guidelines for credential evaluators and admissions officers to provide fair and flexible recognition of foreign degrees and studies abroad. Second edition. http://eurorecognition.eu/Manual/EAR%20HEI.pdf

4. METHODOLOGY OF THE HORIZONTAL COMPARISON

4. Methodology of the horizontal comparison

The purpose of the horizontal comparison was to explore three HE qualifications in order to clarify whether these qualifications are similar and comparable in all the partner countries. The results of the study are expected to provide a foundation for developing recommendations on a methodology for using learning outcomes in the recognition of foreign qualifications. The timeline of the study is described in Annex 5.

First, two HE qualifications – one Bachelor level and one Master level qualification – for the in-depth analysis had to be selected according to the QUATREC project proposal. In order to ensure objective comparison of qualifications, the following criteria for selecting qualifications for the in-depth study were formulated:

1. Study field or sector – this criterion involved two aspects for discussion, i.e. 1) whether both qualifications on first and second cycle should be from the same field or different fields; and
   2) if qualifications are selected from different fields, one qualification could represent the field of science, technology, engineering or mathematics, other – soft or social sciences.
2. Non-regulated professions – selected qualifications should be non-regulated in order to avoid risk of previously harmonised learning outcomes due to international standards and EU directives.
3. Popular study programmes (or fields of study) attracting many foreign students – if the selected qualification is awarded to many foreign students and provided by several HEIs, the results of comparison would gain greater interest among credential evaluators.
4. Awarded in all the partner countries – this criterion is important in order to ensure comprehensive comparison of the selected qualifications.
5. Availability of learning outcomes for the selected qualifications – learning outcomes are the main part of the analysis; therefore, their availability is crucial.

With the reference to these criteria, the project team agreed to conduct the in-depth analysis of **three HE qualifications** representing different sectors:

- Bachelor's degree in Physics;
- Master's degree in Psychology;
- Master's degree in Business Administration.

As a result of the discussion in the QUATREC project kick-off meeting in August 2018, the decision was made to analyse three qualifications in order to have a wider perspective on the comparison of learning outcomes. The respective qualifications were chosen from various fields to ensure larger coverage of study fields. A Bachelor's degree was selected from the field of science, technology, engineering and mathematics, while Master's degrees – from social sciences. All three qualifications are provided in all the partner countries; in addition, Master's degree in Business Administration may be considered rather popular in terms of HE export.

In order to conduct horizontal comparison, a common template for describing qualifications (fiche) was elaborated. The content of the template was based on the fiche designed by the EQF Advisory Group pilot horizontal comparison working group coordinated by Educational Research Institute (Poland) in 2016-2017[10]. Academic Information Centre as Latvian National Coordination Point for EQF was also involved in the pilot working group, and could apply experience from the previous horizontal comparison.

[10] The pilot project on the horizontal comparison of levelled qualifications (2016). Draft of the final report for discussion at the AG38 meeting. Warsaw: Instytut Badań Edukacyjnych. https://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=28730&no=11

During the QUATREC project kick-off meeting in August 2018, the project team adopted the fiche for the purposes of this study. The fiche includes the following main categories:

- Title of qualification;
- Level of NQF/EQF;
- Information about studies leading to the qualification;
- Formal rights;
- Information about awarding institution;
- Information about Diploma Supplement;
- Information about quality assurance;
- Information about learning outcomes;
- Learning outcomes as defined by qualification authority.

These aspects for qualification comparison where chosen regarding the objectives of the project; therefore, in the analysis NQFs and learning outcomes were explored in particular detail. This fiche was drafted taking into account the criteria used in the assessment and recognition of foreign qualifications. Thus, comparing to the tool designed by the EQF Advisory Group pilot horizontal comparison working group, the QUATREC fiche is more focused on the needs of recognition of qualifications.

According to the partner countries, information for the fiches was gathered from various sources. Primarily websites of HEIs were explored, as well as HEIs were contacted for them to provide requested data, especially the learning outcomes for the qualifications in question. Additionally, in Latvia, self-assessment reports of particular study fields were reviewed to collect information.

The project partners completed separate fiches for each qualification, and thereafter the AIC as the coordinator of the project compiled comparison tables for each qualification. These tables were reviewed and discussed by partners both electronically and during the project meeting in Bulgaria in April 2019.

In parallel to collecting information on qualifications, the project partners elaborated the methodology for analysing the results of the fiches. The analysis of qualifications regarding the structure of the fiche was split into two parts:

- Analysis of the contextual information of the qualification;
- Analysis of the learning outcomes.

The results of the fiche analysis are outlined in Chapter 5 of this report.

Analysis of contextual information

In order to highlight the results of the study focusing on learning outcomes, other aspects outlined in the fiche – contextual information – were explored separately. Furthermore, in most cases the contextual information was repetitive reflecting particular characteristics of national education and qualification systems. Although learning outcomes are the main focus of this study, contextual information may not be neglected as during recognition of the qualification several criteria are considered.

When contextual information from the partner countries on the selected qualifications was integrated in the comparative tables, similarities and differences were explored among the countries and the respective qualifications. The analysis was done in order to better understand

whether the qualifications could be described as being similar and comparable in terms of recognition.

Analysis of learning outcomes

According to the structure of the fiche, information about learning outcomes may be divided into two parts: 1) data about learning outcomes; and 2) expected learning outcomes of particular qualification. When the project partners had completed fiches for the three qualifications, data about the learning outcomes similar to contextual information was compiled in comparative tables.

Analysis of learning outcomes was carried out into two distinctive directions:

1. Quantitative analysis;
2. Qualitative analysis.

In the quantitative analysis the exact number of learning outcomes was investigated and compared between the partner countries for every qualification. Thus, a clearer view was obtained regarding the number of statements of learning outcomes, as well as their length and extent of detail.

Furthermore, the quantitative analysis was focused on the frequency of words in the learning outcomes. This exercise was carried out with the help of a free software AntConc toolkit developed by Dr Anthony Laurence[11]. AntConc is a freeware, multiplatform tool for corpus linguistic research, for comparing and analysing texts. AntConc comprises in total seven tools of which for the purposes of this study two tools were used – word list tool and concordance tool. The word list tool counts all the words in the selected text and presents them in an ordered list. The concordance tool – used for the qualitative analysis of this study – shows search results in the context format displaying how the words and phrases are commonly used in the corpus of text. Using the AntConc toolkit allowed making conclusions about how concepts are commonly used in the learning outcomes, identifying the common expressions and frequency of the most used words and compare them with the keyword list.

The qualitative analysis of the learning outcomes imparted several steps and use of various tools, which mostly relied on the content analysis. The first, the learning outcomes were broken down into two categories: 1) generic, i.e. referring to transversal, soft or social knowledge, skills or competences; and 2) specific, i.e. those learning outcomes that could be related to the particular field or subject of qualifications. This approach allowed drawing conclusions in which countries learning outcomes focus more on specific knowledge, skills and competences relevant to the future occupation and in which countries the learning outcomes are described in more general way.

The second, the learning outcomes were grouped by topic, which was considered to be one of the most important parts of the study. The grouping was done by drafting a list of keywords used in learning outcomes statements. The keywords were selected with a reference to the most frequently used dimensions of learning outcomes (knowledge, skills and competences) and concepts associated with them. The other source was Council Recommendation of 22 May 2018 on key competences for lifelong learning[12] (2018) providing the list of eight key competences. Thereafter, the keywords were used to find similar learning outcomes for each qualification in all partner countries, and then all the learning outcomes that were similar were grouped by a specific topic. Arranging learning outcomes by topic allowed structuring information to provide a basis for the in-depth analysis of the content of qualification.

[11] Laurence, A. (2019). Website. https://www.laurenceanthony.net.

[12] Council of Europe (2018). Council Recommendation of 22 May 2018 on key competences for lifelong learning. 2018/C 189/01. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H0604(01)&from=EN

The potential groups of the learning outcomes were further analysed using the software AntConc toolkit. In this part of the study commonly used phrases were analysed to determine similarities and differences in the phrasing and content of the learning outcomes. The use of a tool assisted in increasing the objectivity of the results of analysis.

The third, additional content analysis of the learning outcomes was done with the online World Reference Level (WRL) tool[13] developed by UNESCO since 2014, which provides possibility to analyse the learning outcomes of qualifications according to 11 elements of capabilities. The WRL tool creates the profiles of the sets of learning outcomes using newly developed definitions of competences, capacities and levels. The tool was piloted during this study by the qualification authorities in the South Africa, Sweden, and Norway; therefore, the final version of the tool later may be different. The 11 elements of WRL are based on the factors commonly found in the level descriptors of qualifications frameworks, and other structures which define the levels of qualifications, credentials and competences. The WRL elements are descriptions of different kinds of individual capability covered by the learning outcomes.

Each WRL element is arranged in four broad hierarchical reference levels A, B, C and D, which represent commonly recognised cycles or gradations in education and in generic employment or career pathways. Each level is divided into a lower and higher stage of progression, e.g. A1 and A2, with D2 being the highest and A1 being the lowest stage. As a result of the profiling, each element is given a score in a four grade scale – higher the score, greater the importance of the element in the learning outcomes – or the element is identified as being not fully relevant.

The WRL elements are organised in three clusters: accountabilities, capabilities and contingencies. Accountabilities refer to carrying out and managing activities, capabilities – using skills, knowledge and know-how, and contingencies impart abilities responding to contextual factors. These clusters, which overlap to some extent, represent different perspectives from which the learning outcomes can be analysed. When using WRL tool, the elements may be freely selected depending on the qualification and purpose of analysis. For the Bachelor's degree in Physics, the Master's degrees in Psychology and Business Administration all 11 WRL elements were chosen to provide as large perspective as possible.

The increasing complexity of learning outcomes associated by the WRL elements is briefly described below:

I. Accountabilities – carrying out and managing activities
    1. Scope and nature of activities – from simple, highly structured activities, which do not require knowledge or specific skills, to complex and advanced technical activities requiring various expertise and being highly specialised, strategic or critical.
    2. Scope and nature of responsibilities – from carrying out activities under direct instruction with very limited responsibilities to assuming full responsibility for planning, implementing, evaluating and strategic improvement across fields or organisations.
    3. Role in working with others – from working with others under instruction to leading groups, being a leader in terms of influencing an idea, collaborating on strategic and critical activities.
    4. Role in monitoring performance and learning to improve quality – from a situation where an individual should follow their own performance using particular standards to the situation where the individual has research oriented and strategic responsibilities for improving quality across groups or organisations.

II. Capacities – using skills, knowledge and know-how

[13] UNESCO (2019). World Reference Level website. https://worldreferencelevels.org

5. Scope and nature of skills and procedures – from practical/technical or simple and routine skills and procedures to cognitive and creative or complex and highly specialised skills and procedures.
6. Scope and nature of skills in communication – from using basic skills and procedures to access and record simple practical information and report it to a limited audience to critically analysing and evaluating the significance of advanced ideas and presenting them accordingly to diverse audiences.
7. Scope and nature of skills for accessing and using data – from using simple numeracy skills, procedures and programmes in order to access or record raw data to selecting or specifying advanced processes and programmes to generate and evaluate complex, technical and specialised data.
8. Scope and nature of knowledge and know-how – from general knowledge that are not related to the specific field of activity to the most advanced theoretical knowledge and theory-based know-how.

III. Contingencies – responding to contextual factors

9. The nature of contexts of activity – from stable and highly structured contexts to unsettled and problematic contexts.
10. Role in addressing problems and issues – from dealing with familiar problems arising in standard activities to developing new methods in order to deal with the most challenging and abstract issues.
11. Role in addressing issues relating to values – from situations when an individual does not encounter unexpected ethical, social or environmental to the situations where the individual has responsibility for addressing emerging issues that are not covered by existing policies, procedures or codes.

The project team is aware of potential subjectivity as regards content analysis of learning outcomes; however, such exercise is necessary to highlight the complexity of using the learning outcomes of qualifications in the recognition procedures. The results of the analysis indicate trends how the learning outcomes for the selected qualifications are formulated in the partner countries and reveal their strengths and weaknesses.

5. HORIZONTAL COMPARISON OF THREE SELECTED QUALIFICATIONS

5. Horizontal comparison of three selected qualifications

This chapter outlines the main analysis of the horizontal comparison of the three selected HE qualifications: Bachelor's degree in Physics, Master's degree in Psychology and Master's degree in Business Administration. The analysis of the horizontal comparison is arranged into two parts regarding the structure of the fiche (see Annex 4): 1) contextual information; and 2) learning outcomes.

5.1. Analysis of contextual information

The analysis of contextual information conducted for the three HE qualifications indicates that despite some differences between the partner countries, the qualifications have more similarities. Thus, the three qualifications in the partner countries are comparable and the information provided by the partners in the country fiches is very useful for understanding the essence of these qualifications and can be used for the purposes of the recognition of the respective qualifications.

The contextual information of three selected HE qualifications was explored in terms of:

- **similarities** among the eleven contextual information categories;
- **differences** among the eleven contextual information categories.

The following three tables present the main similarities and differences for Bachelor's degree in Physics, Master's degree in Psychology and Master's degree in Business Administration in the partner countries (see Annex 6). These qualifications are real examples of qualifications provided by a HEI in the project partner countries.

Table 7. Comparative analysis of the context information: Bachelor's degree in Physics

	Similarities	Differences
Level of NQF/EQF	All partner countries – the same level of EQF (level 6)	ARM, BG, EE, LV – NQF level 6 UK – NQF level 6 in England, Wales and Northern Ireland, NQF levels 9 or 10 in Scotland
Access requirements	All partner countries – secondary school qualification with access rights to HE	LV and UK – more detailed requirements, e.g. specific grades or points in certain study subjects UK – IELTS exam score 6.5 overall (minimum 6.0 in all elements) for non-native speakers of English
Admission requirements	ARM, EE and LV – national language exam results ARM, BG, EE and LV – exam in physics or mathematics (UK not specified) ARM, BG, EE and LV – a specific grade in the state exams and average school grades (UK not specified)	UK – in some cases an interview and an admission test
Workload (amount of ECTS credits)	ARM, EE, LV, UK – 180 ECTS credits	BG – 240 ECTS credits
Mode of study	ARM, LV – only full-time studies	BG, EE and UK – full-time and part-time studies

	Similarities	Differences
Profile	All partner countries – academically oriented profile	ARM and EE – both academically and professionally oriented profile
Access to further studies	All partner countries – access to the second cycle programmes	UK – access to the third cycle programmes is discretion of HEIs
Professional rights	ARM, BG, EE and LV – the qualification leads to a non-regulated profession	UK – the qualification leads to a chartered physicist, which is a regulated profession
Requirements for graduation	ARM, BG, EE and LV – final thesis	ARM, BG, EE and LV – final thesis is worth different amount of ECTS credits UK – every study year different requirements
Awarding of qualification		
Awarding body	All partner countries – HEI	
Diploma Supplement is awarded (Yes/No)	BG, EE, LV and ARM – Y BG, EE, LV and ARM – DS in national language and in English	UK – N (some HEIs issue the DS but it is not mandatory)

According to the results of contextual information analysis of the Master's degree in Psychology, the only categories being the same for all the partner countries were the level of EQF (level 7), the access to further studies (access to the third cycle (doctoral) studies) and the awarding body (particular HEI). Although a part of the categories were similar for all the countries – the access requirements (EQF level 6 bachelor level qualification), the admission requirements (the first cycle degree in psychology), the mode of study (full-time studies), the requirements for graduation (graduation thesis), – in each case the qualification samples comprised additional information. Comparing to the Bachelor's degree in Physics, more similarities in the contextual information could be observed, yet in four categories differences were identified between the qualification samples.

Table 8. Comparative analysis of the context information: Master's degree in Psychology

	Similarities	Differences
Level of NQF/EQF	All partner countries – the same level of EQF (level 7)	ARM, BG, EE, LV – NQF level 7 UK – NQF level 7 in England, Wales and Northern Ireland, NQF level 11 in Scotland
Access requirements	All partner countries – EQF level 6 bachelor level qualification	BG – 240 ECTS credits or 4 years of prior studies
Admission requirements	All partner countries – the first cycle degree in psychology BG, LV, UK (in some cases) – an essay or a personal statement BG, EE, LV – average grade from bachelor level studies	EE – interview UK – English language requirements for non-native English speakers
Workload (amount of ECTS credits)	ARM, BG and EE – 2 year full-time studies or 120 ECTS credits	LV – 3 year studies or 180 ECTS credits; and 2 year studies or 120 ECTS credits UK – 75 ECTS credits

	Similarities	Differences
Mode of study	All partner countries – full-time studies	ARM, EE – also part-time studies
Profile	ARM, BG and EE – both academically and professionally oriented profile	LV – only professionally oriented profile UK – no profile
Access to further studies	All partner countries – access to the third cycle (doctoral) studies	
Professional rights	ARM, BG and EE – the qualification leads to a non-regulated profession	LV and UK – the qualification leads to a regulated profession
Requirements for graduation	All partner countries – graduation thesis	LV, BG – state exams UK – a research project
Awarding of qualification		
Awarding body	All partner countries – HEI	
Diploma supplement is awarded (Yes/No)	ARM, BG, EE and LV – Y ARM, BG, EE and LV – DS in national language and in English	UK – N (some HEIs issue the DS, but it is not mandatory)

The results of the contextual information analysis for the Master's degree in Business Administration seem to be the most homogeneous comparing to the other qualification samples. Similar information was provided in five categories by all the partner countries. The full fit of information was stated in such categories as the level of EQF (level 7), the access requirements (EQF level 6 bachelor level qualification), the access to further studies (access to the third cycle (doctoral) studies) and the awarding body (particular HEI). The category "the mode of study (full-time studies)" was noted as similar with some variations in the information provided. Thus, a conclusion may be drawn that the examples of this qualification regarding the contextual information could be easier comparable for the recognition.

Table 9. Comparative analysis of the context information: Master's degree in Business Administration

	Similarities	Differences
Level of NQF/EQF	All partner countries – the same level of EQF (level 7)	ARM, BG, EE, LV – NQF level 7 UK – NQF level 7 in England, Wales and Northern Ireland, NQF level 11 in Scotland
Access requirements	All partner countries – a bachelor level qualification	
Admission requirements	ARM and EE – at least 40 ECTS credits bachelor level courses in the field of economics ARM, EE, LV, UK – work experience starting from 2 years in LV and 3 years in the field in ARM, EE, UK	BG, LV – entry test, average grades, grade for thesis LV – CV and English language test UK – English language test for non-native English speakers
Workload (amount of ECTS credits)	ARM, EE, LV – 120 ECTS credits	BG – 60 ECTS credits or 90 ECTS credits UK – 90 ECTS credits
Mode of study	All partner countries – full-time studies	ARM and EE – both part- and full-time studies
Profile	ARM, BG and EE – both academically and professionally oriented profile	LV – only professionally oriented profile UK – no profile

Access to further studies	All partner countries – access to the third cycle (doctoral) studies	
Professional rights	ARM, BG, EE and LV – the qualification leads to a non-regulated profession	UK – the qualification leads to a regulated profession
Requirements for graduation	BG, EE, LV – master thesis and/or exam	ARM – thesis UK – not specified, only certain amount of credits
Awarding of qualification		
Awarding body	All partner countries – HEI	
Diploma supplement is awarded (Yes/No)	ARM, BG, EE and LV – Y ARM, BG, EE and LV – DS in national language and in English	UK – N (some HEIs issue the DS, but it is not mandatory)

To summarise the analysis of the contextual information, tendencies could be observed as regards the categories, which always or in the most cases, include similar information between the partner countries, i.e. the EQF level of the qualification and the awarding body. In general, the access requirements make a reference to the qualification one EQF level below, but some additional requirements may be stated. Similarly, the qualifications ensure the right to access to the next cycle, with one exception in the case of the British Bachelor's degree in Physics. Therefore, rapid assumptions should not be made that the qualification examples in terms of the contextual information are fully similar, yet further discussion should be conducted about the aspects which are critical for a reliable recognition of qualifications and whether the indicated variations in the most of categories are substantial differences.

5.2. Learning outcome analysis

The analysis of the learning outcomes included both quantitative and qualitative approach.

Regarding the structure of the samples of particular qualifications from the partner countries, in the most cases a list of learning outcomes statements were observed without any differentiation of the dimensions used for the national level descriptors. As exceptions may be listed the sample of the Master's degree in Psychology from Latvia, where the learning outcomes are divided in three dimensions: knowledge and understanding; skills (ability to apply knowledge, communication, general skills); and competences, and the British sample of the Bachelor's degree in Physics, where the learning outcomes are grouped in three dimensions: knowledge and understanding; practical skills; and transferable skills. Interesting example of the organising learning outcomes is the Master's degree in Business Administration from the United Kingdom – the learning outcomes are differentiated as knowledge and understanding (A) and subject specific intellectual and research skills (B). The content of the learning outcomes from both groups is very similar, comprising the same concepts and ideas, with only some slight differences in wording. This repetition of the learning outcomes has an influence on the results of further quantitative and qualitative analysis.

For five of the samples of qualifications, the learning outcomes have an introductory sentence which indicates particular dimensions of learning outcomes. In the case of the Bachelor's degree in Physics and the Master's degree in Psychology from Armenia, the dimensions of knowledge and skills are mentioned. The introductory sentence for all the three Bulgarian qualifications impart reference to "knowledge, skills and competencies". The learning outcomes of the three qualification samples do not have any introduction or explanatory sentence. For instance, the Estonian qualification samples have a sentence "the student who has passed the programme" for two qualifications and for one qualification – no introduction. When comparing the samples of the qualifications from the same partner country, the most homogenous approach may be observed with the qualifications from Bulgaria (almost the same introduction). Although the structure of learning outcomes may seem to be irrelevant in the recognition of qualifications, the results of

analysing the learning outcomes may be impacted. The form and content of introductory statement (or its absence) determines how the learning outcomes are formulated and organised.

Quantitative analysis

To start the quantitative analysis of learning outcomes, the number of learning outcomes statements, and the number of generic and specific learning outcomes for each qualification was explored. After the analysis of the first qualification, i.e. Bachelor's degree in Physics, the following conclusions were made: in general, only small differences could be observed between the numbers of learning outcomes statements by country. Estonia had the least amount of learning outcomes for this particular qualification (seven), whereas the United Kingdom had the highest amount of learning outcomes (12). Respectively Armenia has eight, Bulgaria – nine, Latvia – 10 learning outcomes statements. The numbers of the learning outcomes are summarised in the table below.

Regarding the Master's degree in Psychology, quantitative differences were more evident: the United Kingdom has significant number of learning outcomes (21) comparing to other partner countries. The next highest number was in Latvia – 18, then Armenia – 10, Bulgaria – seven, and Estonia – six. Both in the United Kingdom and Latvia, this qualification leads to a regulated profession, which could explain the greater number of learning outcomes.

In terms of the Master's degree in Business Administration, a closer correlation was seen in number of learning outcomes: from five learning outcomes in Latvia to 13 in Armenia. However, although Latvia has the least number of learning outcomes, the depth and length of each learning outcome statement was significant, i.e. learning outcomes statements are more complex and longer comparing to other countries.

The results of analysing generic and specific learning outcomes for the Bachelor's degree in Physics indicate that Bulgaria and Armenia focus more on specific learning outcomes than Estonia, Latvia and the United Kingdom. Out of nine learning outcomes statements, the Bulgarian qualification example has eight specific learning outcomes, whilst in the Armenian example – out of eight learning outcomes, seven are specific. The example of Estonian qualification has almost even division, whereas the Latvian qualification sample has two more generic learning outcomes than specific, and the qualification from the United Kingdom has eight generic learning outcomes and four specific learning outcomes.

For the Master's degree in Psychology the same trends may be observed, i.e. the Armenian qualification has one of the greatest differences between the number of generic and specific learning outcomes (nine learning outcomes of 10 were specific learning outcomes). The learning outcomes for the Armenian qualification seem to be more focused on describing the professional field of particular qualification. The British qualification sample has 15 generic learning outcomes within a total of 21 learning outcomes statements.

An interesting trend was observed when examining the Master's degree in Business Administration – the qualifications from all the partner countries have more specific learning outcomes than generic learning outcomes. The qualifications from Bulgaria, Latvia and the United Kingdom do not have any generic learning outcomes; whilst the example of Estonian qualification has one generic learning outcome statement and the Armenian qualification sample – four generic learning outcomes. This fact could be explained by the particular field of the qualification.

Table 10. Number of learning outcomes statements by qualification

	Type of learning outcomes	ARM	BG	EE	LV	UK
Bachelor's degree in Physics	**Generic**	1	1	4	6	8
	Specific	7	8	3	4	4
	Total	8	9	7	10	12
Master's degree in Psychology	**Generic**	1	3	2	7	15
	Specific	9	4	4	11	6
	Total	10	7	6	18	21
Master's degree in Business Administration	**Generic**	4	0	1	0	0
	Specific	9	6	7	5	10
	Total	13	6	8	5	10

In general, the results of numerical analysis point out that on average the qualifications of the United Kingdom have the greatest number of the learning outcomes (on average 14 statements), the Latvian and Armenian qualifications have similar average number of the learning outcomes (11 learning outcomes and 10 learning outcomes accordingly). The samples of qualifications from Bulgaria and Estonia on average have the smallest number of learning outcomes – seven learning outcomes in both cases. Comparing the three selected qualifications, the samples of the Master's degree in Psychology have the largest number of learning outcomes (on average 12 statements), other two qualifications have similar number of learning outcomes – the Bachelor's degree in Physics on average has nine learning outcomes and the Master's degree in Business Administration on average is described with eight learning outcomes.

The following part of quantitative analysis was performed with a free software AntConc toolkit[14]. When processing of the text, the tool provided the list of the most frequently used words in the learning outcomes of each of the qualifications. The table below reflects 24 of the most often mentioned words in the descriptions of learning outcomes, less used words were not included. The word lists have been ordered starting with most often mentioned words, excluding articles (the, a), auxiliary verbs (to be, to have), prepositions (in, of, for, with), connectives (and, but), and leaving nouns, verbs and adjectives.

For the Bachelor's degree in Physics words such as physics (29), use/using (17), knowledge (13), methods (10), data (7) and understanding (7) were among the most frequently included in the descriptions of the learning outcomes. The results of frequency analysis lead to the conclusion that the Bachelor's degree in Physics in all the partner countries is more oriented towards the use of knowledge in physics, and using various methods to solve the problems related to physics. The least often used words denote carrying out analysis and communication skills; although the term "to analyse" could be linked to "analysis", which would increase its frequency.

[14] AntConc homepage, https://www.laurenceanthony.net/software/antconc

Table 11. Frequency of words used in the learning outcomes

Bachelor's degree in Physics		Master's degree in Psychology		Master's degree in Business Administration	
Frequency	**Word**	**Frequency**	**Word**	**Frequency**	**Word**
29	physics	30	research	37	management
17	use/using	29	able	29	business
13	knowledge	22	knowledge	11	able/can
10	methods	20	psychology	8	problems
9	problems	19	professional	7	issues
7	data	17	use/using	7	marketing
7	understanding	15	graduates	7	research
6	able	14	skills	6	economics
6	information	13	work	6	effective
6	scientific	11	methods	6	knowledge
5	demonstrate	9	apply	5	decisions
5	measurements	9	psychological	5	environment
5	results	9	results	5	including
4	ability	9	scientific	5	innovative
4	analysis	8	specific	5	know
4	classical	7	critically	5	making
4	experimental	7	present	5	skills
4	fundamental	7	understand	5	tools
4	mechanics	6	appropriate	4	approaches
4	principles	6	assessment	4	different
4	students	6	conduct	4	finance
3	carry	6	development	4	innovation
3	analyse	6	evaluate	4	solve
3	communicate	5	analyse	3	apply

For the qualification of the Master's degree in Psychology the most frequently used words in the learning outcomes are research (30), able (29), knowledge (22), psychology (20), professional (19), use/using (17). The frequency of these words indicates that the qualification in all the partner countries is rather research oriented, and the holder of qualification should be able to use their knowledge in the professional work in the field of psychology. However, less important in terms of the learning outcomes are such words as appropriate (6), assessment (6), conduct (6), development (6), evaluate (6) and analyse (5) that are related to cognitive operations. Yet words "assessment" and "evaluate" represent similar notions, which increases their frequency. Interestingly the learning outcomes rarely impart the word "problem", as problem solving may be considered as one of professional duties.

The learning outcomes of the Master's degree in Business Administration the most often mentioned words were management (37), business (29), able/can (11), and problems (8) (followed

by issues (7)). Regarding the results of word frequency analysis, the sample of this qualification is largely oriented towards professional activities, which involve managing business and being able to manage (but not solve) problems and issues at work. Meanwhile, the most frequent words do not include word “use”, and term “apply” is mentioned only three times. Other less used words are approaches (4), different (4), finance (4), innovation (4) and solve (4).

Comparing the frequency lists between all the three qualifications, word “knowledge” is often mentioned in the learning outcomes of the Bachelor’s degree in Physics and Master’s degree in Psychology, while in the case of the Master’s degree in Business Administration, this term is rather rarely used. The words related to the profession or field (physics, psychology, management or business) are frequent in the examples of the Bachelor’s degree in Physics and Master’s degree in Business Administration, but the Master’s degree in Psychology seems to be more “research” oriented.

Qualitative analysis

The qualitative analysis of the learning outcome relied on the content analysis using various tools and methods:

1. Grouping of the learning outcomes on basis of the keywords;
2. Text analysis with the software AntConc toolkit[15];
3. UNESCO World Reference Levels (WRL) online tool[16] for the profiling of learning outcomes.

The grouping of the learning outcomes by the keyword revealed several correlations between the learning outcome statements of the qualifications. The learning outcome statements representing the same topic (or keyword) were rather similar in terms of concept and idea. Thus, conclusion may be drawn that the learning outcomes of the qualifications were designed using similar references as regards knowledge, skills and competences necessary for the qualifications. Meanwhile, some national or institutional characteristics may be observed as some qualifications comprise unique learning outcomes. Part of the learning outcomes included several topics; therefore, they were classified in more than one group. Some examples of qualifications have a rather balanced division of the learning outcomes between the topics, while others are more focused on particular areas. However, the total number of the learning outcomes per qualifications has to be considered, too. In fact, the grouping of learning outcomes by topic provided more evidence whether the qualifications are comparable between the partner countries in terms of the learning outcomes. Additionally, keyword analysis allowed structuring information to strengthen a basis for more thorough content analysis of the learning outcomes using the software AntConc toolkit.

Grouping of the learning outcomes

The following most common keywords or topics for all the three selected qualification were distinguished:

- knowledge;
- research;
- problem solving;
- data analysis;
- communication;
- self-education and professional development;
- professional activity.

[15] AntConc homepage, https://www.laurenceanthony.net/software/antconc.

[16] World Reference Level website (2019). https://worldreferencelevels.org.

The keyword analysis of the Bachelor's degree in Physics (see Annex 8) led to the division of learning outcomes in nine topics and some unique learning outcomes which did not belong to any of the topics. The learning outcomes focused on such topics as knowledge, research and innovation, mathematics, measurement methods, IT skills, data analysis, problem solving, physics terminology and presentation skills, communication and management. All the qualifications have learning outcomes in relation to research (and innovation) skills and data analysis. The most of qualifications (except one in each case) foresees learning outcomes about knowledge, mathematics, measurement methods, IT skills, data analysis, and problem solving. The sample of qualification from Armenia shows rather knowledge oriented approach to formulating the learning outcomes. The Bulgarian example of the qualification is the only one which imparts learning outcomes related to the teaching activities. The British example of the qualification has the greatest number of learning outcomes (three) that were not classified in any of the groups.

The learning outcomes of the Master's degree in Psychology were grouped according to six topics and also some unique statements were noted (see Annex 8). The learning outcomes cover such dimensions as knowledge, analysis, communication and social skills, research, professional work, self-education and professional development. The learning outcomes from all the partner countries impart only the topic of knowledge; other frequent topics (represented in all the qualifications except one in each case) are analysis, communication and social skills, research, and professional work. Regarding the fact that the average number of the learning outcomes for this qualification is rather high, each of the topics is well-represented. However, the qualification sample from Armenia has more emphasis on the professional work. The example of qualification from Bulgaria is oriented towards research, but aspects of communication are excluded. The Estonian example of qualification has focus on knowledge, but no research related learning outcomes. The Latvian example of the qualification is more focused on the communication and social skills, and professional work; and the British example of the qualification is evidently research oriented, but the concepts related to the professional work are not mentioned.

The keyword analysis of the Master's degree in Business Administration revealed seven topics of learning outcomes; the learning outcomes are rather diverse as each topic (with some exceptions) may include small number of the statements (see Annex 8). The learning outcomes of this qualification comprises the following topics: knowledge, research, problem solving, communication and presentation skills, data analysis, professional work (management, planning), self- education and professional development. The most frequent topic (included in all the partner countries) are the research skills and professional work (management, planning). The samples of the qualifications from Armenia and the United Kingdom are clearly oriented towards professional work. The Estonian qualification is more focused on the aspects of knowledge, while the British sample does not have any statement about this topic. The qualification samples from Bulgaria and Latvia do not have evident emphasis on either of the topics.

Since many learning outcomes could be grouped following these topics, a conclusion may be drawn that, regardless some (national) specific features, more similar trends than differences in the formulation of the learning outcomes may be observed. Thus, the authors of the learning outcomes may have referred to similar sources or standards when designing their qualifications.

The content analysis with the AntConc toolkit

Further text analysis of the learning outcomes statements was performed with the AntConc toolkit[17] in order to gain more thorough evidence as regards the content of the learning outcomes and their formulation.

[17] AntConc homepage, https://www.laurenceanthony.net/software/antconc.

The tables in Annex 9 outline how the words and phrases are commonly used in corpus of texts in the specific learning outcomes of the qualifications analysed in this report. The learning outcomes were grouped by knowledge, skills or competences they represent. The learning outcomes were shortened to reflect the idea they comprise more clearly. The summaries of the analysis are reflected in the tables below.

In the case of the Bachelor's degree in Physics (see table below), only the Armenian qualification does not have any examples of the learning outcomes concerning the ability to use something (e.g. to use equipment or software, methods, scientific texts etc.) and research, while the British qualification includes four learning outcomes in each of the both fields. Concerning the concepts of knowledge, problem solving, analysis and critical thinking in the description of the learning outcomes, the qualification sample of Bulgaria does not have any learning outcomes in the mentioned fields. The most of qualification samples seem to be focused on various fields without any specific emphasis, as only exceptions could be mentioned the qualification of the United Kingdom, which has a slight focus on the ability to use and research, and the Latvian qualification sample, with a slight emphasis on the analysis and critical thinking. Regarding the results of the analysis, the learning outcomes of the Bachelor's degree in Physics can be compared between all the partner countries, but the qualification cannot be automatically recognised between the partner countries considering the content of the learning outcomes.

Table 12. The summary of the content analysis of the learning outcomes: Bachelor's degree in Physics (frequency of concepts)

Short version of learning outcomes	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Ability to use	0	2	3	3	4
Knowledge	1	0	2	1	1
Problem solving	1	0	2	2	2
Analysis and critical thinking	1	0	1	4	3
Communication	0	0	2	2	2
Ability to develop	1	2	0	0	0
Research	0	2	1	1	4
Professional work	0	1	0	0	0

In the case of the Master's degree in Psychology (see table below), a similar trend may be observed – no correlations exist as regards the content of the learning outcomes for all the partner countries. For instance, in the case of the British qualification, no learning outcomes describe and involve some sort of assessment and evaluation skills, analysis skills, applying knowledge and professional work and development. The qualification sample from Armenia also does not comprise the learning outcomes focusing on the skills in applying gained knowledge from the studies in real life, the professional work and development compared to the qualifications from other countries. The Estonian qualification has no learning outcomes related to research skills. Regarding the results of analysis of the learning outcomes, some qualification samples seem to be focused on various fields without any specific emphasis, e.g. the Armenian and partly the Estonian qualifications. The examples from Bulgaria, Latvia and the United Kingdom have focus on the research, and in addition the Latvian qualification – on applying knowledge. To summarise, the content analysis of learning outcomes indicates that the learning outcomes comprise rather varied concepts and ideas, which may hinder recognising the qualifications automatically between all the partner countries.

Table 13. The summary of the content analysis of the learning outcomes: Master's degree in Psychology (frequency of concepts)

Short version of learning outcomes	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Assessment and evaluation	1	1	1	2	0
Argumentation, discussion and presentation	1	1	1	2	1
Analysis	2	2	1	2	0
Apply knowledge	0	1	3	5	0
Research	2	5	0	4	8
Professional work and development	0	2	2	3	0

When analysing the Master's degree in Business Administration (see Annex 9), the learning outcomes were divided in 11 fields of skills: ability to apply, ability to integrate, ability to use, analysis, argumentation (discussions and presentation), decision making, knowledge and understanding, problem solving, professional development, business skills and research skills. The analysis led to a result that not a single case was observed when all the partner countries have similar learning outcomes for at least one field. Only in the fields of decision making and research, the correlations between four partner countries were noted. The learning outcomes of the qualifications are rather diverse covering too many fields to be easily compared. Thus, the possibility to agree on the automatic recognition of the Master's degree in Business Administration regarding the content of learning outcomes is rather insignificant.

Table 14. The summary of content analysis of the learning outcomes: Master's degree in Business Administration (frequency of concepts)

Short version of learning outcomes	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Ability to apply	0	0	0	1	1
Ability to integrate	0	0	0	1	1
Ability to use	1	1	0	0	0
Analysis	1	0	1	0	1
Argumentation, discussion and presentation	2	0	0	1	1
Decision making	1	1	0	1	1
Knowledge and understanding	2	0	3	1	0
Problem solving	2	1	0	0	1
Professional development	0	0	1	2	0
Business skills	0	0	0	0	2
Research	2	0	1	1	1

The profiling of the learning outcomes with the UNESCO WRL tool

The learning outcomes of the three selected qualifications were profiled according to the online World Reference Levels (WRL) tool[18] developed by the UNESCO. The tool was still piloted during this study. The tool provides opportunity to profile the learning outcomes regarding 11 elements of capabilities grouped in three clusters (accountabilities, capabilities and contingencies). Each WRL element consists of four broad hierarchical reference levels A, B, C and D, which each includes a lower and higher stage of progression (e.g. A1 and A2), with D2 being the highest and A1 being the lowest stage. When analysing the learning outcomes of the Bachelor's degree in Physics and the Master's degrees in Psychology and Business Administration, all 11 WRL elements were selected to provide wider perspective on these qualifications.

Regarding the profile of the Bachelor's degree in Physics, some correlations among all the elements and levels could be observed between partner countries – usually at least two countries have a similar reference level and for some elements a maximum of three similar levels for the respective element. For an instance, responsibilities, knowledge and know-how and context elements have the same level in three partner countries and for the rest of the elements at least two partner countries have the same stage of progression. The last element of values was not relevant for the examples of all the partner countries; in addition, the elements of working with others and context are rather poorly developed for the qualifications of all the partner countries. The Latvian example of the qualification has the highest amount of D1 stages – six; while the qualification sample from Armenia has the greatest number of B1 – four. The most common level for all the partner countries is C, with the stages of C1 and C2. The summary of the qualification profile is outlined in the table below.

[18] World Reference Level website (2019). https://worldreferencelevels.org.

Table 15. Profiling of the learning outcomes: Bachelor's degree in Physics

Element	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Activities	N/R	C1	C2	D1	C2
Responsibilities	C1	B2	C1	C2	C1
Working with others	N/R	N/R	B2	B2	C1
Quality	B1	C2	A2	D1	B1
Skills and procedures	B1	D1	B2	D1	C1
Communication	B1	C1	C2	D1	D1
Data	C2	B2	C1	D1	C2
Knowledge and know-how	C2	C2	C2	D1	C1
Context	B1	B1	B1	C1	N/R
Problems and issues	C2	N/R	C1	C2	B2
Values	N/R	N/R	N/R	N/R	N/R

Notes: A1, A2, B1, B2, C1, C2, D1, D2 – stages of the WRL elements (A1 – the lowest, D2 – the highest), N/R – the element is not relevant.

The results of the profiling the Master's degree in Psychology indicate that the majority of all the elements belong to the D1 stage. Few of the exceptions include the element of working with others, which was evaluated as B2 for the descriptions of learning outcomes of the qualification from Armenia, and as not fully relevant in case of the qualifications from Bulgaria and Estonia. As showed in the table below on the stage of D1, the descriptions of the learning outcomes of the Armenian qualification sample has – six elements, the Bulgarian qualification – eight elements, the Estonian qualification – 10 elements, the Latvian qualification – six elements, and the British qualification – nine elements. Thus, the conclusion may be drawn that the in terms of the complexity of the learning outcomes according to the 11 WRL elements, the descriptions of learning outcomes for this qualification are rather similar in all the partner countries. Although the grouping of the learning outcomes revealed that the qualification, except the case of the Latvian qualification, does not include the topic of solving problems, the analysis with WRL tool led to the stage of D1 for all the partner countries.

Table 16. Profiling of the learning outcomes: Master's degree in Psychology

Element	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Activities	D1	D1	D1	D1	D1
Responsibilities	C2	C2	D1	D1	D2
Working with others	B2	N/R	N/R	C2	D1
Quality	C1	C2	D1	D2	D1
Skills and procedures	C1	D1	D1	D1	D1
Communication	D1	D1	D1	D2	D1
Data	D1	D1	D1	D1	D1
Knowledge and know-how	D1	D1	D1	D1	D1
Context	D1	D1	D1	D2	C2
Problems and issues	D1	D1	D1	D1	D1
Values	C2	D1	D1	D2	D1

Notes: A1, A2, B1, B2, C1, C2, D1, D2 – stages of the WRL elements (A1 – the lowest, D2 – the highest), N/R – the element is not relevant.

Similarly, in the profile of the learning outcomes of the Master's degree in Business Administration, almost all the elements for the partner countries are either at the stage of D1 or D2 (see table below). The most frequently noted stage was D1; the qualification samples of Armenia and the United Kingdom each have eight elements of the stage D1; the Bulgarian and Latvian qualifications – seven elements each; the Estonian qualification – four elements. Only in the case of the Estonian qualification, a larger amount of the stages C2 (six) were scored compared to the other partners. As less pronounced element comparing to others is the working with others, which was marked "not relevant" in case of three countries and with C1 and C2. More significant elements, graded with D1 or D2 for all the qualifications of the partner countries, are quality, skills and procedures, data, as well as problems and issues.

Table 17. Profiling of the learning outcomes: Master's degree in Business Administration

Element	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Activities	D1	D1	C2	D1	D1
Responsibilities	D1	D1	C2	C2	C1
Working with others	C1	C2	N/R	N/R	N/R
Quality	D1	D1	D1	D1	D1
Skills and procedures	D1	D2	D1	D1	D1
Communication	D2	D1	C2	D1	D1
Data	D1	D1	D1	D1	D1
Knowledge and know-how	D1	C2	C2	C2	D1
Context	D1	D1	C2	C2	C2
Problems and issues	D1	D1	D1	D1	D1
Values	D2	D2	C2	D1	D1

Notes: A1, A2, B1, B2, C1, C2, D1, D2 – stages of the WRL elements (A1 – the lowest, D2 – the highest), N/R – the element is not relevant.

After the profiling of all the three qualifications, the conclusions were made that for the Bachelor's degree in Physics clearly lower reference levels on average were indicated comparing to the both Master's degree qualifications. Thus, the higher level of education, the higher reference levels accordingly for the each WRL element, since the descriptions of the learning outcomes typically for Master's degree are more complex and specific.

To summarise, the content and the specific wording used to describe the learning outcomes could be argued to have tendency to be more similar than different.

After the quantitative and qualitative analysis of the learning outcomes, the following conclusions could be drawn:

- Each research method reveals a different perspective of the learning outcomes and depending on the objective of the study, particular method should be selected.
- The quantitative analysis methods and the AntConc toolkit to some extent could be used for the same purposes in regards to the exact length and the amount of the learning outcomes. The tool allows determining whether the learning outcomes of qualifications are comparable between the partner countries in terms of the length and the amount of learning outcomes.
- The grouping of the learning outcomes and UNESCO WRL tool could be more suitable for analysing the content of the learning outcomes, because in both methods the focus is on the exact content of the learning outcomes.

Using all these research methods allowed the project team making assumptions whether the learning outcomes of all the three qualifications are comparable or not in terms of the content of learning outcomes.

As regards the content of the specific learning outcomes of the qualification analysed in this study report, the learning outcomes are rather similar than they are different. However, their differences should be explored more to comprehend whether they are substantial.

6. CONCLUSIONS

6. Conclusions

The comparative study explored issues related to recognition, learning outcomes and NQFs both at system level and level of particular qualifications in Armenia, Bulgaria, Estonia, Latvia and the United Kingdom. In the previous experience, the Latvian and Estonian ENIC/NARIC offices had conducted comparison of HE qualifications and qualifications giving access to HE at systemic level, i.e. whether a Bachelor is a Bachelor. Yet the aims of QUATREC project are more challenging – to analyse the essence of particular samples of qualifications, the content of their learning outcomes in order to provide some evidence that a Bachelor's degree in Physics is a Bachelor's degree in Physics.

The results of the comparative study indicate that no substantial differences may be observed in the education systems – based on the three cycle structure – and National Qualifications Frameworks (NQF) between all the partner countries. However, some variations as regards workload, understanding of profile, and assessment systems could be observed in the partner countries. With some exceptions, holders of Bachelor and Master's degrees have direct access to the next cycle. The NQFs in the partner countries are comprehensive consisting of eight levels (except Scotland in the United Kingdom) and level descriptors are based on learning outcomes.

One of the most significant issues in terms of horizontal comparison is the identification of sources of learning outcomes of qualifications. Regarding the samples of qualifications analysed in this study, the expected learning outcomes were published on the websites of HEIs (i.e. providers), since the learning outcomes of the qualifications are formulated by the providers.

The analysis of recognition procedures in the partner countries revealed that the Bulgarian, Estonian, Latvian, United Kingdom's ENIC/NARIC offices and Armenian ENIC office perform all functions in accordance with the principles of the Lisbon Recognition Convention and its subsidiary texts. The main tasks, work and activities of the ENIC/NARIC offices and Armenian ENIC office correspond to the guidelines expressed in the Joint ENIC/NARIC Charter of Activities and Services. In terms of recognition of qualifications, all the partner countries use similar methodology and practice based upon the Council of Europe and UNESCO Revised Recommendation on Criteria and Procedures for the Assessment of Foreign Qualifications (2010) adopted by Lisbon Recognition Convention Committee. Regarding the use of criteria for assessment and recognition, very few differences were stated between the partner countries in terms of considering the graduation requirements and students' performance (grades) during the evaluation of individual qualifications.

The results of the analysis on the use of learning outcomes in recognition indicate that all ENIC or/and NARIC offices use generic learning outcomes, but not specific learning outcomes. However, the issue of how the learning outcomes of qualifications are used in recognition should be explored in more detail. Therefore, several challenges were identified as regards the use of learning outcomes in recognition, e.g., poorly articulated learning outcomes are subject to interpretation, variety in terminology and phrasing (including the issues of translation of learning outcomes), as well as lack of trustful sources of learning outcomes. The methods used and selected to conduct the comparative study were highly effective in order to achieve the goal of understanding whether the samples of the Bachelor's degree in Physics, the Master's degree in Psychology and the Master's degree in Business Administration are comparable between all the partner countries in terms of the contextual information and the learning outcomes of these qualifications. The adopted fiche was recognised to be appropriate in compiling all the necessary information about the samples of the qualifications since the fiche covered a wide range of fields.

The contextual information in the fiche comprised 11 categories providing additional data about the qualification and education system. The analysis of the contextual information of three sample HE qualifications – Bachelor's degree in Physics, Master's degree in Psychology and

Master's degree in Business Administration – awarded in the project partner countries (Armenia, Bulgaria, Estonia, Latvia and the United Kingdom) led to the following conclusions:

- Regarding the Bachelor's degree in Physics, the level of EQF (level 6) and the awarding body (particular HEI) were the only categories that were the same for all the partner countries.
- In case of the Master's degree in Psychology, the only categories being the same for all the partner countries were the level of EQF (level 7), the access to further studies (access to the third cycle (doctoral) studies) and the awarding body (particular HEI). Comparing to the Bachelor's degree in Physics, more similarities in the contextual information could be observed.
- The samples of the Master's degree in Business Administration seem to be the most homogeneous comparing to the other qualification examples, i.e. similar information was provided in five categories of the contextual information.
- Tendencies could be observed as regards the categories, which always or in the most cases, include similar information between the partner countries, i.e. the EQF level of the qualification and the awarding body.
- The qualification examples in terms of the contextual information are not fully similar; however, the differences might not be considered to be substantial.

When analysing the information about the learning outcomes of the selected samples of HE qualifications, the succeeding conclusions were drawn:

- In the most cases, the structure of the learning outcomes in the examples of particular qualifications, includes a list of learning outcomes statements without any differentiation of the dimensions (knowledge, skills, competences) used for the national level descriptors.
- For five of the samples of qualifications, the learning outcomes have an introductory sentence which indicates particular dimensions of learning outcomes (e.g. knowledge, skills, competences).
- The form and content of introductory statement (or its absence) determines how the learning outcomes are formulated and organised.

According to the results of the analysis of the learning outcomes of the Master's degree in Business Administration, the content of the learning outcomes may be considered as a strength, as at conceptual level the learning outcomes of this qualification represent rather similar ideas and, thus, the qualification could be automatically recognised between all the partner countries. Whereas the learning outcomes of the Bachelor's degree in Physics and the Master's degree in Psychology in terms of the content are more heterogeneous creating more interpretation and discussions about possibility to have an automatic recognition of these qualifications between the partner countries. To summarise, the results of study allowed making assumptions that in the case of social sciences formulating more precise and well-structured learning outcomes seems to be easier exercise compared to the fields of science, technology, engineering and mathematics. Yet in order to have more evidence and draw more general conclusions, the analysis of other qualification examples from various fields (e.g. engineering, applied sciences, arts and humanities) should be conducted. However, both qualitative and quantitative analysis methods have to be used to ensure a thorough understanding as to whether the learning outcomes of qualifications are comparable.

The following conclusions may be drawn about the content of the learning outcomes of the qualification samples:

- The learning outcomes of the qualifications were designed using similar references as regards knowledge, skills and competences necessary for the qualifications. Meanwhile, some national or institutional characteristics may be observed as some qualifications comprise learning outcomes with a specific content.
- When grouping the learning outcomes of qualification samples by certain topics (e.g. knowledge, research, problem solving), some examples of qualifications have a rather

balanced division of the learning outcomes between the topics, while others are more focused on particular area(s) (e.g. topics of research, knowledge, professional work). Thus, qualification providers have different approach towards content design of the qualification.

- The learning outcomes of all the qualification samples include aspect of research and (in most cases) knowledge. However, the content analysis of learning outcomes indicates that the learning outcomes comprise rather varied concepts and ideas, which may hinder recognising the qualifications automatically between all the partner countries.
- Comparing to other qualification samples, the learning outcomes of the Master's degree in Business Administration are rather diverse covering too many fields to be easily compared, although the groups of learning outcomes are similar to an extent.
- The profiling of the learning outcomes of the qualification samples with the online UNESCO World Reference Levels tool indicates that the Bachelor's degree in Physics has clearly lower reference levels on average comparing to the both Master's degree qualifications.
- The learning outcomes of the qualification samples are different in terms of the scale of their detail, e.g. in the most cases of the British qualifications the learning outcomes are in greater number and describe more narrow aspects, while the learning outcomes of the Bachelor's degree in Physics from Armenia are more general and comprehensive comparing to other qualifications samples.
- The analysis of the qualification samples and their learning outcomes had a certain limitations since the English translations of the learning outcomes (except the British qualifications) were explored.

The analysis of learning outcomes of three sample HE qualifications awarded in the project partner countries allowed drawing some conclusions as regards the recognition of these qualifications:

- Considering the contextual information and learning outcomes, the Bachelor's degree in Physics could be automatically recognised between the partner countries in terms of the qualification level, i.e. Bachelor's degree (EQF level 6).
- The Master's degree in Psychology could be automatically recognised between the partner countries in terms of further access to the doctoral studies. Access to the profession remains at the discretion of employers.
- Taking into account the contextual information and the learning outcomes of the qualification, the Master's degree in Business Administration could be automatically recognised between the partner countries.
- The methods used in the analysis of learning outcomes are very effective in order to explore the structure, formulation and content of the learning outcomes from different dimensions.
- Regarding the contextual information of all the three qualifications that were analysed in this comparative study, the qualifications could be automatically recognised between all the partner countries.
- In terms of structure, clarity, formulation and content of the learning outcomes of the analysed qualifications, only the Master's degree in Business Administration could be automatically recognised between all the partner countries. In the case of Bachelor's degree in Physics and Master's degree in Psychology could not be automatically recognised between the partner countries because more differences were observed in the content of learning outcomes than similarities.

- However, the extent of differences or variations in the learning outcomes of the analysed qualifications acceptable for them not to be a substantial obstacle for automatic recognition should still be explored and determined.
- Comparing the learning outcomes of the Master's degrees for automatic recognition seems to be less challenging than the learning outcomes of the Bachelor's degrees since the bachelor studies comprise larger workload and the learning outcomes are more field specific. Yet the analysis of more qualification examples should be conducted to draw more comprehensive conclusions in this regard.

The results of comparative study led to the following general conclusions:

- In order to achieve automatic recognition of higher education qualifications, Lisbon Recognition Convention and its subsidiary texts, as well as other regulations, e.g. bilateral agreements, that stipulate recognition should be taken into consideration.
- In order to facilitate the automatic recognition of higher education qualifications, Diploma Supplement (according to the model developed by the European Commission, Council of Europe and UNESCO/CEPES) should be issued.
- In order to ensure that learning outcomes are efficiently used in the recognition of qualifications, credential evaluators need to have thorough knowledge about reading, understanding, formulating and using learning outcomes.
- For learning outcomes to be used in the recognition of qualifications, they should be publicly available and well-written and precise.
- The approach towards degree of detail of the analysed learning outcomes varies by the partner country, i.e. the qualification samples from some countries have more generic descriptions of learning outcomes, others – more specific and detailed.
- Implementation of Bologna tools such as Diploma Supplement, ECTS credits, qualifications frameworks, effective ENIC and NARIC networks and following the European Standards and Guidelines for Quality Assurance of Higher Education are crucial in order to achieve automatic recognition of higher education qualifications.

7. RECOMMENDATIONS AND PROPOSALS FOR A MORE EFFECTIVE USE OF LEARNING OUTCOMES AND NQFs IN RECOGNITION PROCESS

7. Recommendations and proposals for a more effective use of learning outcomes and NQFs in recognition process

The challenges of using learning outcomes in recognition identified in this study led to a number of recommendations and proposals on how learning outcomes can be used in the recognition process.

The following recommendations about **learning outcomes** were provided:

- The structure, formulation of learning outcomes should be improved by creating common guidelines on how HEIs should write learning outcomes in relation to the recognition practice. The content of the learning outcomes (topics, themes) would remain at the discretion of each provider. Depending on the national context, the guidelines could be designed by the ENIC/NARIC offices engaging with HEIs and relevant local government authorities.
- The availability of learning outcomes (and their translation into a commonly language) should be promoted by introducing discussion among HEIs and ENIC/NARIC offices about the sources of learning outcomes.
- Updating ENIC and NARIC networks, as well as HEIs about the relevance and importance of learning outcomes of qualifications to ensure comparability and recognition of qualifications.

The succeeding recommendations about the **NQFs** in **EHEA** were provided:

- Reliable information about the QF-EHEA and EQF level descriptors should be updated regarding the current tendencies in the EHEA and published in reliable online sources, e.g. EHEA website.
- Improve the level descriptors of the NQFs or provide more guidelines for HEIs on how to formulate the learning outcomes in accordance with the NQF level descriptors.

The following recommendations about the **recognition procedures** were provided:

- In order to gain the overview of the current situation on how the ENIC/NARIC offices use learning outcomes in the recognition procedures, a survey of ENIC/NARIC offices should be elaborated and conducted. Based on the survey results, a methodology on how to assess learning outcomes during the recognition procedures could be developed to ensure guidance and training to credential evaluators in qualification recognition.
- Regular trainings and methodological guidance for credential evaluators about learning outcomes and their use in recognition should be provided.
- Implementing and presenting standardised learning outcome analysis methods and tools to ENIC/NARIC offices and HEIs for their use of analysing the learning outcomes in recognition.
- In order to use learning outcomes of qualifications in recognition more efficiently, more evidence should be gathered to design guidelines about steps of using the learning outcomes during the evaluation of credentials.
- Closer cooperation between the ENIC/NARIC offices and strengthening communication and collaboration with HEIs should be ensured, since HEIs are responsible for the structure, formulation, content of the learning outcomes of the qualifications they provide.

Appendices

Annex 1. Schemes of higher education systems

Annex 2. National Qualifications Frameworks (EQF levels 5/6-8)

Annex 3. NQF level descriptors (EQF levels 5/6-8)

Annex 4. Template of the fiche

Annex 5. Agenda of the comparative study

Annex 6. Contextual information of the qualifications

Annex 7. Completed fiches of the partner countries

Annex 8. The results of keyword analysis in the learning outcomes

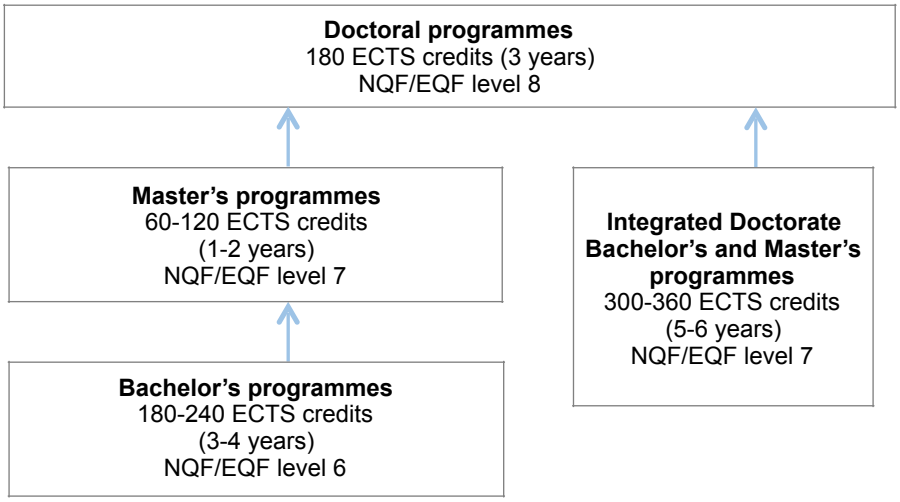
Annex 9. The results of the content analysis of the learning outcomes

Annex 1.

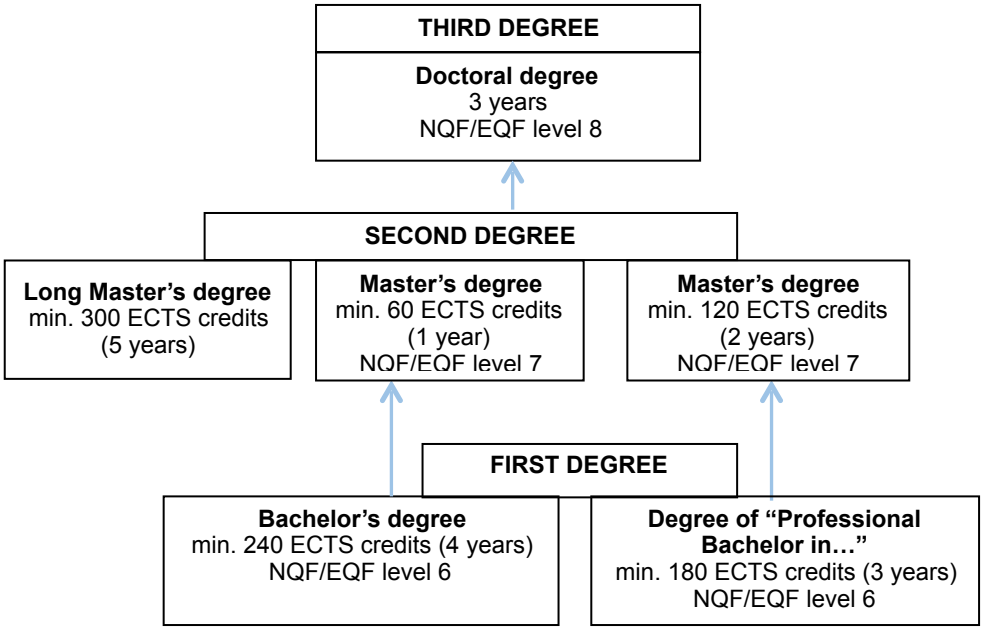
Schemes of higher education systems

Annex 1. Schemes of higher education systems

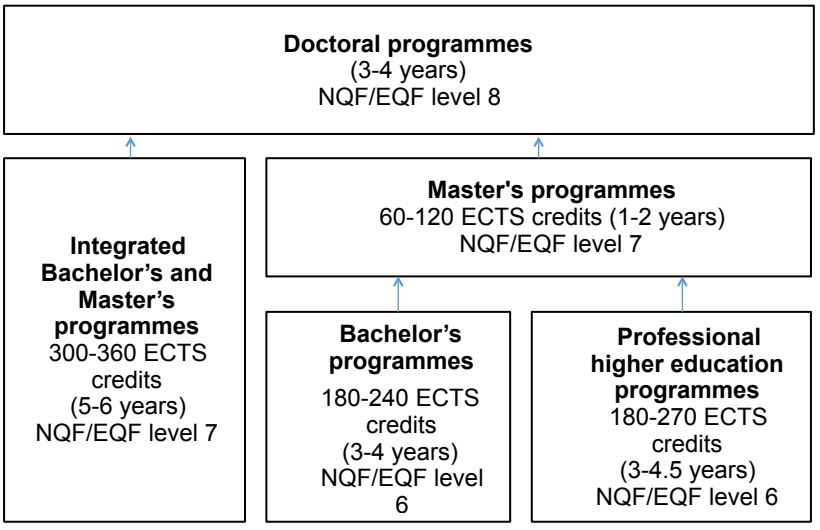
HE scheme in Armenia



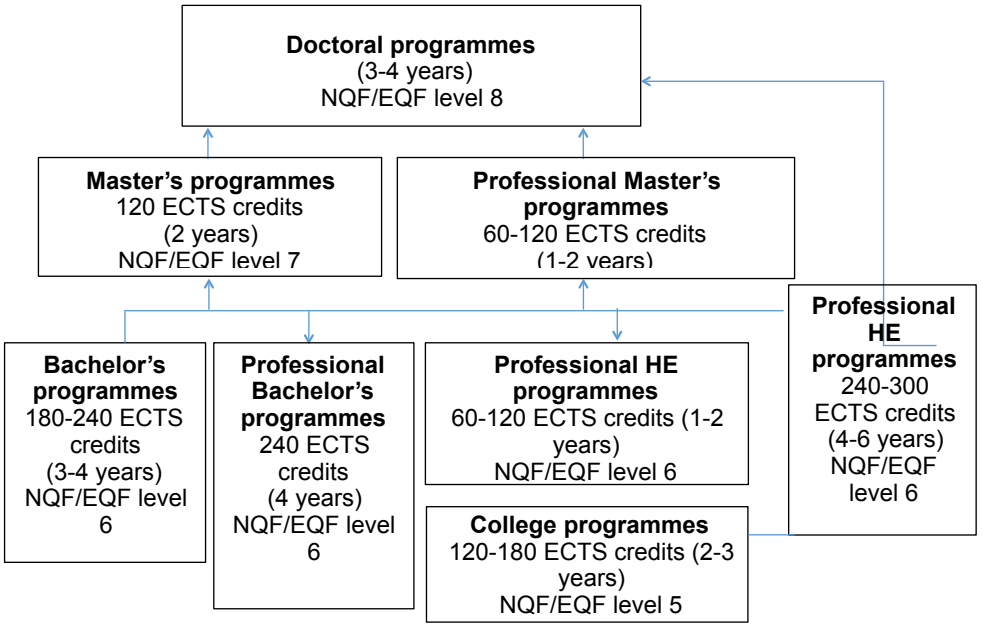
HE scheme in Bulgaria



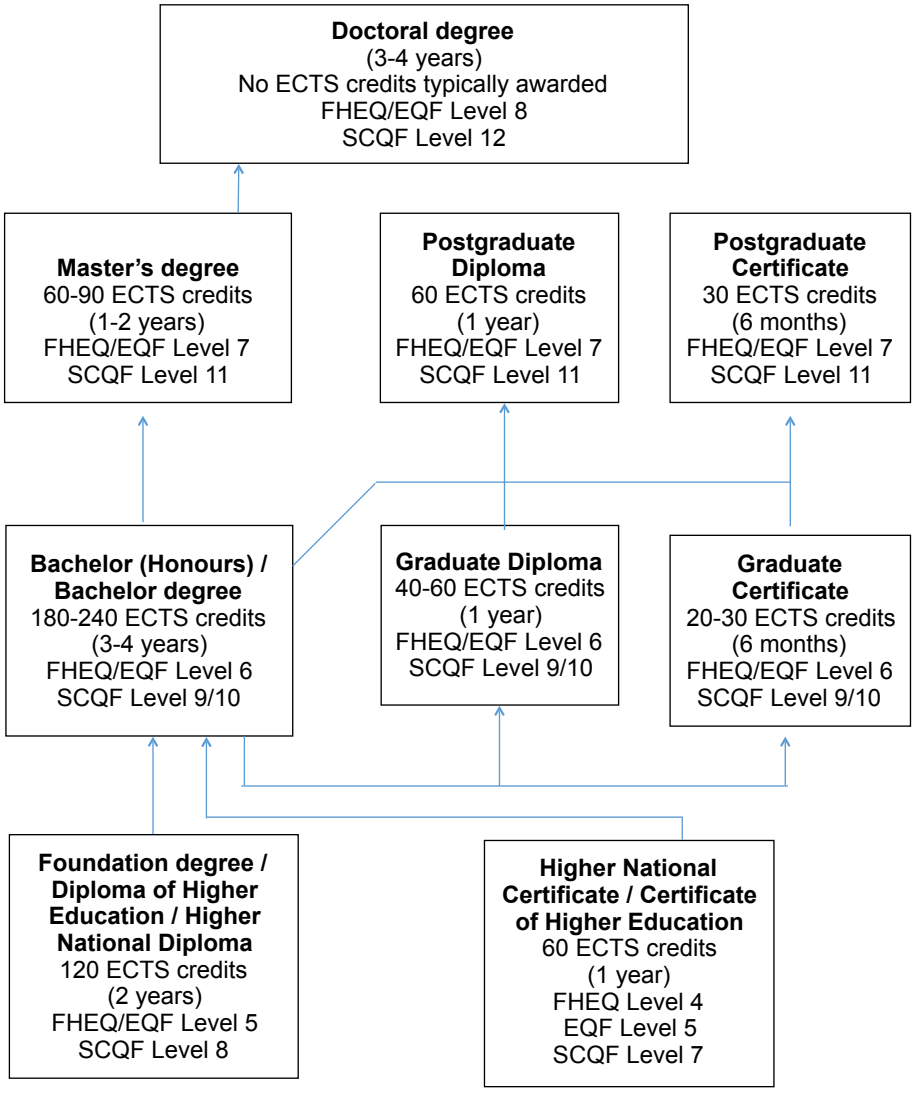
HE scheme in Estonia



HE scheme in Latvia



HE scheme in the United Kingdom



FHEQ = Framework for Higher Education Qualifications

SCQF = Scottish Credit and Qualifications Framework

Annex 2.

National Qualifications Frameworks (EQF levels 5/6-8)

Annex 2. National Qualifications Frameworks for HE (EQF levels 5/6-8)

NQF for HE in Armenia

NQF level	EQF level	Qualification
ANQF level 8	EQF level 8	Candidate of science / PhD (Գիտությունների թեկնածու)
ANQF level 7	EQF level 7	Master (Մագիստրոս) Diploma specialist (Դիպլոմավորված մասնագետ)
ANQF level 6	EQF level 6	Bachelor (Բակալավր)

NQF for HE in Bulgaria

BQF levels	BQF	EQF levels
8	Doctoral degree (*Доктор*)	**8**
7	Master's degree (*Магистър*)	**7**
6	Bachelor's degree (*Бакалавър*) Degree of "Professional Bachelor in…" (*Професионален бакалавър по ...*)	**6**

NQF for HE in Estonia[19]

Degree	Nominal length of programme	ECTS credits	QF-EHEA level	EQF level
Doctor (*Doktor*)	3-4 years	No credits since 01.09.2019	Third-cycle	Level 8
Master (*Magister*)	1-2 years (together with the first cycle programme at least 5[19] years)	60-120 ECTS credits	Second-cycle	Level 7
Degrees of integrated Bachelor's and Master's programmes	5-6 years	300-360 ECTS credits	Second-cycle	Level 7
Diploma of Professional Higher Education (*Rakenduskõrghariduse diplom*)	3-4.5 years	180-270 ECTS credits	First-cycle	Level 6
Bachelor (*Bakalaureus*)	3-4 years	180-240 ECTS credits	First-cycle	Level 6

[19] With the amendments to the Higher Education Act in 2019 (Kõrgharidusseadus, RT I, 19.03.2019, 12), the requirement of five years studies in total to obtain a Master's degree will be withdrawn starting from 2019/2020 academic year.

NQF for HE in Latvia

Qualifications	LQF level
Diploma of first level professional higher education (*pirmā līmeņa profesionālās augstākās izglītības diploms*) (college education, length of full-time studies – 2 to 3 years)	5
Bachelor's diploma (*bakalaura diploms*) Professional Bachelor's diploma (*profesionālā bakalaura diploms*) Diploma of professional higher education, diploma of higher professional qualification (*profesionālās augstākās izglītības diploms, augstākās izglītības diploms, augstākās profesionālās kvalifikācijas diploms*) (length of full-time studies – at least 4 years)	6
Master's diploma (*maģistra diploms*) Professional Master's diploma (*profesionālā maģistra diploms*) Diploma of professional higher education, diploma of higher professional qualification (*profesionālās augstākās izglītības diploms, augstākās profesionālās kvalifikācijas diploms*) (total length of full-time studies – at least 5 years)	7
Doctor's diploma (*doktora diploms*) Professional Doctor's diploma in arts (*profesionālā doktora diploms mākslās*)	8

NQF for HE in the United Kingdom

Level	Framework for Higher Education Qualifications in England, Wales and Northern Ireland	Level	Scottish Credit and Qualifications Framework
8	Doctoral Degrees	**12**	Doctoral Degrees
7	Master's Degrees, Integrated Master's Degrees Postgraduate Diplomas Postgraduate Certificate in Education (PGCE) Postgraduate Certificates	**11**	Master's Degrees Integrated Master's Degrees Postgraduate Diplomas Postgraduate Certificates
6	Bachelor's Degrees with Honours Bachelor's Degrees Professional Graduate Certificate in Education (PGCE) Graduate Diplomas Graduate Certificates	**10**	Bachelor's Degrees with Honours Graduate Diplomas Graduate Certificates
		9	Bachelor's/Ordinary Degrees Graduate Diplomas Graduate Certificates
5	Foundation Degrees Diplomas of Higher Education (DipHE) Higher National Diplomas (HND)		
		8	Higher National Diplomas (HND) Diplomas of Higher Education (DipHE)
4	Higher National Certificates (HNC) Certificates of Higher Education (CertHE)	**7**	Higher National Certificates (HNC) Certificates of Higher Education (CertHE) Scottish Baccalaureate Advanced Higher

Annex 3.

NQF level descriptors (EQF levels 5/6-8)

Annex 3. NQF level descriptors (EQF levels 5/6-8)

NQF level descriptors for HE in Armenia

EDUCATIONAL LEVEL (Qualification)		1st (BACHELOR)	2nd (MASTER)	3rd (CANDIDATE OF SCIENCE)
General description (characteristic) of the qualification		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	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	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
KNOWLEDGE	**1. Knowledge and understanding**	Demonstrates advanced knowledge and understanding of basic and state-of-the-art concepts, theories and methods within the field of professional work or study	Demonstrates profound professional knowledge, including on the recent achievements of the field, which applies for study, work and research Demonstrates deep understanding of theories, advanced concepts and methods of the given specialty and at the interface between different fields	Demonstrates advanced knowledge specific to the specialty area and related intersecting fields, which applies in scientific research and professional work 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
SKILLS	**2. Applying knowledge and understanding**	Can apply acquired knowledge and understanding, basic principles and methods of the field for solving problems during the professional work or study	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	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
	3. Communication, ICT and numeracy skills	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 Can apply ICTs to solve problems and intensify work in the specialty area Can collect, process, analyse and interpret relevant quantitative and qualitative data within the specialty area to make reasonable judgments	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 Can apply ICTs thoroughly to solve new complex problems and to support conducting research in the specialty area and/or related intersecting fields 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	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 Can apply ICTs in a proficient way to implement scientific research and create new knowledge Can evaluate and transform a wide range of quantitative and qualitative data from different interrelated fields to generate complex ideas and create new knowledge
	4. Generic cognitive skills (including making judgments)	Can analyse and make judgments applying critical thinking, as well as demonstrate creativity to identify and provide different solutions to the problems of the specialty area	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	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 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

EDUCATIONAL LEVEL (Qualification)		1st (BACHELOR)	2nd (MASTER)	3rd (CANDIDATE OF SCIENCE)
COMPETENCE	**5. Autonomy and responsibility (including learning skills)**	Can undertake full-fledged professional activity, manage professional functions and projects, and make autonomous decisions Can manage working team and take on responsibility for the professional activity of its members Is able to identify one's educational needs and/or career opportunities to decide on the ways of further study Is able to take personal responsibility for the nation and the State, follow up the realisation of democratic principles and dissemination of national and human values	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 Can create and manage professional or research team and take on lead responsibility for the professional advancement of its members Is able to evaluate one's demand for continuous study and needs for professional development to continue education in different environments Is able to promote the development of civic society and combine national value system with common human values	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 Can create and lead a scientific-research or professional team and promote the research advancement of its members Is able to promote the scientific, technological, social or cultural progress of the society within academic and professional contexts Is able to promote the sustainable development of science, the nation and the State by protecting national and common human values
Workload in ECTS credits		180-240	60-120	180

NQF level descriptors for HE in Bulgaria

Level of the EQF Level of the QF-EHEA	Level of the BQF	KNOWLEDGE – Knowledge is described as theoretical and/or factual	SKILLS – skills are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments)	COMPETENCES – PERSONAL AND PROFESSIONAL Competence is described in terms of responsibility and autonomy			
				Autonomy and Responsibility	Learning Competences	Communicative and Social Competences	Professional Competences
EQF LEVEL 6/ First cycle of QF-EHEA	**NQF LEVEL 6 DEGREE OF "PROFESSIONAL BACHELOR IN…" 180 ECTS credits**	• has and uses detailed, theoretical and concrete practical knowledge in the field of study • makes a critical analysis of principles and processes	• has mastered the methods and means in the field of study • applies the acquired knowledge and practical experience in a professional way, adopting innovative, unconventional approaches and making well-justified decisions	• takes responsibility for managing high performance teams and resources, including in extreme situations during site operation and structure management • has creative thinking and practical skills in project development and implementation, considering the influence of a variety of factors • takes responsibility during site operation • can evaluate one's own and other people's performance • manages teamwork and provides professional trainings to staff	• judges critically one's own preparation and the degree to which the acquired knowledge is consistent with the knowledge required by the profession • defines one's own educational needs to improve one's own qualification and/or gain further professional qualifications	• analyses ideas, addresses problems and proposes solutions in professional contexts to equals and seniors higher up in the hierarchy as well as to non-specialists • formulates a convicting opinions based on qualitative and quantitative facts, arguments and criteria • presents one's own views on particular and global issues clearly, judges and accepts the arguments of interlocutors • demonstrates commitment and solidarity towards others • can communicate effectively in some of the most commonly used European languages	• gathers, processes and analyses data with the purpose of optimisation and/or final solutions or innovative ideas • contributes to the completion of operative tasks in conventional and unconventional situations • settles social, moral and ethical issues, especially in teamwork and trainings
EQF LEVEL 6/ First cycle of QFEHEA	**NQF LEVEL 6 BACHELOR'S DEGREE 240 ECTS credits**	• has extensive and in-depth theoretical and factual knowledge in a field of study, including knowledge relating to the latest achievements • interprets the acquired knowledge independently, relating it to facts and critical perception, comprehension and formulation of theories and principles	• able to use methods and means which allow for the accomplishment of complex tasks • applies logical thinking, shows creativity and takes novel approaches in carrying out unconventional tasks	• possesses a capability for administrative management of complex professional activities, including teams and resources • assumes responsibility for taking decisions in adverse circumstances under the influence of a variety of interacting factors which are hard to foresee • shows creativity and initiative in management • recognises the need for staff training with the purpose of increasing staff effectiveness	• assesses one's own qualifications properly by evaluating the knowledge and skills acquired so far, recognising the need for expanding and updating one's own professional qualifications	• clear formulation and expression of ideas, problems and solutions before experts and non-experts • expresses an opinion and shows understanding of issues, using methods based on qualitative and quantitative descriptions and evaluation • has a broad outlook on life and shows understanding and solidarity towards others • can communicate effectively in some of the most commonly used European languages	• gathers, classifies, assesses and interprets data in a field of study to fulfil specific tasks • applies the acquired knowledge and skills in new and unfamiliar contexts • capable of making analyses in broader or interdisciplinary contexts • adopts new strategic approaches; formulates and expresses own opinion about social and ethical issues arising during work

EQF LEVEL 7/ Second cycle of QF-EHEA	**NQF LEVEL 7 MASTER'S DEGREE** • **Master's degree after obtaining a Professional Bachelor's degree 120 ECTS credits** • **Master's degree after obtaining a Bachelor's degree in the same professional field 60 ECTS credits** • **Master's degree after obtaining a Bachelor's degree in another professional field 120 ECTS credits** • **Master's degree in a subject which stipulates education only in this degree 300 ECTS credits**	• has a wide spectrum of theoretical and practical knowledge, part of which is specialised knowledge in the respective field, which serves to broaden the knowledge acquired during the previous education stage • knows and expresses theories, concepts, principles and observation of certain laws • has highly specialised practical and theoretical knowledge, incl. avant-garde knowledge, which serves as a basis for originality in developing and applying new ideas and solutions • demonstrates critical understanding of the knowledge in the field of study and interdisciplinary relationships	• has a wide range of practical and cognitive skills in different fields of study required to understand abstract problems and develop creative solutions • carries out problem diagnostics • carries out problem diagnostics and solving, based on contemporary research through integrating knowledge from new or interdisciplinary fields, which are related to implementation of research and introduction of innovations • makes an adequate assessment of situations with insufficient or limited data and unpredictability • develops new and various skills as a response to emerging knowledge and practices • freely employs innovative methods and instruments in solving complicated and unpredictable problems in a specialised field of work • finds and supports arguments in solving interdisciplinary problems • shows initiative in a field of work and study in complex unpredictable contexts which required finding solutions to problems with a number of interacting factors	• can build administrative and organisational structures, independently manage teams to find solutions to complex problems in unpredictable contexts with a variety of interacting factors and possibilities • demonstrates operational mastery in managing change in complex contexts • shows creativity and innovation in projects development • initiates processes and organises activities which require very good coordination • formulates policies and demonstrates leadership skills for their implementation	• systematically and thoroughly evaluates one's own knowledge, recognising the need for acquiring more knowledge • demonstrates a high degree of autonomy, easily orients oneself to complex educational content, adopting own approaches and methods to master it • uses a variety of methods and techniques to master complex subject areas • has a rich conceptual apparatus and is capable of conceptual and abstract thinking	• can express one's own opinion in a simple and clear way, formulates problems and proposes possible solutions before expert and non-expert audiences, using a large number of techniques and approaches • develops and presents well-argumented opinions about social processes and practices, making justified proposals for their improvement or change • can communicate effectively in some of the most commonly used European languages	• gathers, processes and interprets specialised information required to find solutions to complex problems in a field of study • integrates a wide spectrum of knowledge and sources in new and relatively unfamiliar contexts • make reasonable evaluations and finds solutions in complex interactional contexts • demonstrates adequate behaviour and interaction in professional and/or specialised contexts • ability to solve problems by integrating comprehensive sources in unfamiliar contexts with insufficient information • can initiate changes and manage development processes in difficult contexts • becomes involved in important scientific, social and moral problems arising during work or study processes

EQF LEVEL 8/ Third cycle of QFEHEA	**NQF LEVEL 8** **DOCTORAL DEGREE** **No ECTS credits required**	• has and uses specialised and systematic knowledge to make a critical analysis and synthesise new ideas • proficiently employs the methods of scientific research in a field of study • ability to broaden and improve current knowledge in a field of study as well as its interaction with close scientific areas • demonstrates knowledge with the highest degree of complexity and carries out original research • demonstrates knowledge and understanding at the highest possible degree not only of chosen field of study but also in neighbouring scientific areas • demonstrates and applies knowledge through the degree of complexity of the conducted, recognised and well-founded academic research	• ability to form and manage networks or teams, allocate time and manage human and financial resources, find solutions to complicated problems by employing new technological methods and instruments • quickly gathers, extracts, classifies, synthesises and assesses the required data both from detailed and scarce sources • ability to solve and overcome serious problems in a research field and/or innovation, improve standard models and approaches, develop innovative solutions by combining a variety of original strategies and technologies, manage unsuccessful attempts and continue developing, improve standard models and approaches • has methods and means to foresee changes and problems, disregard the context and think innovatively, develop and propose reasonable plans, put into effect new ideas, acquire quickly new skills and qualities, foresee technological and creative development, write and present new scholarly and technical documents (scientific articles, summaries, reports, figures, graphs, etc.); communicate through different media in front of diverse audiences • has the following skills: resilience, entrepreneurial spirit, tenacity, strictness, adaptability and intellectual flexibility	• creates and interprets new knowledge on the basis of own research or other scholarly activity • uses the new knowledge to demonstrate an ability to expand the scope of existing scientific areas and recognises the need for live publications • ability to evaluate the merits of own research • ability to make up, design, implement and adapt a contemporary research process in conformity with scholarly norms	• has a capacity for a systematic acquisition and understanding of a considerable amount of knowledge about the latest scientific achievements or a field of professional practice	• show qualities and transferable skills which require an enhanced sense of personal responsibility and self-initiative in complex and unpredictable circumstances as well as in professional or similar contexts • ability to conceptualise, design and implement projects with the purpose of generating new knowledge, applying and understanding the latest achievements as well as to adapt the project design to unpredictable circumstances • can communicate effectively in some of the most common European languages	• has a profound understanding of the techniques used for scientific and complex academic research • makes a thorough evaluation of complex issues in a field of study, often in the absence of extensive data, and presents one's own ideas and conclusions clearly and effectively before experts and non-experts • capacity to continue conducting fundamental or applied scientific research at increasingly complex levels, contributing to the development of new techniques, ideas or approaches

NQF level descriptors for HE in Estonia

In order to be awarded a degree of Bachelor (*Bakalaureus*), a student shall:

- have a systematic overview of the basic concepts, theoretical principles and research methods in the field of study;
- be able to identify interdisciplinary relationships;
- understand the scopes of application of different specialities in the field of study;
- know the theoretical schools, development trends and current problems in the field of study;
- be able to formulate problems relating to the field of study and to analyse and evaluate different solutions;
- be able to collect information independently by using appropriate methods and means and to interpret it critically and creatively;
- be able to select and use appropriate technologies and methods when solving problems in the field of study, and, among other things, be willing to participate in team work and lead it;
- have command of the communication skills and information and communication technologies necessary for work;
- be able to explain orally or in written form in the language of instruction and in at least one foreign language problems relating to the field of study, and to participate in professional discussions;
- be willing to actively participate in the civil society and demonstrate tolerance towards diversity of attitudes and values;
- be able to evaluate the role of knowledge and the role and consequences of his or her professional activities in society, with consideration of scientific, social and ethical aspects;
- be able to apply the acquired knowledge and skills in work, to continue studies and to undertake continuous independent professional development.

In order to be awarded a Diploma of Professional Higher Education, a student shall:

- have a systematic overview of the basic concepts, theoretical principles and research methods in the field of study;
- be able to identify interdisciplinary connections in scopes of application in different fields of study;
- know current problems and potential applications in the field of study;
- be able to formulate problems relating to the field of study and to analyse and evaluate different solutions;
- be able to collect information independently by using appropriate methods and means and to interpret it critically and creatively;
- be able to select and use appropriate methods and technologies when solving problems in the field of study within given frameworks, and to model and/or assess potential results on the basis of given information;
- show initiative in initiating projects as well as responsibility, leadership and team work skills in implementation thereof;
- have command of the communication skills and information and communication technologies necessary for work;
- be able to explain orally or in written form in the language of instruction and in at least one foreign language problems relating to the field of study, and to participate in professional discussions;

- be willing to actively participate in the civil society and demonstrate tolerance towards diversity of attitudes and values;
- be able to evaluate the role and consequences of professional activities in society, with consideration of social and ethical aspects;
- be able to apply the acquired knowledge and skills in work, willing to engage as a specialist or undertaking in his or her field of profession;
- be able to undertake continuous independent professional development.

In order to be awarded a degree of Master (*Magister*) and a degree awarded upon completion of the integrated long cycle, a student shall:

- have systematic overview and broad knowledge of concepts, theories and research methods in the field of study;
- know the theoretical development trends, current problems and potential applications in the field of study;
- have in depth-knowledge in a narrower research field in the field of research;
- be able to identify and create interdisciplinary connections;
- be able to independently and creatively identify and formulate problems and/or research questions related to the field of study and be able to solve them with appropriate measures within given timeframes and within limited information, using of knowledge of other fields as necessary.
- be able to select and use appropriate methods and technologies when solving problems in the field of study, and to model and/or assess the potential results;
- be able to critically evaluate his or her activities when solving problems and/or research questions of the field of study;
- be prepared to work in an area of activity requiring professional qualifications, showing initiative, responsibility, leadership and team work skills;
- be able to hand down with competence his or her knowledge by teaching, instruction or in another manner;
- be able to present and reason orally or in written form in the language of instruction and a foreign language essential for his or her field of study the problems relating to the field of study, conclusions and the underlying theories, and to participate in relevant discussions of both corresponding specialists and non-specialists;
- be willing to actively participate in the civil society and demonstrate tolerance towards diversity of attitudes and values;
- be able to act ethically in complex situations, be aware of the ethical aspects, possibilities, restrictions and social role of his or her activities and be able to provide reasoned assessment in issues concerning his or her field of study;
- be able to evaluate his or her need, and the need of others, of continuing education and professional development, and have command of effective methods necessary for independent study;
- be able to continue studies or participate in research, act as a specialist or developer in his or her field, including internationally.

In order to be awarded a degree of Doctor (*Doktor*), a student shall:

- have broad knowledge and systematic overview within his or her field of research and in-depth and up-to-date knowledge within a narrower sphere in the field of research;
- understand the meaning and scope of the existing knowledge and research methods of the field of research and between fields so as to extend, revaluate and formulate them as necessary;

- be able to independently and critically analyse, synthesise and evaluate new and complex ideas relating to the field of study, as well as creatively and with scientific accuracy identify and formulate research questions;
- have command of research methods of his or her field of research;
- be able to act independently in complex situations, including international work and study environment, including in research which requires leadership and team work skills, innovative thinking and the ability of making strategic decisions;
- be able to initiate, design, implement and critically evaluate research and development projects that lead to new knowledge and new procedural solutions;
- be able to provide scientific ethical assessments, show insight into the possibilities and limitations of science, the social role of science and the responsibility of people in the use of scientific achievements;
- be able to analyse social norms and relationships, comply therewith and act to change them as necessary;
- be able to present orally or in written form the problems and conclusions relating to the branch of science and his or her research, and the underlying theories, both to specialist audiences and in communication with non-specialists, and to present reasons and participate in relevant discussions in the language of instruction and a foreign language essential for his or her field of study, as well as to publish original scientific results in internationally pre-reviewed academic publications or, in fields of study related to arts, creative works for international audience;
- have an ability to identify his or her need of further knowledge or skills and support the studies of others both in the context of education and science as well as on a wider social level;
- be able to hand down with competence his or her knowledge by teaching, instruction or in another manner.

NQF level descriptors for HE in Latvia

LQF level	Knowledge (knowledge and comprehension)	Skills (ability to apply knowledge, communication, general skills)	Competences (analysis, synthesis and assessment)
5	Able to demonstrate comprehensive and specialised knowledge and understanding of facts, theories, causalities and technologies of the relevant professional field	Able, on the basis of analytical approach, to perform practical tasks in the relevant profession, to demonstrate skills that allow to find creative solutions to professional problems, to discuss and provide arguments to practical issues and solutions in the relevant profession with colleagues, clients, and management, able to, with an appropriate degree of independence, to engage in further learning, by improving one's competences Able to assess and improve one's own actions and that of other individuals, to work in cooperation with others, to plan and organise work to perform specific tasks in the relevant profession, to perform or supervise work activities in contexts with unpredictable changes	Able to define, describe and analyse practical problems in their profession, select the necessary information and use it for solving clearly defined problems, participate in the development of the relevant professional field, demonstrate understanding of the role of the relevant profession in a broader social context

LQF level	Knowledge (knowledge and comprehension)	Skills (ability to apply knowledge, communication, general skills)	Competences (analysis, synthesis and assessment)
6	Able to demonstrate basic and specialised knowledge in the specific field of science or profession and critical understanding of this knowledge, furthermore, a part of this knowledge complies with the highest level of achievement of the relevant field of science or profession Able to demonstrate understanding of the most important concepts and causalities of the specific field of science or profession	Able, by using the mastered theoretical foundations and skills, to perform professional, artistic, innovative or research activity, define and describe analytically information, problems and solutions in the relevant field of science or profession, explain them and provide arguments in discussions with both professionals and non-professionals Is able to structure independently one's own learning, guide one's own and subordinates' further learning and professional improvement, demonstrate scientific approach to problem solving, assume responsibility and take initiative when performing individual work, when working in a team or managing the work of others, take decisions and find creative solutions in changing or unclear contexts	Able to obtain, select and analyse information independently, and use it, take decisions and solve problems in the specific field of science or profession, demonstrate understanding of professional ethics, assess the impact of one's professional activities on the environment and society, and participate in the development of the relevant professional field
7	Able to demonstrate advanced or extensive knowledge and understanding, a part of which conforms to the most recent findings in the relevant field of science or profession and which provides the basis for creative thinking or research, *inter alia*, working in the interface between different fields	Able to independently use theory, methods and problem-solving skills required to perform research or artistic activities or highly qualified professional functions Able to provide arguments when explaining and discussing complex or systemic aspects of the relevant field of science or profession both with professionals and non-professionals Able to manage independently the improvement of one's own competences and specialisation, assume responsibility for the results of staff and group work and analyse them, perform business activities, innovations in the specific field of science or profession, perform work, research or further learning under complex and unpredictable conditions and, if necessary, change them, using new approaches	Able to define independently and critically analyse complex scientific and professional problems, substantiate decisions and, if necessary, carry out additional analysis Able to integrate knowledge of various fields, contribute to the creation of new knowledge, the development of research or professional working methods, demonstrate understanding and ethical responsibility for the possible impact of the scientific results or professional activity on environment and society
8	Able to demonstrate that has knowledge of and understands most topical scientific theories and insights, has mastered research methodology and contemporary research methods in the specific field of science or profession and in the interface of various fields	Able to independently assess and select appropriate methods required for scientific research or artistic innovation, has contributed to the expansion of the limits of knowledge or provided new understanding of existing knowledge and its use in practice, by carrying out work of artistic innovation in the field of artistic innovation or an original large-scale research, a part of which is at the level of internationally cited publications Able to communicate both orally and in writing about one's own field of scientific activity (one's own branch) with wider research community and public in general. Able to implement artistic innovation projects of international level Able to independently improve one's scientific qualification, implement scientific projects, by attaining achievements meeting international criteria of the relevant field of science, manage research or development tasks in companies, institutions, and organisations that require extensive research knowledge and skills Able to independently improve the skills of performing artistically highly valuable works and develop practical skills required for implementing unique ideas of international level and artistic innovation work	Able, by performing independent critical analysis, synthesis and assessment, to carry out significant research, innovation or artistic innovation tasks in the field of artistic innovation, set independently research idea, plan, structure and manage large-scale scientific or artistic innovation projects, including international projects

NB: Each further level of Latvian Qualifications Framework comprises the knowledge, skills and competences defined for the preceding level.

NQF level descriptors for HE in the United Kingdom

Level	Descriptors
5	Foundation degrees are awarded to students who have demonstrated: • knowledge and critical understanding of the well-established principles of their area(s) of study, and of the way in which those principles have developed • ability to apply underlying concepts and principles outside the context in which they were first studied, including, where appropriate, the application of those principles in an employment context • knowledge of the main methods of enquiry in the subject(s) relevant to the named award, and ability to evaluate critically the appropriateness of different approaches to solving problems in the field of study • an understanding of the limits of their knowledge, and how this influences analyses and interpretations based on that knowledge. Typically, holders of the qualification will be able to: • use a range of established techniques to initiate and undertake critical analysis of information, and to propose solutions to problems arising from that analysis • effectively communicate information, arguments and analysis in a variety of forms to specialist and non-specialist audiences and deploy key techniques of the discipline effectively • undertake further training, develop existing skills and acquire new competences that will enable them to assume significant responsibility within organisations. And holders will have: • the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and decision-making.
6	Bachelor's degrees with honours are awarded to students who have demonstrated: • a systematic understanding of key aspects of their field of study, including acquisition of coherent and detailed knowledge, at least some of which is at, or informed by, the forefront of defined aspects of a discipline • an ability to deploy accurately established techniques of analysis and enquiry within a discipline • conceptual understanding that enables the student: ‣ to devise and sustain arguments, and/or to solve problems, using ideas and techniques, some of which are at the forefront of a discipline ‣ to describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline • an appreciation of the uncertainty, ambiguity and limits of knowledge • the ability to manage their own learning, and to make use of scholarly reviews and primary sources (for example, refereed research articles and/or original materials appropriate to the discipline). Typically, holders of the qualification will be able to: • apply the methods and techniques that they have learned to review, consolidate, extend and apply their knowledge and understanding, and to initiate and carry out projects • critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete), to make judgements, and to frame appropriate questions to achieve a • solution – or identify a range of solutions – to a problem • communicate information, ideas, problems and solutions to both specialist and non-specialist audiences. And holders will have: • the qualities and transferable skills necessary for employment requiring: ‣ the exercise of initiative and personal responsibility ‣ decision-making in complex and unpredictable contexts ‣ the learning ability needed to undertake appropriate further training of a professional or equivalent nature.

Level	Descriptors
7	Master's degrees are awarded to students who have demonstrated: • a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study or area of professional practice • a comprehensive understanding of techniques applicable to their own research or advanced scholarship • originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline • conceptual understanding that enables the student: ‣ to evaluate critically current research and advanced scholarship in the discipline ‣ to evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses. Typically, holders of the qualification will be able to: • deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences • demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level • continue to advance their knowledge and understanding, and to develop new skills to a high level. And holders will have: • the qualities and transferable skills necessary for employment requiring: ‣ the exercise of initiative and personal responsibility ‣ decision-making in complex and unpredictable situations ‣ the independent learning ability required for continuing professional development.
8	Doctoral degrees are awarded to students who have demonstrated: • the creation and interpretation of new knowledge, through original research or other advanced scholarship, of a quality to satisfy peer review, extend the forefront of the discipline, and merit publication • a systematic acquisition and understanding of a substantial body of knowledge which is at the forefront of an academic discipline or area of professional practice • the general ability to conceptualise, design and implement a project for the generation of new knowledge, applications or understanding at the forefront of the discipline, and to adjust the project design in the light of unforeseen problems • a detailed understanding of applicable techniques for research and advanced academic enquiry. Typically, holders of the qualification will be able to: • make informed judgements on complex issues in specialist fields, often in the absence of complete data, and be able to communicate their ideas and conclusions clearly and effectively to specialist and non-specialist audiences • continue to undertake pure and/or applied research and development at an advanced level, contributing substantially to the development of new techniques, ideas or approaches. And holders will have: • the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex and unpredictable situations, in professional or equivalent environments.

SCQF Level	Descriptors
7	Certificates of Higher Education are awarded to students who have demonstrated: • An outline knowledge of the scope and main areas of the subject(s) and its links with related subjects, and a more extensive knowledge of some of the key areas. • An understanding of the major theories, principles and concepts. • Familiarity with some of the routine materials, techniques and practices of the subject. • Skills for the gathering, basic analysis, and presentation of routine information, ideas, concepts and quantitative and qualitative data within a clearly defined context. This will include the use of information and communications technology (ICT) as appropriate to the subject. Typically, holders of the Certificate of Higher Education will be able to: • use their knowledge of the subject and its techniques in a routine manner to evaluate and formulate a range of arguments and solutions to problems and issues of a routine nature; • communicate the results of their study and other work accurately and reliably, and within structured and coherent arguments; • undertake further learning within a structured and managed environment; • apply their subject-related and transferable skills in contexts where individuals may have some limited personal responsibility, but the criteria for decisions and the scope of the task are well defined.
8	Diplomas of Higher Education are awarded to students who have demonstrated: • A knowledge and understanding of the scope and main areas of the subject(s) and its interactions with related subjects. Detailed knowledge of some key areas which may include some knowledge of current issues in limited specialised areas. • Familiarity and understanding of a range of the essential theories, principles and concepts and an awareness of major issues at the forefront of the subject(s). • Familiarity and effective deployment of essential/routine materials, techniques and practices of the subject(s). • Skills for the gathering, critical analysis and presentation of information, ideas, concepts and/or quantitative and qualitative data that is core to the subject(s). This will include the use of ICT as appropriate to the subject(s). Typically, holders of the qualification will be able to: • use their knowledge, understanding and skills to critically evaluate and formulate evidence-based arguments and identify solutions to clearly defined problems of a generally routine nature; • communicate the results of their study and other work accurately and reliably using a range of specialist techniques; • identify and address their own major learning needs within defined contexts and to undertake guided further learning in new areas; • apply their subject-related and transferable skills in contexts where the scope of the task and the criteria for decisions are generally well defined, but where some personal responsibility and initiative is required.

SCQF Level	Descriptors
9	Bachelor's degrees are awarded to students who have demonstrated: • A broad and comparative knowledge of the general scope of the subject, its different areas and applications, and its interactions with related subjects. A detailed knowledge of a defined subject or a more limited coverage of a specialist area balanced by a wider range of study. In each case, specialised study will be informed by current developments in the subject. • A critical understanding of the essential theories, principles and concepts of the subject(s) and of the ways in which these are developed through the main methods of enquiry in the subject. An awareness of the provisional nature of knowledge. • Familiarity and competence in the use of routine materials, practices and skills and of a few that are more specialised, advanced and complex. • Well-developed skills for the gathering, evaluation, analysis and presentation of information, ideas, concepts and quantitative and/or qualitative data, drawing on a wide range of current sources. This will include the use of ICT as appropriate to the subject(s). Typically, holders of the qualification will be able to: • use their knowledge, understanding and skills, in both identifying and analysing problems and issues and in formulating, evaluating and applying evidence-based solutions and arguments; • communicate the results of their studies and other work accurately and reliably in a range of different contexts using the main specialist concepts, constructs and techniques of the subject(s); • identify and address their own learning needs, including being able to draw on a range of current research, development and professional materials; • apply their subject and transferable skills to contexts where criteria for decisions and the scope of the task may be well defined but where personal responsibility, initiative and decision-making is also required.
10	Honours degrees are awarded to students who have demonstrated: • A systematic, extensive and comparative knowledge and understanding of the subject(s) as a whole and its links to related subject(s). A detailed knowledge of a few specialisms and developments, some of which are at, or informed by, the forefront of the subject. • A critical understanding of the established theories, principles and concepts, and of a number of advanced and emerging issues at the forefront of the subject(s). • A critical understanding of the uncertainty and limits of knowledge and how it is developed, and an ability to deploy established techniques of analysis and enquiry within the subject. • A comprehensive knowledge and familiarity with essential and advanced materials, techniques and skills including some at the forefront of the subject. • Skills in identifying information needs, and in the systematic gathering, analysis and interpretation of ideas, concepts and qualitative and quantitative data and information from a range of evaluated sources including current research, scholarly, and/or professional literature.
	Typically, holders of the honours degree will be able to: • use their knowledge, understanding and skills in the systematic and critical assessment of a wide range of concepts, ideas, and data (that may be incomplete), and in both identifying and analysing complex problems and issues; demonstrating some originality and creativity in formulating, evaluating and applying evidence-based solutions and arguments; • communicate the results of their study and other work accurately and reliably using the full repertoire of the principal concepts and constructs of the subject(s); • systematically identify and address their own learning needs both in current and in new areas, making use of research, development and professional materials as appropriate, including those related to the forefront of developments; • apply their subject-related and transferable skills in contexts of a professional or equivalent nature where there is a requirement for: ‣ the exercise of personal responsibility and initiative ‣ decision-making in complex and unpredictable contexts ‣ the ability to undertake further developments of a professional or equivalent nature.

SCQF Level	Descriptors
11	Master's degrees are awarded to students who have demonstrated: • a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study or area of professional practice • a comprehensive understanding of techniques applicable to their own research or advanced scholarship • originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline • conceptual understanding that enables the student: ‣ to evaluate critically current research and advanced scholarship in the discipline ‣ to evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses. Typically, holders of the qualification will be able to: • deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences • demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level • continue to advance their knowledge and understanding, and to develop new skills to a high level. And holders will have: • the qualities and transferable skills necessary for employment requiring: ‣ the exercise of initiative and personal responsibility ‣ decision-making in complex and unpredictable situations ‣ the independent learning ability required for continuing professional development.
12	Doctoral degrees are awarded to students who have demonstrated: • the creation and interpretation of new knowledge, through original research or other advanced scholarship, of a quality to satisfy peer review, extend the forefront of the discipline, and merit publication • a systematic acquisition and understanding of a substantial body of knowledge which is at the forefront of an academic discipline or area of professional practice • the general ability to conceptualise, design and implement a project for the generation of new knowledge, applications or understanding at the forefront of the discipline, and to adjust the project design in the light of unforeseen problems • a detailed understanding of applicable techniques for research and advanced academic enquiry. Typically, holders of the qualification will be able to: • make informed judgements on complex issues in specialist fields, often in the absence of complete data, and be able to communicate their ideas and conclusions clearly and effectively to specialist and non-specialist audiences • continue to undertake pure and/or applied research and development at an advanced level, contributing substantially to the development of new techniques, ideas or approaches. And holders will have: • the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex and unpredictable situations, in professional or equivalent environments.

Annex 4.

Template of the fiche

Annex 4. Template of the fiche

Qualification:

Level of NQF/EQF:

Country	
Full title of qualification (EN)	
Full title of qualification (national lng)	
Access requirements	
Admission requirements	
Workload (amount of ECTS credits)	
Mode of study (if relevant)	
Profile (academic, professional) *If relevant, add contextual information*	
Access to further studies	
Professional rights (if exists)	
Awarding of qualification	
• Requirements for graduation	
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	
• Procedure (if relevant)	
• Diploma Supplement (according to model developed by the European Commission, Council of Europe and UNESCO/CEPES) is awarded (Yes/No)	
• Other documents issued (Yes/No) ▪ If yes what title and type	
External quality assurance	
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	
• Title of quality assurance body (national, other)	
Learning outcomes	
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	
• Formulation of learning outcomes (who defines, who approves, ownership)	
• Learning outcomes are subject to quality assurance (Yes/No)	
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	
• Generic learning outcomes (e.g. national, sectoral)	
• Learning outcomes (as defined by qualification provider or awarding body)	
Any other relevant information regarding the qualification	

Annex 5.

Agenda of the comparative study

Annex 5. Agenda of the comparative study

Agenda in the context of the comparative study is to be understood as a list of activities performed during the study. QUATREC activities focused on encouraging the use of learning outcomes in credential evaluation for improved recognition in line with existing and emerging qualification frameworks and to compare the three selected qualifications for reliable recognition.

The main project activities were:

- June 2018 – informal meeting: agreeing on the date of the kick-off meeting, discussing criteria for the selection of members of steering group, discussing the members of the national working groups and discussing the criteria for selection of qualifications.
- August 2018 – kick-off meeting: selection and appointment of members of the steering group, selection and appointment of the members of national working groups, adoption of the working plan, choosing one bachelor and two master qualifications for in-depth study, agreement on the methodology of the desk research.
- September 2018 – February 2019 – desk research: preparing country fiches on the content agreed including selected higher education qualifications and their components, definitions and descriptions of qualifications and the overall comparison of selected three HE qualifications per country.
- April 2019 – project meeting on results of country fiches in Bulgaria: adopting the methodology and structure of the horizontal comparative study.
- February 2019 – July 2019 – comparative study/report writing: conducting horizontal comparison of three selected qualifications and conducting and writing the study report.
- August 2019 – project meeting on the results of comparative study in Estonia: discussing the results of comparative study, drafting the recommendations for use the qualifications frameworks and learning outcomes in the recognition procedures.
- March 2018 – February 2020 – dissemination of the results: web based dissemination (publishing information on partner websites and using partner's social media channels), networking (presenting project and its results and findings in different events).
- February 2020 – international conference: presentation of the results for stakeholders, higher education institutions and decision makers.

Annex 6.

Contextual information of the qualifications

Annex 6. Contextual information of the qualifications

Bachelor's degree in Physics

	ARM	BG	EE	LV	UK
Level of NQF/ EQF	NQF/EQF level 6	NQF/EQF level 6	NQF/EQF level 6	NQF/EQF level 6	NQF/EQF level 6
Full title of qualification (EN)	Bachelor of Science (Applied Physics)	Educational and qualification degree of Bachelor in Physics	Bachelor of Science (Applied Physics)	Bachelor of Natural Sciences in Physics	Bachelor of Science in Physics
Full title of qualification (national lng)	*Fizikayi bakalavr (fizika)*	*Образователно-квалификационна степен Бакалавър по Физика*	*Loodusteaduse bakalaureus (rakendusfüüsika)*	*Dabaszinātņu bakalaura grāds fizikā*	Bachelor of Science in Physics
Access requirements	*Mijnakarg krtutyan vkajakan* (Certificate of General Secondary Education) or a corresponding qualification	*Диплома за средно образование* (Diploma for Secondary Education)	*Gümnaasiumi lõputunnistus* (Certificate of General Secondary Education) or a corresponding qualification	• Certificate of general secondary education or a Diploma of vocational secondary education • Persons who have completed their secondary education since 2004 are admitted to study programmes on the basis of certain centralised examinations (CE) results • Persons who have completed secondary education starting from 2004 onwards, as well as persons who have completed secondary education abroad, or persons with special needs may be admitted to study programmes on the basis of certain final average grades of the secondary education document • For admission to the study programmes the annual final average grade in certain subjects must be successful (grade not lower than 4 in a 10-point scale)	3 GCE Advanced Levels (with grades of A*A*A, including an A* in Mathematics and an A in Physics) – not including General Studies and Critical thinking; or International Baccalaureate – 39 points overall (7, 6, 6 at high level, including Mathematics and Physics); IELTS 6.5 overall (minimum 6.0 in all elements)

	ARM	BG	EE	LV	UK
Admission requirements	Results of state exams in mathematics and physics Results of school exam in Armenian language are considered as well 20-scale grading system is used and 8 is the min. required	Competitive exam or state matriculation examination in physics, mathematics or chemistry (with different factor – 2,5 or 3) + Grades from the secondary education diploma in physics and mathematics (state matriculation examination or compulsory education)	Results of state examinations in mathematics (min 55 points) and in Estonian language (min 45 points)	• Certificate of general secondary education or a Diploma of vocational secondary education Competition criteria for persons with an obtained secondary education in year 2004 and onwards: • CE in Latvian • CE in physics or CE in mathematics Competition criteria for persons with an obtained secondary education up to year 2004 (not included) as well as persons who have obtained their secondary education abroad and persons with special needs: • final average grade in Latvian and literature • final grade in mathematics (or the average grade of algebra and geometry) or in physics • final average grade in certain study subjects Special conditions: the final physics grade has to be positive (grade not lower than 4 in a 10-point scale) in the secondary education document Preferential claims: 1st to 3rd place winners in national or international physics or mathematics olympiads, or Latvian state student scientific conference in physics or astronomy in the current academic year 1st to 3rd place winners in open physics, mathematics or astronomy olympiad in the current academic year Additional points: LU Young Physics School participants in year 2018 who have acquired a certificate in addition receive 100 points	An interview is required An admissions test may be required to provide additional information for the Admissions tutor
Workload (amount of ECTS credits)	180 ECTS credits	240 ECTS credits	180 ECTS credits	180 ECTS credits	180 ECTS credits (360 CATS)
Mode of study (if relevant)	Full-time	Full-time, part-time	Full-time, part-time	Full-time	Full-time
Profile (academic, professional, binal)	Academic and professional	Academic	Academic and professional	Academic	Academic
Access to further studies	Access to second cycle (master) programmes	Access to second cycle (master) programmes	Access to second cycle (master) programmes	Access to second cycle (master, professional master or second level professional higher education) programmes	Direct access to second cycle (master) programmes, or third cycle (doctoral) programmes – as UK universities are autonomous, they set the entry criteria for their programmes and so they have flexibility in what entrance profiles they accept
Professional rights (if exists)	Not regulated	Not regulated profession Regulated education and training	Not regulated	n.a.	The title of Chartered Physicist is regulated in the UK, but this is a voluntary title with no reserved activities

	ARM	BG	EE	LV	UK
Awarding of qualification					
Requirements for graduation	Thesis: 12 ECTS credits	Final Thesis defence: 10 ECTS credits	Thesis: 6 ECTS credits	• State examination, including the graduation thesis • 180 ECTS credits (full time studies – 3 years (6 semesters))	Year One A student must: • Achieve an aggregate mark of at least 40% in each element • Achieve a mark of 65% in Year 1 Mathematics to take Mathematical Methods in Year 2 Year Two A student must: • Achieve an aggregate mark of at least 40% in each element Year Three A student must: • Achieve an aggregate mark of at least 40% in each element • Attempt a project or essay project (Elective F)
Awarding body:					
• **Name of institution**	Yerevan State University (*Yerevani petakan hamalsaran*)	Sofia University „St. Kliment Ohridski" (*Софийски университет „Св. Климент Охридски"*)	Tallinn University of Technology (*Tallinna Tehnikaülikool*)	University of Latvia (*Latvijas Universitāte*)	Imperial College London
• **Type of institution**	Higher education institution	Higher education institution	Higher education institution	Higher education institution	Higher education institution
Diploma supplement is awarded (Yes/No)	Yes, in Armenian and English	Yes (on request) – European Diploma supplement in Bulgarian and English	Yes, in Estonian. Upon request also in English	Yes	No
Other documents issued (Yes/No) **If yes what title and type**	Transcript	Yes (obligatory) – National Diploma supplement (*Приложение към диплома*) only in Bulgarian language and with compulsory requisites	No	No	No

Master's degree in Psychology

	ARM	BG	EE	LV	UK
Level of NQF/ EQF	NQF/EQF level 7	NQF/EQF level 7	NQF/EQF level 7	NQF/EQF level 7	NQF/EQF level 7
Full title of qualification (EN)	Master of Psychology	Educational and qualification degree of Master in Applied Psychology	Master of Arts in Social Sciences (Psychology)	Professional Master's Degree in Psychology	Master of Science in Psychology
Full title of qualification (national lng)	*Hogebautyan magistros*	*Образователно - квалификационна степен Магистър по Приложна психология*	*Sotsiaalteaduse magister (psüholoogia)*	*Profesionālā maģistra grāds psiholoģijā, Psihologs*	Master of Science in Psychology
Access requirements	Bachelor's degree (*bakalavri orakavorum*) or a corresponding first HE cycle qualification/ Level 7	*Диплома за висше образование – Бакалавър*, 240 ECTS credits, 4 years (Diploma for Higher Education – Bachelor's degree, 240 ECTS credits, 4 years)	*Bakalaureuse kraad* (Bachelor's degree) or a corresponding first cycle qualification	Bachelor's diploma or diploma of second level professional higher education (after at least 4 year full-time studies)	Bachelor (Honours) degree in Psychology or a related discipline, with an Upper Second Classification, or equivalent, with an Upper Second Classification in the final-year research project
Admission requirements	Bachelor's degree (*bakalavri orakavorum*) or a corresponding first cycle of HE qualification	Completed higher education and successfully passed competitive examinations (essay). The rating is formed by the sum of the assessment from the competition examination and the average result of the higher education diploma	First cycle degree in psychology; admission examination in psychology; average grade in Bachelor's programme; interview	Full-time – 3 years (6 semesters) Previous education: Bachelor of Social Sciences in Psychology Formula for calculating the competition score: final average grade (50 x 10 = 500) + entrance exam (1 x 500 = 500). Additional condition: submitting an essay on study motivation and sub-sector selection Eligibility for non-competition registration: 2018/2019 academic year graduates of Bachelor's study programme "Psychology" of the University of Latvia, whose Bachelor's work is not lower than 9 (excellent) and the average grade in bachelor's studies is not lower than 8	800-word personal statement English language qualifications, as per university requirements: https:// www.birmingham.ac.uk /postgraduate/pgt/ requirements-pgt/ international/ index.aspx

	ARM	BG	EE	LV	UK
				Full-time – 2 years (4 semesters) Previous education: Second level professional higher education (or equivalent in higher education system) in psychology Formula for calculating the competition score: final average grade (50 x 10 = 500) + entrance exam (1 x 500 = 500). Additional condition: submitting an essay on study motivation and sub-sector selection Eligibility for non-competition registration: 2018/2019 academic year graduates of the Professional higher education bachelor study programme "Psychology" of the University of Latvia, for which the Bachelor's paper is not lower than 9 (excellent) and the average grade in basic studies is not lower than 8	
Workload (amount of ECTS credits)	120 ECTS credits	120 ECTS credits	120 ECTS credits	120 ECTS credits (2 year studies) 180 ECTS credits (3 year studies)	75 ECTS credits (150 CATS)
Mode of study (if relevant)	Full-time, part-time	Full-time	Full-time, part-time	Full-time	Full-time
Profile (academic, professional, binal)	Academic and professional	Academic	Academic and professional	Professional	Academic
Access to further studies	Access to third cycle (doctoral) programmes	Access to third cycle (doctoral) programmes	Access to third cycle (doctoral) programmes	Access to third cycle (doctoral) programmes	Access to third cycle (doctoral) programmes
Professional rights (if exists)	Not regulated	Not regulated profession Regulated education and training	Not regulated		The title of Practitioner Psychologist is regulated in the UK. Doctoral-level qualifications are required to access this professional title. Therefore, this qualification does not confer professional rights
Awarding of qualification					
Requirements for graduation	Thesis: 12 ECTS credits	State exam/ master's thesis: 15 ECTS credits	Master's thesis: 24 ECTS credits	• State examination, including the graduation thesis • 120 ECTS or 180 ECTS credits	A student must complete a minimum of 30 ECTS credits in Term 1, 15 ECTS credits in Term 2, and 30 ECTS credits in Term 3. This includes the submission of the MSc Research Project
Awarding body:					

	ARM	BG	EE	LV	UK
• **Name of institution**	Yerevan State University (*Yerevani petakan hamalsaran*)	Varna Free University "Chernorizets Hrabar" (*Варнен ски свободен университет „Черноризец Храбър"*)	Tallinn University (*Tallinna Ülikool*)	University of Latvia (*Latvijas Universitāte*)	University of Birmingham
• **Type of institution**	Higher education institution	Higher education institution	Higher education institution	Higher education institution	Higher education institution
Diploma supplement is awarded (Yes/No)	Yes, bilingual DS (Armenian and English)	Yes (on request) – European Diploma supplement in Bulgarian and English	Yes, in Estonian and English	Yes	No
Other documents issued (Yes/ No) If yes what title and type	Transcript	Yes (obligatory) – National Diploma supplement (*Приложение към диплома*) only in Bulgarian language and with compulsory requisites	No	No	No

Master degree in Business Administration

	ARM	BG	EE	LV	UK
Level of NQF/ EQF	NQF/EQF level 7	NQF/EQF level 7	NQF/EQF level 7	NQF/EQF level 7	NQF/EQF level 7
Full title of qualification (EN)	Master in Business Administration	Educational and qualification degree of Master in Business Administration	Master in Business Administration (Marketing and Financial Management	Professional Master's Degree in Business Administration, Head of enterprise/ institution	Master of Business Administration
Full title of qualification (national lng)	*Gortsarar karavaraman magistros*	*Образователно - квалификационна степен Магистър по Бизнес администрация*	*Ärijuhtimise magister (turundus- ja finantsjuhtimine)*	*Profesionālā maģistra grāds uzņēmējdarbības vadībā, Uzņēmumu un iestāžu vadītājs*	Master of Business Administration
Access requirements	Bachelor's degree (*bakalavri orakavorum*) or a corresponding first cycle qualification	*Диплома за висше образование – Бакалавър*, 240 ECTS credits, 4 years (Diploma for Higher Education – Bachelor's degree, 240 ECTS credits, 4 years)	Bakalaureuse kraad (Bachelor's degree) or a corresponding first cycle qualification	Bachelor's diploma or diploma of second level professional higher education (after at least 4 year full-time studies)	Determined on a case-by-case basis Typically, a UK Bachelor's (Honours) degree is required, or equivalent, with at least a Second Class classification
Admission requirements	At least 40 ECTS credits Bachelor's level courses taken in the field of Economics or at least 3 years of work experience in the field	Depending on the professional field of the Bachelor's degree, the candidates should pass a test for economists or non-economists. The final rating is formed as the sum of the following two assessments: • result from the higher education diploma (formed as an arithmetic mean of the average success of the subjects included in the curriculum and the average success of the assessments from the state examinations and /or the defence of the final thesis); • result of the candidate's master's exam	At least 40 ECTS credits Bachelor's level courses taken in the field of economics or at least 3 years of work experience in the field	Bachelor's degree or second level professional higher education, or Master's degree in Economics or in Business Administration Bachelor's or Master's degree or second level professional higher education in other fields of social sciences or related fields: in mathematics, in computer science, in information technologies, physics or in engineering Competition evaluation calculation formula: entrance examination (1 x 1000 = 1000); a Bachelor's degree or a second level professional education in Business Administration or in Economics can apply for competition with the following evaluation calculation formula: weighted average grade (60 x 10 = 600) + finals total (or average) grade (40 x 10 = 400) Additional requirements: 1) work experience of no less than 2 years in fields of business or economics 2) English language proficiency, as evidenced by the results of international English language tests – TOEFL Internet-based at least 80 points, IELTS minimum 5.5 points, CPE any level, CAE any level, FCE – B, PTE General – at least B2, or proof of English proficiency at least B2 level in accordance with the Common European Framework of Reference for Languages, or an English rating in a prior education document (the mark must be no lower than 6 (10-point scale) or "almost good") or an assessment of the entrance examination, except in the case of previous education in English 3) CV	Three years of relevant work experience is required. English language competence is required (with IELTS 6.5 overall, with 6.5 in reading and writing, 6.0 in speaking and listening stated as the acceptable scores)

	ARM	BG	EE	LV	UK
Workload (amount of ECTS credits)	120 ECTS credits	60 ECTS credits for the holders of Bachelor's degree in the same professional field 90 ECTS credits for the holders of Bachelor's degree in other professional fields	120 ECTS credits	120 ECTS credits (2 year studies)	90 ECTS credits (180 CATS)
Mode of study (if relevant)	Full-time, part-time	Full-time	Full-time, part-time	Full-time	Full-time
Profile (academic, professional, binal)	Academic and professional	Academic	Academic and professional	Professional	Academic
Access to further studies	Access to third cycle (doctoral) programmes	Access to third cycle (doctoral) programmes	Access to third cycle (doctoral) programmes	Access to third cycle (doctoral) programmes	Access to third cycle (doctoral) programmes
Professional rights (if exists)	Not regulated	Not regulated profession Regulated education and training	Not regulated		The titles of Chartered Manager and Chartered Management Accountant are regulated in the UK. Access to the professions of manager and accountant are unregulated in the UK and therefore this qualification does not confer professional rights
Awarding of qualification					
Requirements for graduation	Thesis: 12 ECTS credits	State exam/ master's thesis: 15 ECTS credits	Master's thesis or master's examination: 30 ECTS credits	• State examination, including the graduation thesis • 120 ECTS credits	A student must complete a minimum of 80 ECTS credits from the compulsory modules and a minimum of 10 ECTS credits from the optional core modules
Awarding body:					
• **Name of institution**	Yerevan State University (*Yerevani petakan hamalsaran*)	University of National and World Economy (UNWE) (*Университет за Национално и Световно Стопанство, УНСС*) ()	Tallinn University (*Tallinna Ülikool*)	University of Latvia (*Latvijas Universitāte*)	University of Southampton
• **Type of institution**	Higher education institution	Higher education institution	Higher education institution	Higher education institution	Higher education institution

	ARM	BG	EE	LV	UK
Diploma supplement is awarded (Yes/ No)	Yes, both in Armenian and English	Yes (on request) – European Diploma supplement in Bulgarian and English	Yes, in Estonian and English	Yes	Yes
Other documents issued (Yes/ No) **If yes what title and type**	Transcript	Yes (obligatory) – National Diploma supplement (*Приложение към диплома*) only in Bulgarian language and with compulsory requisites	No	No	No

Annex 7.

Completed fiches of the partner countries

Annex 7. Completed fiches of the partner countries

Armenia

Qualification: Fizikai bakalavr (fizika)

Level of NQF/EQF: 6

Country	Armenia
Full title of qualification (EN)	Bachelor of Science (Physics)
Full title of qualification (national language)	*Fizikayi bakalavr (fizika)*
Access requirements	*Mijnakarg krtutyan vkajakan* (Certificate of General Secondary Education) or a corresponding qualification
Admission requirements	Results of state exams in mathematics and physics. Results of school exam in Armenian language are considered as well 20- scale grading system is used and 8 is the min. required
Workload (amount of ECTS credits)	180 ECTS credits
Mode of study (if relevant)	Full-time
Profile (academic, professional) *If relevant, add contextual information*	Academic and professional
Access to further studies	Access to second cycle (master) programmes
Professional rights (if exists)	Not regulated
Awarding of qualification	
• Requirements for graduation	Thesis: 12 ECTS credits
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	Yerevan State University (*Yerevani petakan hamalsaran*) Higher education institution
• Procedure (if relevant)	
• Diploma Supplement (according to model developed by the European Commission, Council of Europe and UNESCO/CEPES) is awarded (Yes/No)	Yes, in Armenian and English
• Other documents issued (Yes/No) ▪ If yes what title and type	Transcript
External quality assurance	
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	Institutional accreditation
• Title of quality assurance body (national, other)	*Masnagitakan krtutyan voraki apahovman azgajin kentron* (ANQA Armenian National Quality Assurance Center)
Learning outcomes	
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	http://www.ysu.am/files/Phys_2018.pdf
• Formulation of learning outcomes (who defines, who approves, ownership)	University defines and the Academic Council approves
• Learning outcomes are subject to quality assurance (Yes/No)	Yes
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	**Knowledge**: Knowledge and understanding **Skills**: Applying knowledge and understanding Communication, ICT and numerical skills Generic cognitive skills (including making judgments) **Competence**: Autonomy and responsibility (including learning skills)

Country	Armenia
• Generic learning outcomes (e.g. national, sectoral)	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 • Demonstrate advanced knowledge and understanding of basic and state of the art concepts, theories and methods within the field of professional work or study • Can apply acquired knowledge and understanding, basic principles and methods of the field for solving problems during the professional work or study • 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. • Can apply ICTs to solve problems and intensify work in the specialty area • Can collect, process, analyse and interpret relevant quantitative and qualitative data within the specialty area to make reasonable judgments • Can analyse and make judgments applying critical thinking, as well as demonstrate creativity to identify and provide different solutions to the problems of the specialty area • Can undertake full fledged professional activity, manage professional functions and projects, and make autonomous decisions • Can manage working team and take on responsibility for the professional activity of its members • Is able to identify one's educational needs and/or career opportunities to decide on the ways of further study • Is able to take personal responsibility for the nation and the State, follow up the realisation of democratic principles and dissemination of national and human values
• Learning outcomes (as defined by qualification provider or awarding body)	A Bachelor's degree is awarded to individuals who have knowledge and skills in a comprehensive and coordinated set of fields for making professional work and/or continuing education. • Demonstrate knowledge and understanding of basic mathematics and related subjects (including mathematical methods for physics; computing; numerical analysis) • Demonstrate knowledge and understanding of general physics (introduction to physics: classical mechanics, molecular physics, electricity and magnetism, optics, atomic and nuclear physics) and astrophysics • Demonstrate knowledge and understanding of experimental methods (development of measurement methods and instrumentation, measurement theory and treatment of experimental errors) • Demonstrates knowledge and understanding of basic elements in theoretical physics (analytical mechanics, classical electromagnetism and relativity, quantum mechanics, statistical physics and thermodynamics) • Demonstrate knowledge of modern educational technologies in physics • Demonstrate knowledge of elements of applied and modern physics (microwave physics, micro and nanoelectronics, material science, laser physics, etc.) • Capable to analyse the basic experimental facts of physics • Able to solve main problems in the framework of classical and quantum physics
Any other relevant information regarding the qualification	

Qualification: Hogebanutyan magistros

Level of NQF/EQF: 7

Country	Armenia
Full title of qualification (EN)	Master of Psychology
Full title of qualification (national language)	*Hogebautyan magistros*
Access requirements	Bachelor degree (*bakalavri orakavorum*) or a corresponding first HE cycle qualification/Level 7
Admission requirements	Bachelor degree (*bakalavri orakavorum*) or a corresponding first cycle of HE qualification
Workload (amount of ECTS credits)	120 ECTS credits
Mode of study (if relevant)	Full-time, part-time

Country	Armenia
Profile (academic, professional) *If relevant, add contextual information*	Academic and professional
Access to further studies	Access to third cycle (doctoral) programmes
Professional rights (if exists)	Not regulated
Awarding of qualification	
• Requirements for graduation	Thesis: 12 ECTS credits
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	Yerevan State University (*Yerevani petakan hamalsaran*) Higher education institution
• Procedure (if relevant)	
• Diploma Supplement (according to model developed by the European Commission, Council of Europe and UNESCO/CEPES) is awarded (Yes/No)	Yes, bilingual DS (Armenian and English) together with transcript
• Other documents issued (Yes/No) ▪ If yes what title and type	Transcript
External quality assurance	
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	Institutional accreditation (compulsory)
• Title of quality assurance body (national, other)	*Masnagitakan krtutyan voraki apahovman azgajin kentron* (ANQA)
Learning outcomes	
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	http://www.ysu.am/education/Archive/Full-Time/2018/Pil_hogeb_2018.pdf
• Formulation of learning outcomes (who defines, who approves, ownership)	Higher education institution
• Learning outcomes are subject to quality assurance (Yes/No)	Yes
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	**Knowledge**: Knowledge and understanding **Skills:** Applying knowledge and understanding Communication, ICT and numerical skills Generic cognitive skills (including making judgments) **Competence**: Autonomy and responsibility (including learning skills)

Country	Armenia
• Generic learning outcomes (e.g. national, sectoral)	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 • Demonstrates profound professional knowledge, including on the recent achievements of the field, which applies for study, work and research • Demonstrates deep understanding of theories, advanced concepts and methods of the given specialty and at the interface between different fields • 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 • Can use professional communication means to communicate clearly and coherently one's conclusions, respective arguments and research results to the broad specialists and others • Can apply ICTs thoroughly to solve new complex problems and to support conducting research in the specialty area and/or related intersecting fields • 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 • 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 • 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 • Can create and manage professional or research team and take on lead responsibility for the professional advancement of its members • Is able to evaluate one's demand for continuous study and needs for professional development to continue education in different environments • Is able to promote the development of civic society and combine national value system with common human values
• Learning outcomes (as defined by qualification provider or awarding body)	Upon successful completion of the programme students will have wide theoretical knowledge and practical skills in psychology • Describe mental health standards and their classification • Define neurotic and psychotic levels of person's pathology • Present different directions of psychotherapy, fundamental and methods • Apply clinical tests for diagnostics • Able to carry experimental assessment of mental functions • Interpret psychoanalytic and other psychology knowledge • To explain neurotology mechanisms, diagnostic peculiarities, organic syndromes • Able to use various sources of clinical psychology and psychotherapy (internet resources, e-libraries, professional books, and scientific articles) • Able to analyse the existing problems of medical psychology and psychotherapy and to propose possible ways for their solution • Prepare reports, conduct and present research findings, carry scientific debates
Any other relevant information regarding the qualification	

Qualification: Gortsarar karavaraman magistros

Level of NQF/EQF: 7

Country	Armenia
Full title of qualification (EN)	*Gortsarar karavaraman magistros*
Full title of qualification (national language)	Master in Business Administration
Access requirements	Bachelor degree (*bakalavri orakavorum*) or a corresponding first cycle qualification
Admission requirements	At least 40 ECTS credits bachelor level courses taken in the field of economics or at least 3 years of work experience in the field
Workload (amount of ECTS credits)	120 ECTS credits
Mode of study (if relevant)	Full-time, part-time
Profile (academic, professional) *If relevant, add contextual information*	Academic and professional
Access to further studies	Access to third cycle (doctoral) programmes

Country	Armenia
Professional rights (if exists)	Not regulated
Awarding of qualification	
• Requirements for graduation	Thesis: 12 ECTS credits
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	Yerevan State University (*Yerevani petakan hamalsaran*) Higher education institution
• Procedure (if relevant)	
• Diploma Supplement (according to model developed by the European Commission, Council of Europe and UNESCO/CEPES) is awarded (Yes/No)	Yes, both in Armenian and English
• Other documents issued (Yes/No) ▪ If yes what title and type	Transcript
External quality assurance	
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	Institutional accreditation
• Title of quality assurance body (national, other)	*Masnagitakan krtutyan voraki apahovman azgajin kentron* (ANQA National Quality Assurance Agency)
Learning outcomes	
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	http://www.ysu.am/files/Tntes_2018.pdf
• Formulation of learning outcomes (who defines, who approves, ownership)	Higher education institution
• Learning outcomes are subject to quality assurance (Yes/No)	Yes
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	**Knowledge**: Knowledge and understanding **Skills**: Applying knowledge and understanding Communication, ICT and numerical skills Generic cognitive skills (including making judgments) **Competence**: Autonomy and responsibility (including learning skills)

Country	Armenia
• Generic learning outcomes (e.g. national, sectoral)	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 • Demonstrates profound professional knowledge, including on the recent achievements of the field, which applies for study, work and research • Demonstrates deep understanding of theories, advanced concepts and methods of the given specialty and at the interface between different fields • 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 • Can use professional communication means to communicate clearly and coherently one's conclusions, respective arguments and research results to the broad specialists and others • Can apply ICTs thoroughly to solve new complex problems and to support conducting research in the speciality area and/or related intersecting fields • 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 • 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 • 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 • Can create and manage professional or research team and take on lead responsibility for the professional advancement of its members • Is able to evaluate one's demand for continuous study and needs for professional development to continue education in different environments • Is able to promote the development of civic society and combine national value system with common human values
• Learning outcomes (as defined by qualification provider or awarding body)	• Upon successful completion of the programme students will have wide knowledge in economics and management disciplines • Able to present quality and risk management principles of general structures according to ISO 9001-2015 • Discuss strategical and financial management of an organisation in terms of resources, technological developments • Able to classify management decisions, planning and implementation of activities in the framework of changing environment • Able to classify marketing and innovation problems • Able to develop marketing strategies for evaluation of staff and corporative management • Construct organisational quality management system and management models • Able to develop data base for effective budget and business management • Able to take effective management decisions based on various marketing strategies and financial tools • Able to use different information sources including internet, libraries, scientific papers, etc. • Knows how to solve problems and evaluate resources for their solution • Knows how effectively plan time and other resources • Knows how to prepare reports, present results of scientific research
Any other relevant information regarding the qualification	

Bulgaria

Qualification: Образователно-квалификационна степен Бакалавър по Физика

Level of NQF/EQF: 6

Country	Bulgaria
Full title of qualification (EN)	Educational and qualification degree of Bachelor in Physics
Full title of qualification (national lng)	*Образователно-квалификационна степен Бакалавър по Физика*
Access requirements	*Диплома за средно образование* (Diploma for Secondary Education)
Admission requirements	Competitive exam or state matriculation examination in Physics, Mathematics or Chemistry (with different factor – 2.5 or 3) + Grades from the secondary education diploma in Physics and Mathematics (state matriculation examination or compulsory education)
Workload (amount of ECTS credits)	240 ECTS credits
Mode of study (if relevant)	Full-time, part-time
Profile (academic, professional) *If relevant, add contextual information*	Academic and professional
Access to further studies	Access to second cycle (master) programmes
Professional rights (if exists)	Not regulated profession Regulated education and training
Awarding of qualification	
• Requirements for graduation	Final thesis defence: 10 ECTS credits
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	Sofia University "St. Kliment Ohridski" (*Софийски университет „Св. Климент Охридски"*) • Higher education institution
• Procedure (if relevant)	
• Diploma Supplement (according to model developed by the European Commission, Council of Europe and UNESCO/ CEPES) is awarded (Yes/No)	Yes (on request) – European Diploma supplement in Bulgarian and English
• Other documents issued (Yes/No) ▪ If yes what title and type	Yes (obligatory) – National Diploma supplement (*Приложение към диплома*) only in Bulgarian language and with compulsory requisites
External quality assurance	
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	Institutional and programme accreditation
• Title of quality assurance body (national, other)	National Evaluation and Accreditation Agency, NEAA (*Национална агенция за оценяване и акредитация*, НАОА)
Learning outcomes	
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	https://www.uni-sofia.bg/index.php/bul/universitet_t/fakulteti/fizicheski_fakultet2 https://www.uni-sofia.bg/index.php/bul/universitet_t/fakulteti/fizicheski_fakultet2/priem/bakalav_rska_stepen/fizicheski_fakultet/fizika/kvalifikacionna_harakteristika
• Formulation of learning outcomes (who defines, who approves, ownership)	University on the basis of NQF and QF-EHEA
• Learning outcomes are subject to quality assurance (Yes/No)	Yes

Country	Bulgaria
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	
• Generic learning outcomes (e.g. national, sectoral)	**National learning outcomes** **Knowledge** • Has extensive and in-depth theoretical and factual knowledge in a field of study, including knowledge relating to the latest achievements • Interprets the acquired knowledge independently, relating it to facts and critical perception, comprehension and formulation of theories and principles **Skills** • Able to use methods and means which allow for the accomplishment of complex tasks • Applies logical thinking, shows creativity and takes novel approaches in carrying out unconventional tasks **Competencies, Autonomy and Responsibility** • Possesses a capability for administrative management of complex professional activities, including teams and resources • Assumes responsibility for taking decisions in adverse circumstances under the influence of a variety of interacting factors which are hard to foresee • Shows creativity and initiative in management • Recognises the need for staff training with the purpose of increasing staff effectiveness **Learning Competences** • Assesses one's own qualifications properly by evaluating the knowledge and skills acquired so far, recognising the need for expanding and updating one's own professional qualifications **Communicative and Social Competences** • Clear formulation and expression of ideas, problems and solutions before experts and non-experts • Expresses an opinion and shows understanding of issues, using methods based on qualitative and quantitative descriptions and evaluation • Has a broad outlook on life and shows understanding and solidarity towards others • Can communicate effectively in some of the most commonly used European languages **Professional Competences** • Gathers, classifies, assesses and interprets data in a field of study to fulfil specific tasks • Applies the acquired knowledge and skills in new and unfamiliar contexts • Capable of making analyses in broader or interdisciplinary contexts • Adopts new strategic approaches; formulates and expresses own opinion about social and ethical issues arising during work
• Learning outcomes (as defined by qualification provider or awarding body)	**Knowledge, skills and competencies including**: • To conduct theoretical and experimental research in the field of fundamental and applied physics as well as in those fields of other sciences for which the methodology and means of physics are needed • To develop methods and tools for research, measurement and control in scientific and production laboratories • To develop the physics foundations of new technologies and systems; • To perform measurements of the physics constants of the substance characteristics and parameters of appliances and devices • To use physics methods for analysing the substance • To carry out observations of objects in space, atmosphere, hydrosphere and earth crust • To use modern computing equipment to process measurement results • To conduct surveys, expertise, forecasts and to develop guidelines for the prospective development of branches of science, production and environment based on physical phenomena • To perform teaching in the different branches of physics, astronomy, meteorology, mathematics
Any other relevant information regarding the qualification	

Qualification: Образователно-квалификационна степен Магистър по Приложна психология

Level of NQF/EQF: 7

Country	Bulgaria
Full title of qualification (EN)	Educational and qualification degree of Master in Applied Psychology
Full title of qualification (national lng)	*Образователно-квалификационна степен Магистър по Приложна психология*
Access requirements	*Диплома за висше образование – Бакалавър*, 240 ECTS credits, 4 years (Diploma for Higher Education – Bachelor's degree, 240 ECTS credits, 4 years)
Admission requirements	Completed higher education and successfully passed competitive examinations (essay) The rating is formed by the sum of the assessment from the competition examination and the average result of the higher education diploma
Workload (amount of ECTS credits)	120 ECTS credits
Mode of study (if relevant)	Full-time
Profile (academic, professional) *If relevant, add contextual information*	Academic and professional
Access to further studies	Access to third cycle (doctoral) programmes
Professional rights (if exists)	Non-regulated profession Regulated education and training
Awarding of qualification	
• Requirements for graduation	State exam/ master's thesis: 15 ECTS credits
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	Varna Free University "Chernorizets Hrabar" (*Варненски свободен университет „Черноризец Храбър"*) Higher education institution
• Procedure (if relevant)	
• Diploma Supplement (according to model developed by the European Commission, Council of Europe and UNESCO/CEPES) is awarded (Yes/No)	Yes (on request) – European Diploma supplement in Bulgarian and English
• Other documents issued (Yes/No) ▪ If yes what title and type	Yes (obligatory) – National Diploma supplement (*Приложение към диплома*) only in Bulgarian language and with compulsory requisites
External quality assurance	
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	Institutional and programme accreditation
• Title of quality assurance body (national, other)	National Evaluation and Accreditation Agency, NEAA (*Национална агенция за оценяване и акредитация*, НАОА)
Learning outcomes	
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	http://ksp.vfu.bg/magistar/specialnosti/51 http://www.vfu.bg/ects-guide/приложна-психология.html
• Formulation of learning outcomes (who defines, who approves, ownership)	University on the basis of NQF and QF-EHEA
• Learning outcomes are subject to quality assurance (Yes/No)	Yes

Country	Bulgaria
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	
• Generic learning outcomes (e.g. national, sectoral)	**National learning outcomes** **Knowledge** • Has a wide spectrum of theoretical and practical knowledge, part of which is specialised knowledge in the respective field, which serves to broaden the knowledge acquired during the previous education stage • Knows and expresses theories, concepts, principles and observation of certain laws • Has highly specialised practical and theoretical knowledge, incl. avant-garde knowledge, which serves as a basis for originality in developing and applying new ideas and solutions • Demonstrates critical understanding of the knowledge in the field of study and interdisciplinary relationships **Skills** • Has a wide range of practical and cognitive skills in different fields of study required to understand abstract problems and develop creative solutions • Carries out problem diagnostics • Carries out problem diagnostics and solving, based on contemporary research through integrating knowledge from new or interdisciplinary fields, which are related to implementation of research and introduction of innovations • Makes an adequate assessment of situations with insufficient or limited data and unpredictability • Develops new and various skills as a response to emerging knowledge and practices • Freely employs innovative methods and instruments in solving complicated and unpredictable problems in a specialised field of work • Finds and supports arguments in solving interdisciplinary problems • Shows initiative in a field of work and study in complex unpredictable contexts which required finding solutions to problems with a number of interacting factors **Competences, Autonomy and Responsibility** • Can build administrative and organisational structures, independently manage teams to find solutions to complex problems in unpredictable contexts with a variety of interacting factors and possibilities • Demonstrates operational mastery in managing change in complex contexts • Shows creativity and innovation in projects development • Initiates processes and organises activities which require very good coordination • Formulates policies and demonstrates leadership skills for their implementation
	Learning Competences • Systematically and thoroughly evaluates one's own knowledge, recognising the need for acquiring more knowledge • professional and/or specialised contexts • Ability to solve problems by integrating comprehensive sources in unfamiliar contexts with insufficient information • Can initiate changes and manage development processes in difficult contexts • Becomes involved in important scientific, social and moral problems arising during work or study processes • Demonstrates a high degree of autonomy, easily orients oneself to complex educational content, adopting own approaches and methods to master it • Uses a variety of methods and techniques to master complex subject areas • Has a rich conceptual apparatus and is capable of conceptual and abstract thinking **Communicative and Social Competences** • Can express one's own opinion in a simple and clear way, formulates problems and proposes possible solutions before expert and non-expert audiences, using a large number of techniques and approaches • Develops and presents well-argumented opinions about social processes and practices, making justified proposals for their improvement or change • Can communicate effectively in some of the most commonly used European languages **Professional Competences** • Gathers, processes and interprets specialised information required to find solutions to complex problems in a field of study • Integrates a wide spectrum of knowledge and sources in new and relatively unfamiliar contexts • Make reasonable evaluations and finds solutions in complex interactional contexts • Demonstrates adequate behaviour and interaction in professional and/or specialised contexts • Ability to solve problems by integrating comprehensive sources in unfamiliar contexts with insufficient information • Can initiate changes and manage development processes in difficult contexts • Becomes involved in important scientific, social and moral problems arising during work or study processes

Country	Bulgaria
• Learning outcomes (as defined by qualification provider or awarding body)	**Knowledge, skills and competencies, including**: • To interpret, comment and provide critical theoretical analysis of leading ideas in specific thematic areas of classical and contemporary psychology of life-path development • To know the theoretical essence and the practical possibilities of the main psycho-consultative and psychotherapeutic approaches • To define independently a research problem, formulate hypotheses, conduct empirical studies, analyse and interpret empirical results on their own research projects • To be able to select an adequate set of research tools to solve a specific research problem and develop their own methodologies • To have the necessary skills for diagnosis, assessment, psycho-conscious and psycho-corrective work with individuals with normal, hampered or impaired development at individual and group level • To know the limits of applicability of psychological intervention and be able to formulate and implement an appropriate intervention strategy or direct the client to specialists from other fields depending on the specificity of the particular case • Be able to conduct individual scientific research
Any other relevant information regarding the qualification	

Qualification: Образователно-квалификационна степен Магистър по Бизнес администрация

Level of NQF/EQF: 7

Country	Bulgaria
Full title of qualification (EN)	Educational and qualification degree of Master in Business Administration
Full title of qualification (national lng)	*Образователно-квалификационна степен Магистър по Бизнес администрация*
Access requirements	*Диплома за висше образование – Бакалавър*, 240 ECTS credits, 4 years (Diploma for Higher Education – Bachelor's degree, 240 ECTS credits, 4 years)
Admission requirements	Depending on the professional field of the Bachelor's degree, the candidates should pass a test for economists or non-economists. The final rating is formed as the sum of the following two assessments: - result from the higher education diploma (formed as an arithmetic mean of the average success of the subjects included in the curriculum and the average success of the assessments from the state examinations and/or the defence of the final thesis) result of the candidate's master's exam
Workload (amount of ECTS credits)	60 ECTS credits for the holders of Bachelor's degree in the same professional field 90 ECTS credits for the holders of Bachelor's degree in other professional fields
Mode of study (if relevant)	Full-time
Profile (academic, professional) *If relevant, add contextual information*	Academic and professional
Access to further studies	Access to third cycle (doctoral) programmes
Professional rights (if exists)	Not regulated profession Regulated education and training
Awarding of qualification	
• Requirements for graduation	State exam/ master thesis: 15 ECTS credits
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	University of National and World Economy (UNWE) (*Университет за Национално и Световно Стопанство, УНСС*) Higher education institution
• Procedure (if relevant)	
• Diploma Supplement (according to model developed by the European Commission, Council of Europe and UNESCO/ CEPES) is awarded (Yes/ No)	Yes (on request) – European Diploma Supplement in Bulgarian and English
• Other documents issued (Yes/No) ▪ If yes what title and type	Yes (obligatory) – National Diploma supplement (*Приложение към диплома*) only in Bulgarian language and with compulsory requisites
External quality assurance	
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	Institutional and programme accreditation
• Title of quality assurance body (national, other)	National Evaluation and Accreditation Agency, NEAA (*Национална агенция за оценяване и акредитация*, НАОА)
Learning outcomes	

Country	Bulgaria
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	https://www.unwe.bg/bg https://www.unwe.bg/bg/pages/...
• Formulation of learning outcomes (who defines, who approves, ownership)	University on the basis of NQF and QF-EHEA
• Learning outcomes are subject to quality assurance (Yes/No)	Yes
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	
• Generic learning outcomes (e.g. national, sectoral)	**National learning outcomes** **Knowledge** • Has a wide spectrum of theoretical and practical knowledge, part of which is specialised knowledge in the respective field, which serves to broaden the knowledge acquired during the previous education stage • Knows and expresses theories, concepts, principles and observation of certain laws • Has highly specialised practical and theoretical knowledge, incl. avant-garde knowledge, which serves as a basis for originality in developing and applying new ideas and solutions • Demonstrates critical understanding of the knowledge in the field of study and interdisciplinary relationships **Skills** • Has a wide range of practical and cognitive skills in different fields of study required to understand abstract problems and develop creative solutions • Carries out problem diagnostics • Carries out problem diagnostics and solving, based on contemporary research through integrating knowledge from new or interdisciplinary fields, which are related to implementation of research and introduction of innovations • Makes an adequate assessment of situations with insufficient or limited data and unpredictability • Develops new and various skills as a response to emerging knowledge and practices • Freely employs innovative methods and instruments in solving complicated and unpredictable problems in a specialised field of work • Finds and supports arguments in solving interdisciplinary problems • Shows initiative in a field of work and study in complex unpredictable contexts which required finding solutions to problems with a number of interacting factors
	Competencies, Autonomy and Responsibility • Can build administrative and organisational structures, independently manage teams to find solutions to complex problems in unpredictable contexts with a variety of interacting factors and possibilities • Demonstrates operational mastery in managing change in complex contexts • Shows creativity and innovation in projects development • Initiates processes and organises activities which require very good coordination • Formulates policies and demonstrates leadership skills for their implementation

Country	Bulgaria
	Learning Competences • Systematically and thoroughly evaluates one's own knowledge, recognising the need for acquiring more knowledge • Demonstrates a high degree of autonomy, easily orients oneself to complex educational content, adopting own approaches and methods to master it • Uses a variety of methods and techniques to master complex subject areas • Has a rich conceptual apparatus and is capable of conceptual and abstract thinking **Communicative and Social Competences** • Can express one's own opinion in a simple and clear way, formulates problems and proposes possible solutions before expert and non-expert audiences, using a large number of techniques and approaches • Develops and presents well-argumented opinions about social processes and practices, making justified proposals for their improvement or change • Can communicate effectively in some of the most commonly used European languages **Professional Competences** • Gathers, processes and interprets specialised information required to find solutions to complex problems in a field of study • Integrates a wide spectrum of knowledge and sources in new and relatively unfamiliar contexts • Make reasonable evaluations and finds solutions in complex interactional contexts • Demonstrates adequate behaviour and interaction in professional and/or specialised contexts • Ability to solve problems by integrating comprehensive sources in unfamiliar contexts with insufficient information
• Learning outcomes (as defined by qualification provider or awarding body)	**Knowledge, skills and competencies on**: • Theoretical foundations and basic principles for forming/building the economic and administrative management practice • Methodological foundations of organisational development and their resulting methods of organising, designing, preparation, making of decisions and working with people in the organisation • Modern entrepreneurship, progressive management technologies and the use of new IT tools for support of business leadership • Modelling, forecasting, strategic management and financial models in management for the purposes of targeted market and innovation research • Diagnostics and counselling on issues concerning the organisational and economic status of companies, to reveal and to get over problematic situations and create favourable socio-psychological climate in organisations • Solving the problems arising in the economic management as a result of the influence of the business environment of the business organisations
Any other relevant information regarding the qualification	

Estonia

Qualification: Loodusteaduse bakalaureus (rakendusfüüsika)

Level of NQF/EQF: 6

Country	Estonia
Full title of qualification (EN)	Bachelor of Science (Applied Physics)
Full title of qualification (national lng)	*Loodusteaduse bakalaureus (rakendusfüüsika)*
Access requirements	*Gümnaasiumi lõputunnistus* (Certificate of General Secondary Education) or a corresponding qualification
Admission requirements	Results of state examinations in Mathematics (min 55 points) and in Estonian language (min 45 points)
Workload (amount of ECTS credits)	180 ECTS credits
Mode of study (if relevant)	Full-time, part-time
Profile (academic, professional) *If relevant, add contextual information*	Academic and professional
Access to further studies	Access to second cycle (master) programmes
Professional rights (if exists)	Not regulated
Awarding of qualification	
• Requirements for graduation	Thesis: 6 ECTS credits
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	Tallinn University of Technology (*Tallinna Tehnikaülikool*) Higher education institution
• Procedure (if relevant)	
• Diploma Supplement (according to model developed by the European Commission, Council of Europe and UNESCO/CEPES) is awarded (Yes/No)	Yes, in Estonian. Upon request also in English
• Other documents issued (Yes/No) ▪ If yes what title and type	No
External quality assurance	
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	Programme group accreditation
• Title of quality assurance body (national, other)	EKKA Quality Assessment Council for Higher Education (*EKKA Kõrghariduse hindamisnõukogu*)
Learning outcomes	
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	https://ois.ttu.ee/pls/portal/ois2.ois_public.main
• Formulation of learning outcomes (who defines, who approves, ownership)	University
• Learning outcomes are subject to quality assurance (Yes/No)	Yes
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	

Country	Estonia
• Generic learning outcomes (e.g. national, sectoral)	In order to be awarded a *bakalaureusekraad*, a student shall: • Have a systematic overview of the basic concepts, theoretical principles and research methods of the field of study • Be able to identify interdisciplinary relationships • Understand the scopes of application of different profiles of the field of study • Know the theoretical schools, development trends and current problems of the field of study • Be able to formulate problems relating to the field of study and to analyse and evaluate different solutions • Be able to collect information independently by using appropriate methods and means and to interpret it critically and creatively • Be able to select and use appropriate technologies and methods when solving problems of the field of study, and, among other things, be willing to participate in team work and lead it • Have command of the communication skills and information and communication technologies necessary for work • Be able to explain orally or in written form in the language of instruction and in at least one foreign language problems relating to the field of study, and to participate in professional discussions • Be willing to actively participate in the civil society and demonstrate tolerance towards diversity of attitudes and values • Be able to evaluate the role of knowledge and the role and consequences of his or her professional activities in society, with consideration of scientific, social and ethical aspects • Be able to apply the acquired knowledge and skills in work, to continue studies and to undertake continuous independent professional development
• Learning outcomes (as defined by qualification provider or awarding body)	The student who has passed the programme: • Has a systematic knowledge of physical sciences • Is able to formulate problems in his/her specialty, and able to find, analyse and use the information for solving those problems • Within his/her specialty: knows the terminology, can explain problems and take part in professional discussions, both in Estonian and English, both orally and in writing • Owns communication skills for teamwork, knows the fundamental concepts of project management and entrepreneurship • Is able to use measuring instruments and methods of measurement • Is able to analyse big data and knows the operational principles of the data infrastructure • Has experience in modelling natural, technological and social processes
Any other relevant information regarding the qualification	

Qualification: Sotsiaalteaduse magister

Level of NQF/EQF: 7

Country	Estonia
Full title of qualification (EN)	Master of Arts in Social Sciences (Psychology)
Full title of qualification (national lng)	*Sotsiaalteaduse magister (psüholoogia)*
Access requirements	*Bakalaureuse kraad* (Bachelor's degree) or a corresponding first cycle qualification
Admission requirements	First cycle degree in Psychology; admission examination in Psychology; average grade in bachelor programme; interview
Workload (amount of ECTS credits)	120 ECTS credits
Mode of study (if relevant)	Full-time, part-time
Profile (academic, professional) *If relevant, add contextual information*	Academic and professional
Access to further studies	Access to third cycle (doctoral) programmes
Professional rights (if exists)	Not regulated
Awarding of qualification	
• Requirements for graduation	Master's thesis: 24 ECTS credits
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	Tallinn University (*Tallinna Ülikool*) Higher education institution
• Procedure (if relevant)	
• Diploma Supplement is awarded (according to model developed by the European Commission, Council of Europe and UNESCO/ CEPES) is awarded (Yes/No)	Yes, in Estonian and English
• Other documents issued (Yes/No) ▪ If yes what title and type	No
External quality assurance	
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	Programme group accreditation
• Title of quality assurance body (national, other)	EKKA Quality Assessment Council for Higher Education (*EKKA Kõrghariduse hindamisnõukogu*)
Learning outcomes	
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	https://ois2.tlu.ee/tluois/uus_ois2.tud_leht

Country	Estonia
• Formulation of learning outcomes (who defines, who approves, ownership)	Higher education institution
• Learning outcomes are subject to quality assurance (Yes/No)	Yes
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	
• Generic learning outcomes (e.g. national, sectoral)	In order to be awarded a *magistrikraad* and a degree awarded upon completion of the integrated Bachelor and Master programmes, a student shall: • Have systematic overview and broad knowledge of concepts, theories and research methods of the field of study • Know the theoretical development trends, current problems and potential applications in the field of study • Have in depth-knowledge in a narrower research field of the field of research • Be able to identify and create interdisciplinary connections • Be able to independently and creatively identify and formulate problems and/or research questions related to the field of study and be able to solve them with appropriate measures within given timeframes and within limited information, using of knowledge of other fields as necessary • Be able to select and use appropriate methods and technologies when solving problems of the field of study, and to model and/or assess the potential results • Be able to critically evaluate his or her activities when solving problems and/or research questions in the field of study • Be prepared to work in an area of activity requiring professional qualifications, showing initiative, responsibility, leadership and teamwork skills • Be able to hand down with competence his or her knowledge by teaching, instruction or in another manner • Be able to present and reason orally or in written form in the language of instruction and a foreign language essential for his or her field of study the problems relating to the field of study, conclusions and the underlying theories, and to participate in relevant discussions of both corresponding specialists and non-specialists • Be willing to actively participate in the civil society and demonstrate tolerance towards diversity of attitudes and values • Be able to act ethically in complex situations, be aware of the ethical aspects, possibilities, restrictions and social role of his or her activities and be able to provide reasoned assessment in issues concerning his or her field of study • Be able to evaluate his or her need, and the need of others, of continuing education and professional development, and have command of effective methods necessary for independent study • Be able to continue studies or participate in research, act as a specialist or developer in his or her field, including internationally
• Learning outcomes (as defined by qualification provider or awarding body)	• Has knowledge of the main theories, models and methods of psychology, thorough knowledge of modern directions in counselling, school- or organisational psychology • Is able to critically evaluate and analyse psychological theories, results of studies and their methodological correctness • Is able to apply acquired knowledge in professional work, ability to plan and critically analyse one's work • Is able to work in the position of a psychologist, counsellor and other psychological aid provider or academic position • Is able to participate in professional discussions and use specific professional knowledge also in the broader societal context • Is able to evaluate the need for self-education and for continuing toward professional development (in the doctorate programme of psychology)
Any other relevant information regarding the qualification	

Qualification: Ärijuhtimise magister

Level of NQF/EQF: 7

Country	Estonia
Full title of qualification (EN)	*Ärijuhtimise magister (turundus- ja finantsjuhtimine)*
Full title of qualification (national lng)	Master in Business Administration (Marketing and Financial Management)
Access requirements	*Bakalaureuse kraad* (Bachelor's degree) or a corresponding first cycle qualification
Admission requirements	At least 40 ECTS credits bachelor level courses taken in the field of Economics or at least 3 years of work experience in the field
Workload (amount of ECTS credits)	120 ECTS credits
Mode of study (if relevant)	Full-time, part-time
Profile (academic, professional) *If relevant, add contextual information*	Academic and professional
Access to further studies	Access to third cycle (doctoral) programmes
Professional rights (if exists)	Not regulated
Awarding of qualification	
• Requirements for graduation	Master's thesis or master's examination: 30 ECTS credits
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	Tallinn University (*Tallinna Ülikool*) Higher education institution
• Procedure (if relevant)	
• Diploma Supplement is awarded (according to model developed by the European Commission, Council of Europe and UNESCO/CEPES) is awarded (Yes/No)	Yes, in Estonian and English
• Other documents issued (Yes/No) ▪ If yes what title and type	No
External quality assurance	
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	Programme group accreditation
• Title of quality assurance body (national, other)	EKKA Quality Assessment Council for Higher Education (*EKKA Kõrghariduse hindamisnõukogu*)
Learning outcomes	
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	www.is.ut.ee/pls/ois/%21tere.tulemast?leht=OK.OK.VA&sessioon=0&id_oppekava=414
• Formulation of learning outcomes (who defines, who approves, ownership)	Higher education institution
• Learning outcomes are subject to quality assurance (Yes/No)	Yes

Country	Estonia
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	
• Generic learning outcomes (e.g. national, sectoral)	In order to be awarded *magistrikraad* and a degree awarded upon completion of the integrated bachelor and master programmes, a student shall: • Have systematic overview and broad knowledge of concepts, theories and research methods of the field of study • Know the theoretical development trends, current problems and potential applications in the field of study • Have in depth-knowledge in a narrower research field of the field of research • Be able to identify and create interdisciplinary connections • Be able to independently and creatively identify and formulate problems and /or research questions related to the field of study and be able to solve them with appropriate measures within given timeframes and within limited information, using of knowledge of other fields as necessary • Be able to select and use appropriate methods and technologies when solving problems in the field of study, and to model and/or assess the potential results • Be able to critically evaluate his or her activities when solving problems and/or research questions in the field of study • Be prepared to work in an area of activity requiring professional qualifications, showing initiative, responsibility, leadership and teamwork skills • Be able to hand down with competence his or her knowledge by teaching, instruction or in another manner • Be able to present and reason orally or in written form in the language of instruction and a foreign language essential for his or her field of study the problems relating to the field of study, conclusions and the underlying theories, and to participate in relevant discussions of both corresponding specialists and non-specialists • Be willing to actively participate in the civil society and demonstrate tolerance towards diversity of attitudes and values • Be able to act ethically in complex situations, be aware of the ethical aspects, possibilities, restrictions and social role of his or her activities and be able to provide reasoned assessment in issues concerning his or her field of study • Be able to evaluate his or her need, and the need of others, of continuing education and professional development, and have command of effective methods necessary for independent study • Be able to continue studies or participate in research, act as a specialist or developer in his or her field, including internationally
• Learning outcomes (as defined by qualification provider or awarding body)	Student who has passed the programme: • Acquires systematic understanding and wide range knowledge in economics and management disciplines, and has gained deep knowledge in the selected field (management and marketing, finance management, organisational behaviour, public economics and management or service design and management) • Can formulate and analyse economic situations of organisation and can analyse problems of organisational direction from the perspectives of different management concepts • Knows categories and terminology used in economics and management sciences • Knows contemporary theories and developmental trends of management and marketing and financial management • Knows the main issues of public sector economics and finance and understands its relations to economics • Understands the theoretical approaches of economic policy • Has acquired relevant tools for working at managerial or high level specialist positions in private and public sector • Has gained experience in scientific research
Any other relevant information regarding the qualification	

Latvia

Qualification: Dabaszinātņu bakalaura grāds fizikā (University of Latvia)

Level of NQF/EQF: 6/6

Country	Latvia
Full title of qualification (EN)	Bachelor of Natural Sciences in Physics
Full title of qualification (national lng)	*Dabaszinātņu bakalaura grāds fizikā*
Access requirements	• Certificate of general secondary education or a Diploma of vocational secondary education. • Persons who have completed their secondary education since 2004 are admitted to study programmes on the basis of certain centralised examinations (CE) results • Persons who have completed secondary education starting from 2004 onwards, as well as persons who have completed secondary education abroad, or persons with special needs may be admitted to study programmes on the basis of certain final average grades of the secondary education document • For admission to the study programmes the annual final average grade in certain subjects must be successful (grade not lower than 4 in a 10-point scale)
Admission requirements	• Certificate of general secondary education or a Diploma of vocational secondary education **Competition criteria for persons with an obtained secondary education in year 2004 and onwards**: • CE in Latvian • CE in physics or CE in mathematics **Competition criteria for persons with an obtained secondary education up to year 2004 (not included) as well as persons who have obtained their secondary education abroad and persons with special needs**: • final average grade in Latvian and literature • final grade in mathematics (or the average grade of algebra and geometry) or in physics • final average grade in certain study subjects **Special conditions**: the final physics grade has to be positive (grade not lower than 4 in a 10-point scale) in the secondary education document **Preferential claims**: 1st to 3rd place winners in national or international physics or mathematics olympiads, or Latvian state student scientific conference in physics or astronomy in the current academic year; 1st to 3rd place winners in open physics, mathematics or astronomy olympiad in the current academic year **Additional points**: LU Young Physics School participants in year 2018 who have acquired a certificate in addition receive 100 points
Workload (amount of ECTS credits)	180 ECTS credits
Mode of study (if relevant)	Full-time
Profile (academic, professional) *If relevant, add contextual information*	Academic
Access to further studies	Access to second cycle (master, professional master or second level professional higher education) programmes
Professional rights (if exists)	n.a.
Awarding of qualification	
• Requirements for graduation	• State examination, including the graduation thesis • 180 ECTS credits (full time studies – 3 years (6 semesters))
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	University of Latvia (*Latvijas Universitāte*) Higher education institution

Country	Latvia
• Procedure (if relevant)	
• Diploma Supplement (according to model developed by the European Commission, Council of Europe and UNESCO/ CEPES) is awarded (Yes/No)	Yes, upon request in English
• Other documents issued (Yes/No) ▪ If yes what title and type	No
External quality assurance	
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	Accreditation period for this study field is from 29.05.2013 to 28.05.2019 Name of the study field: Physics, Material Science, Mathematics and Statistics
• Title of quality assurance body (national, other)	Academic Information Centre (AIC) – Quality Agency for Higher Education (AIKA) (national level) During the accreditation period the institution responsible for accreditation was the Latvian Ministry of Education and Science But from July, 2015 the responsible institution for accreditation in Latvia is Quality Agency for Higher Education (AIKA) The external quality assessment is carried out in accordance with the Cabinet of Ministers Regulations and in accordance with EQANIE (European Quality Assurance Network for Informatics Education) standards
Learning outcomes	
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	1. University website: https://www.lu.lv/en/nc/studies/study-process/courses/programme-search/programma/21023/ 2. Study field self-assessment report – page 66 (only in Latvian): https://www.lu.lv/fileadmin/user_upload/lu_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/FIZIKA_MATEMATIKA_2017_PUB.pdf 3. Latvian Qualifications Database: https://www.latvijaskvalifikacijas.lv/qualification/dabaszinatnu-bakalaura-grads-fizika-lu/
• Formulation of learning outcomes (who defines, who approves, ownership)	Learning outcomes are formulated by the University of Latvia, programme director and other involved parties responsible for the particular programme. Learning outcomes are owned by the University.
• Learning outcomes are subject to quality assurance (Yes/No)	Yes
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	• Knowledge – a set of cognitive items acquired during learning, work and life experience • Skills – ability to perform an activity according to the desired quality and scope • Competences – a flexible and dynamic set of knowledge, skills, attitudes, values and emotions for performing a specific activity • Basic skills – ability to perform activities that are necessary for modern life, work and further teaching/learning according to certain requirements (for example, the skill to listen, talk, read, write, calculate, use digital technologies) • Key competences – competences that are needed for the development and progress of oneself, civil activity, social inclusion and employment, for example: 1) communication in the mother tongue; 2) communication in foreign languages; 3) mathematical, science and technology competences; 4) digital competences; 5) learning competences; 6) social and civic competences; 7) entrepreneurial competences; 8) cultural awareness and expression

Country	Latvia
• Generic learning outcomes (e.g. national, sectoral)	**National level** **Knowledge**: • Able to demonstrate the basic and specialised knowledge and critical understanding on the relevant field of science or profession. Part of the knowledge corresponds to the highest level of achievements in the relevant field of science or profession • Able to demonstrate the understanding of key concepts and regularities in the relevant field of science or professional field **Skills**: • Able to use the acquired theoretical knowledge and skills to perform a professional, artistic, innovative or research activity, to formulate and analyse information, problems and solutions in his or her scientific field or profession, to explain them and to argue with them both with specialists and non-specialists • Ability to independently structure your learning, to direct your and your subordinate further learning and professional development, to demonstrate a scientific approach to problem solving, to take responsibility and initiative by doing work individually, in a team or by directing the work of others, making decisions and finding creative solutions in changing or uncertain conditions **Competences**: • Is able to independently acquire, select and analyse information and use it, make decisions and solve problems in the corresponding field of science or profession, show that they understand professional ethics, evaluate the impact of their professional activities on the environment and society and participate in the development of the relevant professional field
• Learning outcomes (as defined by qualification provider or awarding body)	**From University website**: Physics Bachelors demonstrate: • Knowledge of fundamental laws and principles of physics and the competent use of this knowledge to the various sub-fields of physics • Ability to solve physics problems, using appropriate mathematical methods, students can identify the relevant physics principles and make approximations to obtain a solution • Ability to carry out experiments or theoretical research and critically analyse the results, draw valid conclusions • Students are able to assess the credibility of the results and to compare their data with the expected, theoretically predicted or published results; • Effective use of IT packages/systems for data analysis and for obtaining the necessary information • Numerical data processing capabilities for the graphical data presentation and interpretation • Ability to use mathematical methods for physics problems' description and analysis • Capability to communicate the scientific information in clear and accurate scientific statements • Independent work performance, the ability to use scientific texts • Good knowledge of the simplest equipment and methods of measurements used in physics laboratories
Any other relevant information regarding the qualification	

Qualification: Profesionālā maģistra grāds psiholoģijā, Psihologs

Level of NQF/EQF: 7/7

Country	Latvia
Full title of qualification (EN)	Professional Master's Degree in Psychology, Psychologist
Full title of qualification (national lng)	*Profesionālā maģistra grāds psiholoģijā, Psihologs*
Access requirements	Bachelor's diploma or Second level professional higher education diploma (after at least 4 year full-time studies)
Admission requirements	**Full-time – 3 years (6 semesters)** Previous education: Bachelor of Social Sciences in Psychology **Formula for calculating the competition score**: final average grade (50 x 10 = 500) + entrance exam (1 x 500 = 500). Additional condition: submitting an essay on study motivation and sub-sector selection **Eligibility for non-competition registration:** 2018/2019 academic year graduates of Bachelor's study programme "Psychology" of the University of Latvia, whose Bachelor's thesis is not lower than 9 (excellent) and the average grade in bachelor's studies is not lower than 8. **Full-time – 2 years (4 semesters)** Previous education: Second level professional higher education (or equivalent in higher education system) in psychology **Formula for calculating the competition score**: final average grade (50 x 10 = 500) + entrance exam (1 x 500 = 500). Additional condition: submitting an essay on study motivation and sub-sector selection **Eligibility for non-competition registration**: 2018/2019 academic year graduates of the Professional higher education bachelor study programme "Psychology" of the University of Latvia, for which the Bachelor's paper is not lower than 9 (excellent) and the average grade in basic studies is not lower than 8
Workload (amount of ECTS credits)	120 ECTS credits (2 year studies) 180 ECTS credits (3 year studies)
Mode of study (if relevant)	Full-time
Profile (academic, professional) *If relevant, add contextual information*	Professional
Access to further studies	Access to third cycle (doctoral) programmes
Professional rights (if exists)	
Awarding of qualification	
• Requirements for graduation	• State examination, including the graduation thesis • 120 or 180 ECTS credits
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	University of Latvia (*Latvijas Universitāte*) Higher education institution
• Procedure (if relevant)	
• Diploma Supplement (according to model developed by the European Commission, Council of Europe and UNESCO/ CEPES) is awarded (Yes/No)	Yes
• Other documents issued (Yes/No) ▪ If yes what title and type	No
External quality assurance	
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	Accreditation period for this study field is from 17.05.2013 to 16.05.2019 Name of the study field: Psychology

Country	Latvia
• Title of quality assurance body (national, other)	Academic Information Centre (AIC) – Quality Agency for Higher Education (AIKA) (national level) During the accreditation period the institution responsible for accreditation was the Latvian Ministry of Education and Science But from July, 2015 the responsible institution for accreditation in Latvia is Quality Agency for Higher Education (AIKA)
Learning outcomes	
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	1. Study field self-assessment report – page 88 (only in Latvian): https://www.lu.lv/fileadmin/user_upload/lu_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/PSIHOLOGIJA_2017_PUB.pdf 2. Latvian Qualifications Database: https://www.latvijaskvalifikacijas.lv/qualification/profesionala-magistra-grads-psihologija-psihologs-lu/
• Formulation of learning outcomes (who defines, who approves, ownership)	Learning outcomes are formulated by the University of Latvia, programme director and other involved parties responsible for the particular programme Learning outcomes are owned by the university
• Learning outcomes are subject to quality assurance (Yes/No)	Yes
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	• Knowledge – a set of cognitive items acquired during learning, work and life experience • Skills – ability to perform an activity according to the desired quality and scope • Competences – a flexible and dynamic set of knowledge, skills, attitudes, values and emotions for performing a specific activity • Basic skills – ability to perform activities that are necessary for modern life, work and further teaching/learning according to certain requirements (for example, the skill to listen, talk, read, write, calculate, use digital technologies) • Key competences – competences that are needed for the development and progress of oneself, civil activity, social inclusion and employment, for example: 1) communication in the mother tongue; 2) communication in foreign languages; 3) mathematical, science and technology competences; 4) digital competences; 5) learning competences; 6) social and civic competences; 7) entrepreneurial competences; 8) cultural awareness and expression
• Generic learning outcomes (e.g. national, sectoral)	**National level** **Knowledge**: • Able to demonstrate in-depth or extended knowledge and understanding, part of which corresponds to the latest discoveries of the relevant field of science or profession and which provide the basis for creative thinking or research, including working in different fields of interaction **Skills**: • Ability to independently use theory, methods and problem-solving skills to perform research or artistic activity, or highly qualified professional functions • Able to reasonably argue and discuss complex or systemic aspects of the relevant scientific field or field of expertise, both with specialists and non-specialists • Is able to independently push for the development and specialisation of his competences, assume responsibility for the results of the work of the groups of staff and analyse them, conduct business, innovate in the relevant field of science or profession, carry out work, research or further study in difficult and unpredictable conditions and, if necessary, transform them using new approaches **Competences**: • Is able to independently formulate and critically analyse complex scientific and professional problems, substantiate decisions and, if necessary, perform additional analysis • Is able to integrate the knowledge of different fields, to contribute to the creation of new knowledge, the development of research or professional methods, to demonstrate understanding and ethical responsibility for the effects of science or the potential impact of occupational activity on the environment and society

Country	Latvia
• Learning outcomes (as defined by qualification provider or awarding body)	**From Latvian Qualifications database:** **Knowledge and understanding**: • Graduates are able to demonstrate in-depth knowledge in psychology, understanding of psychology as a science and an area of professional work, as well as ability to critically evaluate, analyse and compare various theories of psychology • To understand regularities in the science of psychology and to understand issues in relation to various areas of the science • Graduates have specific knowledge in clinical, school, or organisational psychology **Skills** (ability to apply knowledge, communication, general skills): • Graduates are able to apply the acquired knowledge and skills in the professional and scientific research work • To apply the following skills in their professional work as a psychologist: • Psychological assessment, counselling, group management, skills in writing assessment reports and giving feedback, cooperation and working in a team with other experts in the process of rehabilitation of a client, and skills of evaluation of their own professional activities • To conduct psychological research studies using appropriate methods, perform data analysis using appropriate data processing methods, interpret results and write reports on the results of the study in the form a scientific article, and present the results of the study • Graduates have successful contact-building and efficient communication skills • Graduates are able to use analytical and critical thinking as well as scientific approach in problem-solving, are able to use efficient and creative problem-solving strategies in complex and unpredictable circumstances • Graduates are able to integrate their existing knowledge and create new approaches in problem-solving • Graduates take responsibility for the process of their further education and professional development, attend supervisions, and seek other types of assistance if necessary • Graduates are able to formulate and analytically describe information related to the science of psychology, problems and solutions, to explain, present, and discuss them efficiently with specialists or non-specialists • Graduates are able to take responsibility and initiative while working individually or in a team or managing work of other people, making decisions, or seeking solutions in various situations
	Competences: • Graduates are able to obtain, screen and critically analyse information from the conventional and modern sources independently and to apply this information in their scientific research • Graduates are able to collect, screen, analyse and use information required to help the client • Graduates are able to understand and use principles of psychology ethics as well as to make decisions and handle problems • Graduates are able to evaluate the effects of their professional activities on the environment and the society • To participate in the development of the science and the profession of psychologists through continuation of their further education
Any other relevant information regarding the qualification	

Qualification: Profesionālā maģistra grāds uzņēmējdarbības vadībā, Uzņēmumu un iestāžu vadītājs

Level of NQF/EQF: 7/7

Country	**Latvia**
Full title of qualification (EN)	Professional Master's degree in Business Administration, Head of enterprise/ institution
Full title of qualification (national lng)	*Profesionālā maģistra grāds uzņēmējdarbības vadībā, Uzņēmumu un iestāžu vadītājs*
Access requirements	Bachelor's diploma or Second level professional higher education diploma (after at least 4 year full-time studies)
Admission requirements	Bachelor's degree or second level professional higher education, or Master's degree in Economics or in Business Administration. Bachelor's or Master's degree or second level professional higher education in other fields of Social Sciences or related fields: in mathematics, computer science, information technologies, physics or engineering. Competition evaluation calculation formula: entrance examination (1 x 1000 = 1000); a Bachelor's degree or a second level professional education in Business Administration or in Economics can apply for competition with the following evaluation calculation formula: weighted average grade (60 x 10 = 600) + finals total (or average) grade (40 x 10 = 400). Additional requirements: 1) work experience of no less than 2 years in fields of business or economics 2) English language proficiency, as evidenced by the results of international English language tests – TOEFL Internet-based at least 80 points, IELTS minimum 5.5 points, CPE any level, CAE any level, FCE – B, PTE General – at least B2, or proof of English proficiency at least B2 level in accordance with the Common European Framework of Reference for Languages, or an English rating in a prior education document (the mark must be no lower than 6 (10-point scale) or "almost good") or an assessment of the entrance examination, except in the case of previous education in English 3) CV
Workload (amount of ECTS credits)	120 ECTS credits (2 year studies)
Mode of study (if relevant)	Full-time
Profile (academic, professional) *If relevant, add contextual information*	Professional
Access to further studies	Access to third cycle (doctoral) programmes
Professional rights (if exists)	
Awarding of qualification	
• Requirements for graduation	• State examination, including the graduation thesis • 120 ECTS credits
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	University of Latvia (*Latvijas Universitāte*) Higher education institution
• Procedure (if relevant)	

Country	Latvia
• Diploma Supplement (according to model developed by the European Commission, Council of Europe and UNESCO/ CEPES) is awarded (Yes/No)	Yes
• Other documents issued (Yes/No) ▪ If yes what title and type	No
External quality assurance	
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	Accreditation period for this study field is from 26.06.2013 to 25.06.2019 Name of the study field: Management, Administration and Real Estate Management
• Title of quality assurance body (national, other)	Academic Information Centre (AIC) – Quality Agency for Higher Education (AIKA) (national level) During the accreditation period the institution responsible for accreditation was the Latvian Ministry of Education and Science But from July, 2015 the responsible institution for accreditation in Latvia is Quality Agency for Higher Education (AIKA)
Learning outcomes	
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	1. University website: https://www.ba.lv/studijas/programma/inovativa-uznemejdarbiba/ 2. Latvian Qualifications Database: https://www.latvijaskvalifikacijas.lv/qualification/profesionala-magistra-grads-uznemumu-un-organizaciju-vadisana-inovativa-uznemejdarbiba-uznemumu-un-iestazu-vaditajs-ba/
• Formulation of learning outcomes (who defines, who approves, ownership)	Learning outcomes are formulated by BA school of finance, programme director and other involved parties responsible for the particular programme. Learning outcomes are owned by the university itself
• Learning outcomes are subject to quality assurance (Yes/No)	Yes
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	• Knowledge – a set of cognitive items acquired during learning, work and life experience • Skills – ability to perform an activity according to the desired quality and scope • Competences – a flexible and dynamic set of knowledge, skills, attitudes, values and emotions for performing a specific activity • Basic skills – ability to perform activities that are necessary for modern life, work and further teaching/learning according to certain requirements (for example, the skill to listen, talk, read, write, calculate, use digital technologies) • Key competences – competences that are needed for the development and progress of oneself, civil activity, social inclusion and employment, for example: 1) communication in the mother tongue; 2) communication in foreign languages; 3) mathematical, science and technology competences; 4) digital competences; 5) learning competences; 6) social and civic competences; 7) entrepreneurial competences; 8) cultural awareness and expression

Country	Latvia
• Generic learning outcomes (e.g. national, sectoral)	**National level** **Knowledge**: • Able to demonstrate in-depth or extended knowledge and understanding, part of which corresponds to the latest discoveries of the relevant field of science or profession and which provide the basis for creative thinking or research, including working in different fields of interaction **Skills**: • Ability to independently use theory, methods and problem-solving skills to perform research or artistic activity, or highly qualified professional functions • Able to reasonably argue and discuss complex or systemic aspects of the relevant scientific field or field of expertise, both with specialists and non-specialists • Is able to independently push for the development and specialisation of his competences, assume responsibility for the results of the work of the groups of staff and analyse them, conduct business, innovate in the relevant field of science or profession, carry out work, research or further study in difficult and unpredictable conditions and, if necessary, transform them using new approaches **Competences**: • Is able to independently formulate and critically analyse complex scientific and professional problems, substantiate decisions and, if necessary, perform additional analysis. • Is able to integrate the knowledge of different fields, to contribute to the creation of new knowledge, the development of research or professional methods, to demonstrate understanding and ethical responsibility for the effects of science or the potential impact of occupational activity on the environment and society
• Learning outcomes (as defined by qualification provider or awarding body)	**From the university website:** • Ability to demonstrate in-depth knowledge and understanding of the competitiveness of enterprises on the basis of innovative solutions that provide the basis for sustainable business leadership, creative thinking and research • Skills to independently apply the latest theories, methods and problem-solving skills to carry out research and highly professional activities for the creation of new knowledge and innovative entrepreneurship • Ability to adopt and substantiate decisions, as well as to integrate gained knowledge in different fields for the development of innovative business and to carry out professional activities using new approaches • Skills to argue, explain and discuss complex business issues in local and international environment for the promotion of innovative business • Ability to continuously develop your competences and professional development for the promotion of innovative entrepreneurship
Any other relevant information regarding the qualification	

United Kingdom

Qualification: Bachelor of Science in Physics

Level of NQF/EQF: 6

Country	United Kingdom
Full title of qualification (EN)	Bachelor of Science in Physics
Full title of qualification (national lng)	Bachelor of Science in Physics
Access requirements	UK universities are autonomous and so they set the access requirements for their programmes and have flexibility in what entrance profiles they accept. Below are the entrance requirements typically set for this programme by Imperial College London: 3 GCE Advanced Levels (with grades of A*A*A, including an A* in mathematics and an A in physics) – not including General Studies and Critical thinking; or International Baccalaureate – 39 points overall (7, 6, 6 at high level, including mathematics and physics); IELTS 6.5 overall (minimum 6.0 in all elements)
Admission requirements	An interview is required at Imperial College London An admissions test may be required to provide additional information for the Admissions tutor
Workload (amount of ECTS credits)	180 ECTS credits (360 CATS)
Mode of study (if relevant)	Full-time
Profile (academic, professional) *If relevant, add contextual information*	Academic (UK higher education institutions do not make an official distinction between "academic" and "professional" for qualifications)
Access to further studies	Direct access to second cycle (master) programmes, or third cycle (doctoral) programmes – as UK universities are autonomous, they set the entry criteria for their programmes and so they have flexibility in what entrance profiles they accept
Professional rights (if exists)	The title of Chartered Physicist is regulated in the UK, but this is a voluntary title with no reserved activities
Awarding of qualification	
• Requirements for graduation	**Year One** A student must: • Achieve an aggregate mark of at least 40% in each element • Achieve a mark of 65% in Year 1 mathematics to take Mathematical Methods in Year 2 **Year Two** A student must: • Achieve an aggregate mark of at least 40% in each element **Year Three** A student must: • Achieve an aggregate mark of at least 40% in each element • Attempt a project or essay project (Elective F)
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	Imperial College London Higher education institution
• Procedure (if relevant)	
• Diploma Supplement (according to model developed by the European Commission, Council of Europe and UNESCO/CEPES) is awarded (Yes/No)	No
• Other documents issued (Yes/No) ▪ If yes what title and type	No
External quality assurance	

Country	United Kingdom
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	Institution (Royal Charter since 1907) Programme (Institute of Physics since 2015)
• Title of quality assurance body (national, other)	The Quality Assurance Agency for Higher Education (national)
Learning outcomes	
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	Programme learning outcomes are available at: https://www.imperial.ac.uk/media/imperial-college/study/programme-specifications/physics/1718/ProgSpec(F300)-2017-18.pdf The Graduate Attributes are available at: www.imperial.ac.uk/students/academic-support/graduate-attributes QAA Subject Benchmark Statement is available at: https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/sbs-physics-astronomy-and-astrophysics-17.pdf?sfvrsn=2f94f781_12
• Formulation of learning outcomes (who defines, who approves, ownership)	Institution defines programme learning outcomes and graduate attributes. QAA defines the subject benchmark statements, which are established by a benchmark statement group and reviewed by a review group
• Learning outcomes are subject to quality assurance (Yes/No)	Learning outcomes are a measure of quality assurance. The QAA has examined qualifications to ensure the learning outcomes are being delivered. Higher education institutions are largely responsible for ensuring their programmes deliver the learning outcomes
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	There is no specific UK definition of what a learning outcome is. Generally, reference is made to the definition published by CEDEFOP
• Generic learning outcomes (e.g. national, sectoral)	**QAA Descriptor for a Higher Education Qualification at Level 6 on the FHEQ: Bachelor's degree with Honours** Bachelor's degrees with honours are awarded to students who have demonstrated: • A systematic understanding of key aspects of their field of study, including acquisition of coherent and detailed knowledge, at least some of which is at, or informed by, the forefront of defined aspects of a discipline • An ability to deploy accurately established techniques of analysis and enquiry within a discipline • Conceptual understanding that enables the student: ‣ to devise and sustain arguments, and/or to solve problems, using ideas and techniques, some of which are at the forefront of a discipline ‣ to describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline • An appreciation of the uncertainty, ambiguity and limits of knowledge • The ability to manage their own learning, and to make use of scholarly reviews and primary sources (for example, refereed research articles and/or original materials appropriate to the discipline) Typically, holders of the qualification will be able to: ‣ Apply the methods and techniques that they have learned to review, consolidate, extend and apply their knowledge and understanding, and to initiate and carry out projects ‣ Critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete), to make judgements, and to frame appropriate questions to achieve a solution – or identify a range of solutions – to a problem ‣ Communicate information, ideas, problems and solutions to both specialist and non-specialist audiences. And holders will have: • The qualities and transferable skills necessary for employment requiring: ‣ the exercise of initiative and personal responsibility ‣ decision-making in complex and unpredictable contexts ‣ the learning ability needed to undertake appropriate further training of a professional or equivalent nature

Country	United Kingdom
	QAA Subject Benchmark Statement: Physics, Astronomy and Astrophysics *Threshold level* An ability to: • Comprehend basic physical laws and principles • Identify and use relevant principles and laws when dealing with simple problems • Execute and analyse the results of an experiment (if on an experimental programme) or investigation. Such analysis will include the evaluation of the level of uncertainty in their results, a comparison of the results with expected outcomes, theoretical and computational models or published data and, hence, an assessment of their significance • Safely use basic laboratory apparatus in an experimental procedure (if on an experimental programme) • Competently use appropriate ICT software packages/systems for the analysis of data, simulation of physical systems and the retrieval of appropriate information • Undertake numerical manipulation and to present and interpret information graphically • Communicate scientific information, in particular through scientific reports • Manage their own learning and to make use of appropriate texts and learning materials *Typical level* Competence in: • The application of physical principles to diverse areas of Physics • The solution of problems in Physics by selecting and using appropriate mathematical and physical techniques • Making appropriate approximations when solving problems • Critical analysis of the results of an experiment or investigation, evaluation of their significance and setting them in context • The design and execution of effective experiments (if on an experimental programme) • Use of mathematical and computational techniques and analysis to model physical behaviour • Clear and accurate communication of scientific information • Management and use of research-based materials **Imperial College Graduate Attributes:** • Demonstrate deep conceptual understanding of their chosen discipline • Work effectively in multi-cultural, international teams and across disciplinary boundaries • Approach challenges with curiosity, critical thinking and creativity • Innovatively apply their skills to tackling complex real-world problems • Understand and value different cultures and perspectives • Have developed into independent learners with high self-efficacy • Display a strong sense of personal and professional identity
	QAA Subject Benchmark Statement: Physics, Astronomy and Astrophysics *Threshold level* An ability to: • Comprehend basic physical laws and principles • Identify and use relevant principles and laws when dealing with simple problems • Execute and analyse the results of an experiment (if on an experimental programme) or investigation. Such analysis will include the evaluation of the level of uncertainty in their results, a comparison of the results with expected outcomes, theoretical and computational models or published data and, hence, an assessment of their significance • Safely use basic laboratory apparatus in an experimental procedure (if on an experimental programme) • Competently use appropriate ICT software packages/systems for the analysis of data, simulation of physical systems and the retrieval of appropriate information • Undertake numerical manipulation and to present and interpret information graphically • Communicate scientific information, in particular through scientific reports • Manage their own learning and to make use of appropriate texts and learning materials
	Typical level Competence in: • The application of physical principles to diverse areas of Physics • The solution of problems in Physics by selecting and using appropriate mathematical and physical techniques • Making appropriate approximations when solving problems • Critical analysis of the results of an experiment or investigation, evaluation of their significance and setting them in context • The design and execution of effective experiments (if on an experimental programme) • Use of mathematical and computational techniques and analysis to model physical behaviour • Clear and accurate communication of scientific information • Management and use of research-based materials **Imperial College Graduate Attributes:** ‣ Demonstrate deep conceptual understanding of their chosen discipline • Work effectively in multi-cultural, international teams and across disciplinary boundaries • Approach challenges with curiosity, critical thinking and creativity • Innovatively apply their skills to tackling complex real-world problems • Understand and value different cultures and perspectives • Have developed into independent learners with high self-efficacy • Display a strong sense of personal and professional identity

Country	United Kingdom
• Learning outcomes (as defined by qualification provider or awarding body)	**Knowledge and Understanding o**f: • The fundamentals, which all students need to cover, including electromagnetism, optics, quantum and classical mechanics, relativity, statistical physics and thermodynamics, wave phenomena and the properties of matter • The application of the fundamental principles to particular areas. These include nuclear and particle physics, condensed matter physics and atomic structure • A few subjects which students study in greater depth and appreciate current developments at the frontiers of the subject **Practical Skills** – students will learn how to: • Plan, execute and report the results of a complex extended experiment or investigation, using appropriate methods to analyse data and to evaluate the level of its uncertainty • Use appropriate software such as programming languages and packages in a physics investigation **Transferable Skills** – students will learn how to: • Solve open-ended problems and problems with well-defined solutions by formulating problems in precise terms, identifying key issues and trying different approaches in order to make progress • Carry out an independent investigation using textbooks and other available literature, searching databases and interacting with colleagues and staff to extract important information • Communicate effectively by listening carefully and presenting complex information in a clear and concise manner orally, on paper and using ICT • Use analytical skills, paying attention to detail and using technical language correctly, to manipulate precise and intricate ideas, and to construct logical arguments • Use ICT skills for communication and analysis • Work independently, use their initiative, meet deadlines, plan and execute a project • Work in groups, interacting constructively with others
Any other relevant information regarding the qualification	

Qualification: Master of Science in Psychology

Level of NQF/EQF: 7

Country	**United Kingdom**
Full title of qualification (EN)	Master of Science in Psychology
Full title of qualification (national lng)	Master of Science in Psychology
Access requirements	UK universities are autonomous and so they set the access requirements for their programmes and have flexibility in what entrance profiles they accept Below are the entrance requirements typically set for this programme by the University of Birmingham: Bachelor's (Honours) degree in Psychology or a related discipline, with an Upper Second Classification, or equivalent, with an Upper Second Classification in the final-year research project
Admission requirements	800-word personal statement English language qualifications, as per university requirements: https://www.birmingham.ac.uk/postgraduate/pgt/requirements-pgt/international/index.aspx
Workload (amount of ECTS credits)	75 ECTS credits (150 CATS)
Mode of study (if relevant)	Full-time
Profile (academic, professional) *If relevant, add contextual information*	Academic UK higher education institutions do not make an official distinction between "academic" and "professional" for qualifications
Access to further studies	Access to third cycle (doctoral) programmes
Professional rights (if exists)	The title of Practitioner Psychologist is regulated in the UK. Doctoral-level qualifications are required to access this professional title. Therefore, this qualification does not confer professional rights
Awarding of qualification	
• Requirements for graduation	A student must complete a minimum of 30 ECTS credits in Term 1, 15 ECTS credits in Term 2, and 30 ECTS credits in Term 3. This includes the submission of the MSc Research Project
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	University of Birmingham Higher education institution
• Procedure (if relevant)	
• Diploma Supplement (according to model developed by the European Commission, Council of Europe and UNESCO/CEPES) is awarded (Yes/No)	No
• Other documents issued (Yes/No) ▪ If yes what title and type	No
External quality assurance	
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	Institution (Royal Charter since 1900)
• Title of quality assurance body (national, other)	The Quality Assurance Agency for Higher Education (national)

Country	United Kingdom
Learning outcomes	
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	Module learning outcomes are available at: https://www.birmingham.ac.uk/Documents/college-les/psych/courses/msc-psychology-modules.pdf QAA Subject Benchmark Statements are not available for Master's degrees in Psychology
• Formulation of learning outcomes (who defines, who approves, ownership)	Institution defines programme learning outcomes and graduate attributes
• Learning outcomes are subject to quality assurance (Yes/No)	Learning outcomes are a measure of quality assurance. The QAA has examined qualifications to ensure the learning outcomes are being delivered. Higher education institutions are largely responsible for ensuring their programmes deliver the learning outcomes
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	There is no specific UK definition of what a learning outcome is. Generally, reference is made to the definition published by CEDEFOP
• Generic learning outcomes (e.g. national, sectoral)	**QAA Descriptor for a Higher Education Qualification at Level 7 on the FHEQ and SCQF level 11 on the FQHEIS: master's degree** Master's degrees are awarded to students who have demonstrated: • A systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study or area of professional practice • A comprehensive understanding of techniques applicable to their own research or advanced scholarship • Originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline • Conceptual understanding that enables the student: ‣ to evaluate critically current research and advanced scholarship in the discipline ‣ to evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses Typically, holders of the qualification will be able to: • Deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences • Demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level • Continue to advance their knowledge and understanding, and to develop new skills to a high level And holders will have: • The qualities and transferable skills necessary for employment requiring: ‣ the exercise of initiative and personal responsibility ‣ decision-making in complex and unpredictable situations ‣ the independent learning ability required for continuing professional development

Country	United Kingdom
• Learning outcomes (as defined by qualification provider or awarding body)	Learning outcomes from compulsory modules: Be able to: • Discuss and identify different research approaches • Identify current and emerging research topics and techniques • Critically assess and review journal articles • Design a research project(s) using methods relevant to specific research area(s) • Write a research report using professionally accepted formats • Demonstrate a working knowledge of IT and administrative skills and ethical, legal, and health and safety issues when conducting psychology and neuroscience research • Demonstrate a broad knowledge of the main methods used for mapping brain functions in cognitive neuroscience • Show an appreciation of the design and analysis of fMRI experiments • Understand the methods used in published imaging papers, and be able to design simple imaging experiments • Demonstrate a broad knowledge of current research in psychology • Understand the current theoretical debates • Understand the methodologies employed in current research • Write a summary of current research in a style for public understanding • Write a research proposal • Demonstrate a working knowledge of the key skills and issues useful for research • Visually present research in a concise and clear manner, in the form of a professional conference-style poster presentation • Understand the methodologies and background knowledge relevant to specific research area • Systematically conduct a substantial empirical inquiry using research methods and analysis techniques appropriate to the field of research and level of study • Communicate effectively in writing, using professionally accepted protocols, to a standard that would be suitable for publication in a research journal • Visually and orally present research in a concise and clear manner • Develop a research project that entails some aspect of originality, and show independence in managing the research project Further learning outcomes are available for optional modules
Any other relevant information regarding the qualification	

Qualification: Master of Business Administration

Level of NQF/EQF: 7

Country	United Kingdom
Full title of qualification (EN)	Master of Business Administration
Full title of qualification (national lng)	Master of Business Administration
Access requirements	Determined on a case-by-case basis Typically, a UK Bachelor (Honours) degree is required, or equivalent, with at least a Second Class classification
Admission requirements	Three years of relevant work experience is required English language competence is required (with IELTS 6.5 overall, with 6.5 in reading and writing, 6.0 in speaking and listening stated as the acceptable scores)
Workload (amount of ECTS credits)	90 ECTS credits (180 CATS)
Mode of study (if relevant)	Full-time
Profile (academic, professional) *If relevant, add contextual information*	Academic UK higher education institutions do not make an official distinction between "academic" and "professional" for qualifications
Access to further studies	Access to third cycle (doctoral) programmes
Professional rights (if exists)	The titles of Chartered Manager and Chartered Management Accountant are regulated in the UK. Access to the professions of manager and accountant are unregulated in the UK and therefore this qualification does not confer professional rights
Awarding of qualification	
• Requirements for graduation	A student must complete a minimum of 80 ECTS credits from the compulsory modules and a minimum of 10 ECTS credits from the optional core modules
• Awarding body: ▪ Name of institution ▪ Type of institution (for example, higher education institution)	University of Southampton Higher education institution
• Procedure (if relevant)	
• Diploma Supplement (according to model developed by the European Commission, Council of Europe and UNESCO/CEPES) is awarded (Yes/No)	No
• Other documents issued (Yes/No) ▪ If yes what title and type	No
External quality assurance	
• Type of accreditation (e.g. programme, field, institution) *Please mention all types of accreditation necessary for this qualification to be state recognised in the country*	Institution (Royal Charter since 1952) Qualification (Association of MBA's, The Association to Advance Collegiate Schools of Business, Chartered Management Institute, the Chartered Institute of Management Accountants)
• Title of quality assurance body (national, other)	The Quality Assurance Agency for Higher Education (national)
Learning outcomes	
• Visibility of learning outcomes (e.g. Diploma Supplement, website) *Please add links if available*	Module learning outcomes are available at: https://www.southampton.ac.uk/business-school/postgraduate/taught_courses/mba.page#programme_overview%0A QAA Subject Benchmark Statements are available for Master's degrees in Business and Management at: https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/sbs-business-and-management-15.pdf?sfvrsn=1997f681_16
• Formulation of learning outcomes (who defines, who approves, ownership)	Institution defines programme learning outcomes and graduate attributes

Country	United Kingdom
• Learning outcomes are subject to quality assurance (Yes/No)	Learning outcomes are a measure of quality assurance. The QAA has examined qualifications to ensure the learning outcomes are being delivered. Higher education institutions are largely responsible for ensuring their programmes deliver the learning outcomes
• Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions)	There is no specific UK definition of what a learning outcome is. Generally, reference is made to the definition published by CEDEFOP
• Generic learning outcomes (e.g. national, sectoral)	**QAA Descriptor for a Higher Education Qualification at Level 7 on the FHEQ and SCQF level 11 on the FQHEIS: master's degree** Master's degrees are awarded to students who have demonstrated: • A systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study or area of professional practice • A comprehensive understanding of techniques applicable to their own research or advanced scholarship • Originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline • Conceptual understanding that enables the student: ‣ to evaluate critically current research and advanced scholarship in the discipline ‣ to evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses. Typically, holders of the qualification will be able to: • Deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences • Demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level • Continue to advance their knowledge and understanding, and to develop new skills to a high level And holders will have: • The qualities and transferable skills necessary for employment requiring: ‣ the exercise of initiative and personal responsibility ‣ decision-making in complex and unpredictable situations ‣ the independent learning ability required for continuing professional development
• Learning outcomes (as defined by qualification provider or awarding body)	**A. Knowledge and understanding** Having successfully completed this programme you will be able to demonstrate knowledge and understanding of: A1. Fundamental business skills in people management, accounting, finance, marketing, and operations, and how they contribute to effective business management A2. How businesses are affected by the global environment, including issues of business ethics and multiple stakeholder management A3. Complex business applications and approaches, including business analytics, risk management, strategy, decision-making, sustainability, innovation and change, and how they contribute to effective business management A4. The integration of different business management functions and tools and how they can be applied to solve business problems A5. How to conduct research into business and management issues and how the findings can be used to solve business problems **B. Subject specific intellectual and research skills** Having successfully completed this programme you will be able to: B1. Apply fundamental business skills in people management, accounting, finance, marketing, operations to the effective management of business B2. Integrate issues of the global environment, including business ethics and multiple stakeholder management, into key business decisions B3. Apply complex business applications and approaches, including business analytics, risk management, strategy, decision-making, sustainability, innovation and change, to the effective leadership of business B4. Integrate business management functions and tools in the solution of business problems, making suitable recommendations to organisations B5. Conduct research into business and management issues and use the findings to solve business and management problems, making suitable recommendations to organisations
Any other relevant information regarding the qualification	

Annex 8.

The results of keyword analysis in the learning outcomes

Annex 8. The results of keyword analysis in the learning outcomes

Keyword analysis in the learning outcomes: Bachelor's degree in Physics

Topic	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Knowledge	• Demonstrate knowledge and understanding of basic mathematics and related subjects (including mathematical methods for physics; computing; numerical analysis) • Demonstrate knowledge and understanding of general physics (introduction to physics: classical mechanics, molecular physics, electricity and magnetism, optics, atomic and nuclear physics) and astrophysics • Demonstrate knowledge and understanding of experimental methods (development of measurement methods and instrumentation, measurement theory and treatment of experimental errors) • Demonstrate knowledge and understanding of basic elements in theoretical physics (analytical mechanics, classical electromagnetism and relativity, quantum mechanics, statistical physics and thermodynamics) • Demonstrate knowledge of modern educational technologies in physics • Demonstrate knowledge of elements of applied and modern physics (microwave physics, micro and nanoelectronics, material science, laser physics, etc.)		• Has a systematic knowledge of physical sciences	• Knowledge of fundamental laws and principles of physics	• Knowledge and understanding of the fundamentals, which all students need to cover
Research and innovation	• Capable to analyse the basic experimental facts of physics	• To conduct theoretical and experimental research in the field of fundamental and applied physics as well as in those fields of other sciences for which the methodology and means of physics are needed • To develop the physics foundations of new technologies and systems • To carry out observations of objects in space, atmosphere, hydrosphere and earth crust	• Has experience in modelling natural, technological and social processes	• Ability to carry out experiments or theoretical research and critically analyse the results, draw valid conclusions. Students are able to assess the credibility of the results and to compare their data with the expected, theoretically predicted or published results • The ability to use scientific texts	• Plan, execute and report the results of a complex extended experiment or investigation, using appropriate methods to analyse data and to evaluate the level of its uncertainty
Mathematics	• Demonstrate knowledge and understanding of basic mathematics and related subjects (including mathematical methods for physics	• To perform teaching in the different branches of physics, astronomy, meteorology, mathematics	• Ability to use mathematical methods for physics problems' description and analysis	• Students can identify the relevant physics principles and make approximations to obtain a solution	

Topic	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Measurement methods	• Demonstrate knowledge and understanding of experimental methods (development of measurement methods and instrumentation	• To develop methods and tools for research, measurement • To perform measurements of the physics constants of the substance characteristics and parameters of appliances and devices	• Is able to use measuring instruments and methods of measurement	• Good knowledge of the simplest equipment and methods of measurements used in physics laboratories	
IT skills	• Demonstrate knowledge and understanding of computing	• To use modern computing equipment to process measurement results		• Effective use of IT packages/systems for data analysis and for obtaining the necessary information	• Use appropriate software such as programming languages and packages in a physics investigation • Use ICT skills for communication and analysis
Data analysis	• Demonstrate knowledge and understanding of numerical analysis	• To use physics methods for analysing the substance	• Is able to analyse big data	• Numerical data processing capabilities	• Carry out an independent investigation using textbooks and other available literature, searching databases
Problem solving	• Able to solve main problems in the framework of classical and quantum physics		• Is able to formulate problems in his/her specialty, and able to find, analyse and use the information for solving those problems	• Ability to solve physics problems, using appropriate mathematical methods • Ability to use mathematical methods for physics problems' description and analysis	• Solve open-ended problems and problems with well-defined solutions by formulating problems in precise terms, identifying key issues and trying different approaches in order to make progress
Physics terminology and presentation skills			• Within his/her specialty: knows the terminology, can explain problems and take part in professional discussions	• Capability to communicate the scientific information in clear and accurate scientific statements	• Communicate effectively by listening carefully and presenting complex information in a clear and concise manner orally, on paper and using ICT • Use analytical skills, paying attention to detail and using technical language correctly, to manipulate precise and intricate ideas, and to construct logical arguments
Communication and management			• Owns communication skills for teamwork, knows the fundamental concepts of project management and entrepreneurship	• Independent work performance, the ability to use scientific texts	• Work independently, use their initiative, meet deadlines, plan and execute a project • Work in groups, interacting constructively with others

Topic	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Other topics	• Demonstrate knowledge of modern educational technologies in physics	• To perform teaching in the different branches of physics, astronomy, meteorology, mathematics			• The fundamentals, which all students need to cover, including electromagnetism, optics, quantum and classical mechanics, relativity, statistical physics and thermodynamics, wave phenomena and the properties of matter • The application of the fundamental principles to particular areas. These include nuclear and particle physics, condensed matter physics and atomic structure • A few subjects which students study in greater depth and appreciate current developments at the frontiers of the subject

Keyword analysis in the learning outcomes: Master's degree in Psychology

Topic	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Knowledge	• Interpret psychoanalytic and other psychology knowledge	• To know the theoretical essence and the practical possibilities of the main psycho-consultative and psychotherapeuti c approaches	• Has knowledge of the main theories, models and methods of psychology • Knowledge of modern directions in counselling, scholar organisational psychology • Is able to apply acquired knowledge in professional work	• Graduates are able to demonstrate in-depth knowledge in psychology, understanding of psychology as a science • Graduates are able to apply the acquired knowledge and skills in the professional and scientific research work	• Demonstrate a broad knowledge of the main methods used for mapping brain functions in cognitive neuroscience
Analysis	• Able to analyse the existing problems of medical psychology and psychotherapy and to propose possible ways for their solution	• To interpret, comment and provide critical theoretical analysis of leading ideas in specific thematic areas of classical and contemporary psychology of life-path development	• Is able to critically evaluate and analyse psychological theories, results of studies and their methodological correctness • Ability to plan and critically analyse one's work	• Ability to critically evaluate, analyse and compare various theories of psychology • Graduates are able to collect, screen, analyse and use information required to help the client • Graduates are able to use analytical and critical thinking as well as scientific approach in problem-solving, are able to use efficient and creative problem-solving strategies in complex and unpredictable circumstances	
Communicat ion and social skills	• To explain neurotology mechanisms, diagnostic peculiarities, organic syndromes		• Is able to participate in professional discussions and use specific professional knowledge also in the broader societal context	• Graduates are able to formulate and analytically describe information related to the science of psychology, problems and solutions, to explain, present, and discuss them efficiently with specialists or non-specialists • Graduates have successful contact-building and efficient communication skills • Graduates are able to take responsibility and initiative while working individually or in a team or managing work of other people, making decisions, or seeking solutions in various situations • Skills in writing assessment reports and giving feedback, cooperation and working in a team with other experts in the process of rehabilitation of a client, and skills of evaluation of their own professional activities	• Understand the current theoretical debates • Communicate effectively in writing, using professionally accepted protocols, to a standard that would be suitable for publication in a research journal • Visually and orally present research in a concise and clear manner • Visually present research in a concise and clear manner, in the form of a professional conference-style poster presentation

Topic	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Research	• Able to use various sources of clinical psychology and psychotherapy (internet resources, e-libraries, professional books, and scientific articles)	• Be able to conduct individual scientific research • To define independently a research problem, formulate hypotheses, conduct empirical studies, analyse and interpret empirical results on their own research projects • To be able to select an adequate set of research tools to solve a specific research problem and develop their own methodologies		• To conduct psychological research studies using appropriate methods, perform data analysis using appropriate data processing methods, interpret results and write reports on the results of the study in the form a scientific article, and present the results of the study • Graduates are able to apply the acquired knowledge and skills in the professional and scientific research work • Graduates are able to obtain, screen and critically analyse information from the conventional and modern sources independently and to apply this information in their scientific research	• Critically assess and review journal articles • Design a research project(s) using methods relevant to specific research area(s) • Write a research report using professionally accepted formats • Understand the methodologies employed in current research • Write a summary of current research in a style for public understanding • Write a research proposal • Demonstrate a working knowledge of the key skills and issues useful for research • Prepare reports, conduct and present research findings, carry scientific debates • Demonstrate a broad knowledge of current research in psychology • Develop a research project that entails some aspect of originality, and show independence in managing the research project • Identify current and emerging research topics and techniques • Understand the methodologies and background knowledge relevant to specific research area • Systematically conduct a substantial empirical inquiry using research methods and analysis techniques appropriate to the field of research and level of study • Discuss and identify different research approaches • Understand the methods used in published imaging papers, and be able to design simple imaging experiments
Professional work	• Define neurotic and psychotic levels of person's pathology • Apply clinical tests for diagnostics • Able to carry experimental assessment of mental functions • Present different directions of psychotherapy, fundamental and methods	• To have the necessary skills for diagnosis, assessment, psycho-conscious and psycho-corrective work with individuals with normal, hampered or impaired development at individual and group level • To know the limits of applicability of psychological intervention and be able to formulate and implement an appropriate intervention strategy or direct the client to specialists from other fields depending on the specificity of the particular case	• Is able to work in the position of a psychologist, counsellor and other psychological aid provider or academic position • Is able to apply acquired knowledge in professional work	• Graduates are able to collect, screen, analyse and use information required to help the client • Graduates have specific knowledge in clinical, school, or organisational psychology • To apply the following skills in their professional work as a psychologist: psychological assessment, counselling, group management • Graduates are able to apply the acquired knowledge and skills in the professional and scientific research work • Skills in writing assessment reports and giving feedback, cooperation and working in a team with other experts in the process of rehabilitation of a client, and skills of evaluation of their own professional activities	

Topic	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Self-education and professional development			• Is able to evaluate the need for self-education and for continuing toward professional development (in the doctorate programme of psychology)	• Graduates take responsibility for the process of their further education and professional development, attend supervisions, and seek other types of assistance if necessary • Graduates are able to evaluate the effects of their professional activities on the environment and the society, to participate in the development of the science and the profession of psychologists through continuation of their further education	
Other topics	• Describe mental health standards and their classification			• Graduates are able to integrate their existing knowledge and create new approaches in problem-solving • Graduates are able to understand and use principles of psychology ethics as well as to make decisions and handle problems	• Demonstrate a working knowledge of IT and administrative skills and ethical, legal, and health and safety issues when conducting psychology and neuroscience research • Show an appreciation of the design and analysis of fMRI experiments

Keyword analysis in the learning outcomes: Master's degree in Business Administration

Topic	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Knowledge	• Upon successful completion of the programme students will have wide knowledge in economics and management disciplines	• Theoretical foundations and basic principles for forming/ building the economic and administrative management practice • Methodological foundations of organisational development and their resulting methods of organising, designing, preparation, making of decisions and working with people in the organisation	• Acquires systematic understanding and wide range knowledge in economics and management disciplines, and has gained deep knowledge in the selected field (management and marketing, finance management, organisational behaviour, public economics and management or service design and management) • Knows categories and terminology used in economics and management sciences • Knows contemporary theories and developmental trends of management and marketing and financial management • Knows the main issues of public sector economics and finance and understands its relations to economics • Understands the theoretical approaches of economic policy	• Ability to demonstrate in-depth knowledge and understanding of the competitiveness of enterprises on the basis of innovative solutions that provide the basis for sustainable business leadership, creative thinking and research	
Research	• Know how to prepare reports, present results of scientific research	• Modelling, forecasting, strategic management and financial models in management for the purposes of targeted market and innovation research	• Has gained experience in scientific research	• Skills to independently apply the latest theories, methods and problem-solving skills to carry out research and highly professional activities for the creation of new knowledge and innovative	• Conduct research into business and management issues and use the findings to solve business and management problems, making suitable recommendations to organisations • How to conduct research into business and management issues and how the findings can be used to solve business problems
Problem solving	• Knows how to solve problems and evaluate resources for their solution • Able to classify marketing and innovation problems	• Solving the problems arising in the economic management as a result of the influence of the business environment of the business organisations • Diagnostics and counselling on issues concerning the organisational and economic status of companies, to reveal and to get over problematic situations and create favourable socio-psychological climate in organisations			• Integrate business management functions and tools in the solution of business problems, making suitable recommendations to organisations • The integration of different business management functions and tools and how they can be applied to solve business problems

Topic	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
Communication and presentation skills	• Able to present quality and risk management principles of general structures according to ISO 9001-2015 • Discuss strategical and financial management of an organisation in terms of resources, technological developments			• Skills to argue, explain and discuss complex business issues in local and international environment for the promotion of innovative business	
Data analysis	• Able to develop data base for effective budget and business management • Able to use different information sources including internet, libraries, scientific papers, etc.		• Can formulate and analyse economic situations of organisation and can analyse problems of organisational direction from the perspectives of different management concepts		
Professional work (management, planning)	• Knows how effectively plan time and other resources • Able to classify management decisions, planning and implementation of activities in the framework of changing environment • Able to take effective management decisions based on various marketing strategies and financial tools • Construct organisational quality management system and management models • Able to develop marketing strategies for evaluation of staff and corporative management	• Modern entrepreneurship, progressive management technologies and the use of new IT tools for support of business leadership	• Has acquired relevant tools for working at managerial or high level specialist positions in private and public sector	• Ability to adopt and substantiate decisions, as well as to integrate gained knowledge in different fields for the development of innovative business and to carry out professional activities using new approaches	• Fundamental business skills in people management, accounting, finance, marketing, and operations, and how they contribute to effective business management • How businesses are affected by the global environment, including issues of business ethics and multiple stakeholder management • Complex business applications and approaches, including business analytics, risk management, strategy, decision-making, sustainability, innovation and change, and how they contribute to effective business management • Apply fundamental business skills in people management, accounting, finance, marketing, operations to the effective management of business • Integrate issues of the global environment, including business ethics and multiple stakeholder management, into key business decisions • Apply complex business applications and approaches, including business analytics, risk management, strategy, decision-making, sustainability, innovation and change, to the effective leadership of business
Self- education and professional development				• Ability to continuously develop your competences and professional development for the promotion of innovative entrepreneurship	

Annex 9.

The results of the content analysis of the learning outcomes

Annex 9. The results of the content analysis of the learning outcomes

The content analysis of the learning outcomes: Bachelor's degree in Physics (frequency of concepts)

Skills	Short version of learning outcome	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
ability to use	to use equipment/software		X	X		X
ability to use	to use methods		X	X	X	X
ability to use	to use scientific texts				X	
ability to use	to use analysed information for solving problems			X		
ability to use	competent use of knowledge				X	
ability to use	use of initiative					X
ability to use	to use technical language					X
Ability to use		**0**	**2**	**3**	**3**	**4**
demonstrate knowledge and understanding of something	knowledge and understanding of methods/different subjects/ technologies	X				
demonstrate knowledge and understanding of something	knowledge and understand of different subjects/of application of different principles/					X
demonstrate knowledge of something	knowledge of principles/equipment/ subjects			X	X	
demonstrate knowledge of something	has a systematic knowledge			X		
Knowledge		**1**	**0**	**2**	**1**	**1**
problem solving	to solve problems	X			X	X
problem solving	to formulate problems			X		X
problem solving	to analyse problems				X	
problem solving	to explain problems			X		
Problem solving		**1**	**0**	**2**	**2**	**2**
analysis	to analyse and assess data	X		X	X	X
analysis	to extract important information				X	X
analysis	to interpret data				X	
analysis	to identify relevant principles				X	
critical thinking	to construct logical arguments					X
Analysis and critical thinking		**1**	**0**	**1**	**4**	**3**
communication	to present data analysis				X	
communication	to present complex information				X	X
communication	take part in scientific discussion in two languages orally and in writing			X		
communication	to interact with others			X		X
Communication		**0**	**0**	**2**	**2**	**2**
ability to develop	to develop methods/tools	X	X			
ability to develop	to develop guidelines		X			
Ability to develop		**1**	**2**	**0**	**0**	**0**
research	to conduct theoretical and experimental research		X			X
research	to conduct surveys		X			
research	reporting the results of research					X
independent work	independent investigation/performance				X	X
to execute	plan and execute a project					X
has experience	has experience in modelling natural, technological and social processes			X		
Research		**0**	**2**	**1**	**1**	**4**
teaching	to perform teaching		X			
Professional work		**0**	**1**	**0**	**0**	**0**

The content analysis of the learning outcomes: Master's degree in Psychology (frequency of concepts)

Skills	Short version of learning outcome	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
ability to assess	able to carry assessment of mental functions/psychological assessment/ assessment reports	X	X		X	
ability to evaluate	evaluate theories/professional activities			X	X	
Assessment and evaluation		**1**	**1**	**1**	**2**	**0**
ability to explain something	to explain psychological mechanisms/ problems		X		X	
discussions	to participate in professional discussions			X		
presentation	present research	X			X	X
Argumentation, discussion and presentation		**1**	**1**	**1**	**2**	**1**
analysis	analyse information/psychological theories/results of studies/existing problems/empirical results	X	X	X	X	
interpretation	interpret theories/empirical results		X		X	
ability to use different sources	use different sources (internet, e-libraries, books, scientific articles)	X				
Analysis		**2**	**2**	**1**	**2**	**0**
apply knowledge	apply acquired knowledge in professional work/scientific work			X	X	
ability to apply	apply acquired knowledge			X	X	
demonstrate knowledge	to demonstrate in-depth knowledge in psychology				X	
knowledge of something	to know the limits of applicability of psychological intervention/he theoretical essence and the practical possibilities of different approaches		X			
ability to apply	apply acquired knowledge			X	X	
understanding of something	principles of psychology/issues in psychology				X	
Apply knowledge		**0**	**1**	**3**	**5**	**0**
conduct research/studies	conduct empirical inquiry/research/ empirical studies/research studies	X	X		X	X
designing experiments	design and analysis of fMRI experiments					X
development of something	develop research project		X			X
writing research/reports	write reports				X	X
experimenting	to design simple imaging experiments					X
methodologies	develop own methodologies		X			
research	use appropriate techniques for research/identify research approaches and methods	X	X		X	X
reviewing	review journal articles					X
problem solving	create new approaches in problem-solving/to select an adequate set of research tools to solve a specific research problem		X		X	
to show appreciation	show appreciation of the design and analysis of fMRI experiments					X
Research		**2**	**5**	**0**	**4**	**8**
professional development	able to evaluate the need for self-education and professional development			X		
professional work	is able to work in the position of a psychologist etc.			X	X	
self-awareness	to evaluate the effects of their professional activities on the environment and the society/to take responsibility and initiative while working				X	

Skills	Short version of learning outcome	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
implement strategies	to formulate and implement an appropriate intervention strategy		X			
ethics	to understand and use principles of psychology ethics				X	
have necessary skills	to have the necessary skills for diagnosis, assessment etc. in work with individuals		X			
Professional work and development		**0**	**2**	**2**	**3**	**0**

The content analysis of the learning outcomes: Master's degree in Business Administration (frequency of concepts)

Skills	Short version of learning outcomes	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
ability to apply	apply complex business applications, fundamental business skills					X
ability to apply	to apply the latest theories				X	
Ability to apply		**0**	**0**	**0**	**1**	**1**
ability to integrate	to integrate business management functions, issues of global environment					X
ability to integrate	to integrate gained knowledge in different fields				X	
Ability to integrate		**0**	**0**	**0**	**1**	**1**
ability to use	to use different information sources	X				
ability to use	the use of new IT tools for support of business leadership		X			
Ability to use		**1**	**1**	**0**	**0**	**0**
analysis	to classify management decisions, marketing and innovation problems	X				
analysis	can analyse problems/situations (business, organisational etc./economic)			X		X
Analysis		**1**	**0**	**1**	**0**	**1**
argumentation, discussion and presentation	to present quality and risk management principles	X				
argumentation, discussion and presentation	to argue, explain and discuss	X			X	
making something	making suitable recommendations					X
Argumentation, discussion and presentation		**2**	**0**	**0**	**1**	**1**
decision making	ability to adopt decisions				X	
decision making	to make management decisions	X	X			X
Decision making		**1**	**1**	**0**	**1**	**1**
knowledge and understanding	to demonstrate in-depth knowledge of competitiveness of enterprises etc.				X	
knowledge and understanding	knows categories and terminology/contemporary theories and trends/problems in the sector/economics and management	X		X		
knowledge and understanding	knows how to plan time and resources	X				
knowledge and understanding	to understand public sector economics and finance relations to economics/theoretical approaches of economic policy			X		
knowledge and understanding	acquires systematic understanding and wide range knowledge in economics			X		
Knowledge and understanding		**2**	**0**	**3**	**1**	**0**
problem solving	to evaluate resources for problem solving	X				
problem solving	to solve business and management problems	X	X			X
Problem solving		**2**	**1**	**0**	**0**	**1**
professional work	develop one's competences and develop oneself professionally				X	
professional work	has acquired relevant tools for working at managerial or high level specialist positions			X		
professional work	to independently apply the latest theories				X	
Professional development		**0**	**0**	**1**	**2**	**0**
business skills	fundamental business skills in different fields (accounting, finance etc.)					X
business skills	people management etc.					X
Business skills		**0**	**0**	**0**	**0**	**2**

Skills	Short version of learning outcomes	Armenia	Bulgaria	Estonia	Latvia	United Kingdom
research	to carry out research in business and management/ prepare reports, present results of scientific research	X		X	X	X
ability to develop	to develop database/strategies	X				
Research		**2**	**0**	**1**	**1**	**1**