

# Bangladesh National Qualifications Framework (BNQF)

Ministry of Education

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## Acronyms

APEL	Accredited Prior Experiential Learning
AQRF	ASEAN Qualifications Reference Framework
ASEAN	Association of Southeast Asian Nations
BAC	Bangladesh Accreditation Council
BCWF	Bangladesh Center for Worker Federation
BEF	Bangladesh Employers' Federation
BMEB	Bangladesh Madrasah Education Board
BMET	Bureau of Manpower, Employment and Training
BNFE	Bangladesh Non-Formal Education
BNQF	Bangladesh National Qualifications Framework
BTEB	Bangladesh Technical Education Board
BUET	Bangladesh University of Engineering and Technology
CAS	Competency Assessment System
CAD	Course (Qualification) Accreditation Document
CBT	Competency-Based Training
CBT&A	Competency-Based Training and Assessment
CS	Competency Standards
DAE	Department of Agricultural Extension
DCCI	Dhaka Chamber of Commerce and Industry
DME	Department of Madrasah Education
DSHE	Department of Secondary and Higher Education
EQF	European Qualifications Framework
EU	European Union
GOB	Government of Bangladesh
HE	Higher Education
HEQEP	Higher Education Quality Enhancement Project
HSC	Higher Secondary Certificate
IBC	Industrial Bangladesh Council
ICT	Information Communication and Technology
IDEB	Institute of Diploma Engineers, Bangladesh
ILO	International Labour Organization
ISC	Industry Skills Council
IQACs	Institutional Quality Assurance Cells
MOE	Ministry of Education
NCCWE	National Coordination Committee on Workers Education
NQAS	National Quality Assurance System
NQFBHE	National Qualifications Framework of Bangladesh for Higher Education
NSC	National Skills Certificate
NSC	National Steering Committee
NSDA	National Skills Development Authority

NSQAS	National Skills Quality Assurance System
NTVQF	National Technical and Vocational Qualifications Framework
OBE	Outcome based Education
Pre-Voc	Pre-Vocational
QA	Quality Assurance
QF	Qualifications Framework
RTO	Registered Training Organization
SAG	Self-Assessment Guide
SCDC	Standards and Curriculum Development Committee
SHED	Secondary and Higher Education Division
SSC	Secondary School Certificate
TMED	Technical and Madrasah Education Division
TSC	Technical School and College
TVET	Technical and Vocational Education and Training
TWG	Technical Working Group
UCEP	Underprivileged Children's Educational Programs
UGC	University Grants Commission of Bangladesh
RPL	Recognition of Prior Learning
UoC	Unit of Competency

## **Foreword**

The Bangladesh National Qualifications Framework (BNQF) is an internationally benchmarked instrument for the development, classification and recognition of skills, knowledge and competencies along a continuum of agreed levels. It describes the learning outcomes and volume of learning of learners corresponding to each qualification.

The BNQF starts from Level 1 that corresponds to class VIII or generally junior secondary level and ends at Level 10, which corresponds to Doctoral level. The descriptors are stated in a comprehensive manner against each of these levels.

The BNQF sets national classification of qualifications and levels of learning based on learning outcomes categorized in three learning domains: knowledge, skills and attitudes. An academic program will only be accredited if it complies with the framework, and such accreditation ensures that the program is quality assured, i.e., it has fully satisfied all the quality standards related to the framework.

The BNQF underpins the quality assurance (QA) system and will be practiced by the Bangladesh Technical Education Board (BTEB)/ National Skills Development Authority (NSDA) for Level 1-6 and by the Bangladesh Accreditation Council (BAC) for Level 7-10.

## **Executive Summary**

The BNQF was developed based on the National Technical and Vocational Qualification Framework (NTVQF) adopted in the National Skills Development Policy (NSDP) 2011. The NTVQF provides for the recognition of skills and competencies acquired through formal education and training up to diploma levels, workplace trainings, and lifelong learning.

The BNQF is a result of a collaborative and consultative process guided by the National Steering Committee (NSC) chaired by the Hon'ble Minister, Ministry of Education and supported by seven Technical Working Groups (TWGs). There were four rounds of consultation and almost over 60 workshops and bilateral meetings with the TWGs, government agencies, professional organizations and the workers and employers groups.

The Technical and Madrasah Education Division (TMED) and the Secondary and Higher Education Division (SHED) combined their efforts to harmonize the Technical and Vocational Education and Training (TVET) and Skills, and Higher Education (HE) sectoral frameworks into the BNQF. Specifically, the Directorate of Technical Education (DTE) and the University Grants Commission of Bangladesh (UGC) firmed up the BNQF structure with technical support from the International Labour Organization (ILO)-Skills 21 Project and the World Bank (WB)-Higher Education Quality Enhancement Project (HEQEP), respectively. The BNQF National Steering Committee (NSC) approved the BNQF during the 3rd NSC meeting in June 2021.

The BNQF is an overarching framework intended to reform the education and training system of Bangladesh by producing competent workforce oriented to meet the needs of the labour market and the country's economic development. The BNQF standardizes qualifications consistent with national and international norms to improve the competitiveness and employability of graduates for domestic and international jobs. The BNQF defines open and flexible pathways to provide multiple entry points and progression routes to enable graduates to move within and across institutions, sectors and countries. The framework establishes national and international recognition, equivalence, comparability and consistency of qualifications.

The harmonized BNQF has ten qualification levels, in two parts: Part A, and Part B. Part A includes the six levels under TVET and Skills sector (BNQF Level 1 to 6). Part B includes the subsequent qualifications under the HE sector (BNQF Level 7 to 10). The Schools and



Madrasah sectors are connected by pathways to the qualifications under Part A and Part B. Lifelong learning connects all levels and sectors in the framework.

Level descriptors are essential to the BNQF; they describe the learning achievement at a particular level of the BNQF. The basic domains of the BNQF level descriptors are knowledge, skills and responsibility, inspired from the European Qualifications Framework (EQF) and the Bloom's Taxonomy of Objectives. In the case of HE qualifications, the level descriptors look at the above domains in the light of four learning outcomes – fundamental, social, thinking, and personal. Level descriptors do not only help to define and map the vertical level of complexity of a particular qualification, they also help to clarify a qualification's horizontal orientation, whether knowledge, skills or responsibility. Level descriptors are thus important reference points, aiming to reinforce the learning outcome orientation of education and training.

The BNQF provides several pathways to recognize individual achievements and award qualifications. In vertical pathways one moves between hierarchic levels in the same field. In horizontal pathways one moves between skills of similar responsibility in different fields of competence. In addition, the BNQF creates lifelong learning pathways where anyone with relevant requirements can enter any qualification at any level in the framework. The BNQF recognizes the pre-vocational qualifications as one of the options for entry to BNQF Level 1.

The Ministry of Education (MoE) is the peak organization that manages educational qualifications in Bangladesh through its two divisions: the Secondary and Higher Education Division (SHED); and the Technical and Madrasah Education Division (TMED). The TMED carries out its regulatory mandates for TVET and Madrasah through the BTEB; and Bangladesh Madrasah Education Board (BMEB), respectively. The DTE is responsible for the development, expansion and research in the field of technical education in Bangladesh. The SHED carries out its regulatory mandates for secondary education through the nine Board of Intermediate and Secondary Education. The BAC is responsible for recognizing and ensuring the quality of higher education programs and institutions along with the University Grants Commission (UGC). The BNQF provides that the NSDA shares the responsibility with the TMED in managing TVET qualifications.

The next steps of BNQF include the development of National Quality Assurance System (NQAS), legislation documents, implementation guidelines, and advocacy and capacity development programs for implementation.

## Section 1. Introduction

### 1.1. Background

The BNQF puts in place a comprehensive education and training system based on nationally-recognized qualification standards covering all qualifications in Bangladesh. The BNQF is developed based on the sectoral NTVQF adopted in the NSDP2011, which was developed under the leadership of the MoE. The NTVQF, implemented by the BTEB, allows for the recognition of skills workers whose have acquired in formal education and training, workplace trainings and all trainings provided by authorized public and private organizations.

The BNQF development takes place at an opportune time to critically review the NTVQF in order to be more responsive to address the emerging skill needs, and contribute to better workforce development in Bangladesh. With about ten years' experience since its implementation, the specifics of the NTVQF are now ripe for revision and incorporation into the BNQF.

The BNQF integrates the HE qualifications framework developed by the UGC. The BNQF aims to enhance the HE quality in Bangladesh by harmonizing the variations in instructions among HE institutions.

The BNQF is a result of a collaborative and consultative process guided by the NSC chaired by the Hon'ble Minister, MoE and supported by seven TWGs. There were four rounds of consultation and almost over 60 workshops and bilateral meetings over a period of four years from 2017 to 2021 with the TWGs, government agencies, professional organizations. A made it much stronger and coherent.

The DTE and the UGC spearheaded the development of the framework, with technical support from development partners - ILO Skills 21 Project and the WB-HEQEP, respectively. The TMED and the SHED worked on their respective sectoral domains -TVET and Skills, and HE- and integrated them into the BNQF.The BNQF NSC approved the BNQF during the 3<sup>rd</sup> NSC meeting in June 2021.

The BNQF is benchmarked against other National Qualifications Frameworks (NQFs) worldwide such as the NQFs of Australia, New Zealand, Malaysia, and Sri Lanka. The BNQF drew inspiration on labour mobility from the EQF, and the ASEAN Qualifications Referencing Framework (AQRf), the umbrella frameworks for European Union, and ASEAN member states respectively.

## **1.2. Objectives of the BNQF**

The objectives of the BNQF are to:

- (1). provide consistent national definition of qualifications in the schools and madrasah, TVET and skills, and HE sectors;
- (2). uphold lifelong learning and increase the employability of graduates through open and flexible qualification pathways, recognition of prior learning (RPL), and credit transfer;
- (3). promote horizontal and vertical mobility of workers within and between the institutions, sectors, and countries;
- (4). promote national and international recognition, equivalence, comparability and consistency of qualifications and mobility of graduates; and
- (5). define clear and flexible pathways with entry and exit points and progression routes.

## **1.3. Rationale**

The BNQF addresses the current fragmentation of qualifications by bringing the schools and Madrasah, TVET and skills, and HE sectors into one harmonized framework with standard definition of qualifications. The BNQF provides flexibility for individuals to acquire qualifications through vertical and horizontal pathways, lifelong learning, credit transfer, and bridging mechanisms; and comparability of qualifications through mutual recognition arrangements, among others.

The BNQF classifies qualifications by levels defined on the basis of learning outcomes – what the learners will be able to do at the end of a course or a program. This classification reflects the content and profile of qualifications, that is, what the holder of a certificate or diploma can demonstrate in terms of knowledge, skills and attitudes. The learning outcomes approach ensures that various education sectors are open to one another, thus allowing learners to move across institutions and sectors.

The BNQF provides certainty to industry about what a graduate of a particular level knows and is able to do. Where industry is directly involved as a partner in developing the NQF, the qualifications should reflect the needs of industry, the end user of the qualifications.

The BNQF establishes a pathway for the learners to move in and out of qualification levels, and gain formal recognition for the knowledge, skills and attitudes they have successfully demonstrated in each level, both locally and globally. Moreover, the framework supports lifelong learning through RPL and arrangements for mutual recognition of qualifications among institutions.

The elements of the BNQF include:

- (1). **Structure.** A hierarchy of 10-level qualifications framework that defines vertical progression within the qualifications system and horizontal progression across other qualifications systems. Another pathway, lifelong learning provides a means of validating learning that is achieved outside formal instructions, and through life's experience.
- (2). **Credit System.** A system that allows accumulation and transfer of 'credits' that enable learning to be transferred from one setting to another. A credit is a quantitative measurement that reflects the learning time and volume to achieve learning outcomes.
- (3). **Management and QA System.** A system that is in place to ensure that defined standards, practices, processes and products are met.

#### **1.4. Scope**

The BNQF is a fundamental tool in bringing about quality changes in the education system. The BNQF covers qualifications in the schools and Madrasah, TVET and skills, and higher education as well as lifelong learning. The BNQF develops pathways that provide improved access to qualifications and assist people to move easily and readily between the education and the training sectors and the job market. Furthermore, the purpose of the different sectors of education has been kept in mind while developing the framework (Table 1).

The primary and secondary school education prepare people for the world of work or for the next level of education. The pre-vocational level caters to the under privileged and low

educated groups in society. The Madrasah education provides Islamic education, which is considered as the education of Shariah.

The TVET and skills sector prepares people for specific jobs with skill sets that they can apply in the job market and/or to continue their learning in their chosen technical area.

The HE sector potentially serves two purposes: one is to prepare people to become the leaders in their technical fields and/or to make original contributions to their chosen field of study, and the other is to train professionals such as lawyers, doctors, pharmacists and engineers.

*Table 1 Purpose of education sectors*

<b>Pre Vocational</b>	<b>Primary School</b>	<b>Secondary School</b>	<b>TVET &amp; Skills</b>	<b>Higher Education</b>
<ul style="list-style-type: none"> <li>• Life/ social skills</li> <li>• Preparation to enter workforce</li> <li>• Team skills (working with others)</li> <li>• Language and literacy and numeracy strengthening</li> <li>• Preparation to enter vocational training (or secondary school)</li> </ul>	<ul style="list-style-type: none"> <li>• Life/social skills</li> <li>• Preparation for further education and training</li> <li>• Social and personal negotiation skills</li> <li>• Basic skills and knowledge to apply to life and work</li> <li>• Basic numeracy and literacy and language skills for further education and life</li> </ul>	<ul style="list-style-type: none"> <li>• Life/social skills</li> <li>• Preparation for further education and training</li> <li>• Basic knowledge and skills to provide a foundation for work and life</li> <li>• Citizenship knowledge and skills (to contribute to social, religious and cultural life of the nation)</li> </ul>	<ul style="list-style-type: none"> <li>• Preparation for operator positions</li> <li>• Preparation for vocations – hard and soft skill positions</li> <li>• Skills transfer to progress through a career</li> <li>• Further vocational or academic education and training</li> </ul>	<ul style="list-style-type: none"> <li>• Further Study</li> <li>• Preparation for professions</li> <li>• Contributions to professions and academia</li> </ul>

## Section 2. The BNQF Structure, Levels and Level Descriptors

### 2.1. The BNQF Structure

The BNQF structure includes 10 levels of qualifications, which are based on increasing complexity of level descriptors involving the learning domains of knowledge, skills, and responsibility. There are three parts of the BNQF structure: (a) qualification levels indicated by numbers from 1 to 10 and corresponding names of the qualifications, (b) qualification pathways connecting the levels, and (c) level descriptors describing the levels in terms of learning outcomes. Figure1 presents the BNQF structure.

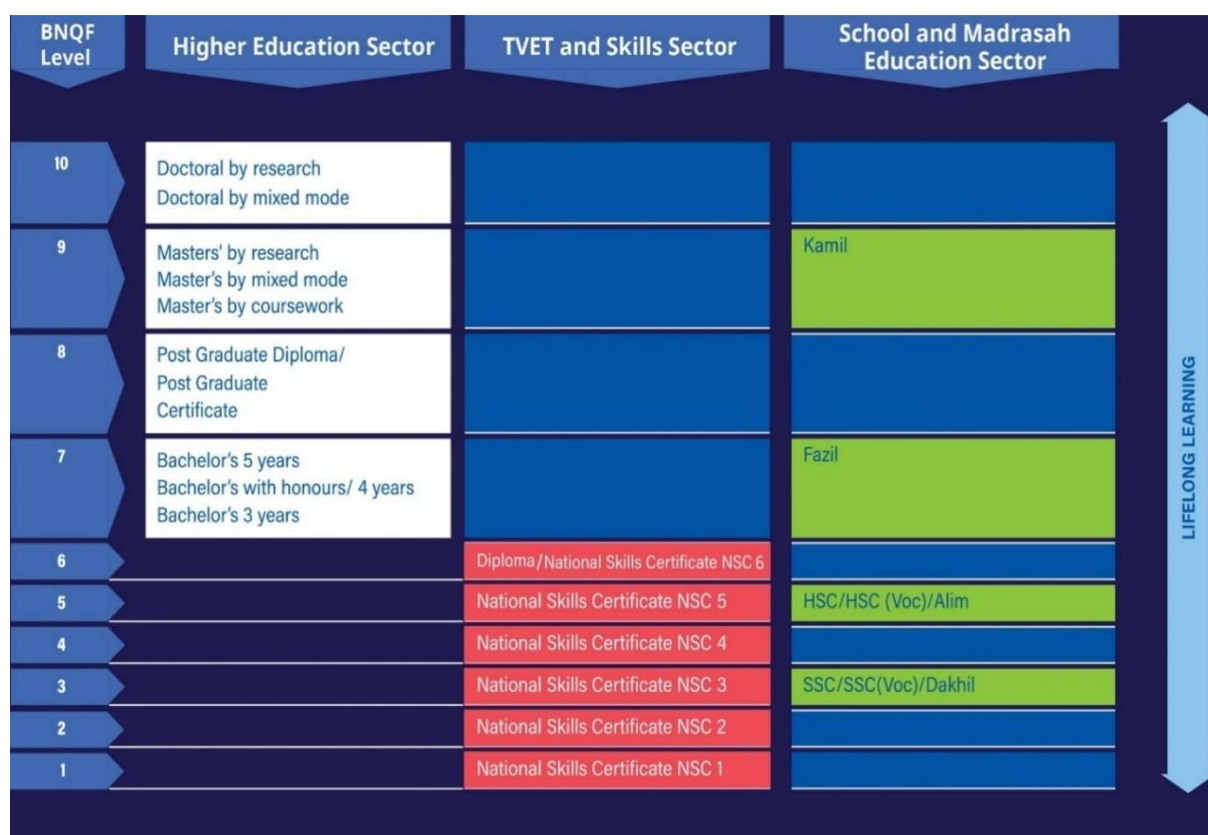


Figure 1 BNQF structure

The TVET and Skills sector covers the first six levels, BNQF Level 1 to 6, which include 6 skills certificates and one diploma programs. The HE sector covers the last four levels, BNQF Level 7 to 10 which include bachelor's, postgraduate diploma, master's, and doctorate. The Schools sector covers secondary school certificates (SSC), and higher secondary certificates (HSC) in different streams. Similarly, the madrasah education comprises various levels such as Dakhil, Alim, Fazil, and Kamil. The BNQF integrates these streams through a solid QA system. Lifelong learning covers any qualification at any level in the BNQF. Through lifelong

learning, anyone can seek recognition of the knowledge, skills and attitudes he/she acquired outside as well as inside the formal schooling system and through his/her life's experiences.

## **2.2. The BNQF Levels**

The BNQF qualifications consist of certificates, diplomas and degrees. There may be one or more qualifications positioned at the same level. The qualifications may be broadly comparable in terms of general levels of difficulty, and volume of learning, but may not have the same purpose or specific learning outcomes. The BNQF levels are further elaborated below:

**BNQF Level 1.** The National Skill Certificate (NSC) at this level is the initial level qualification in the BNQF that prepares learners of any age to become basic skilled workers. The graduates at this level will have basic competencies for entry level works, and/or further learning.

**BNQF Level 2.** The NSCs from levels 2 to 4 recognize increasing levels of competencies for skilled workers. The NSC 2 prepares learners to work as semi-skilled workers. The graduates at this level will have competencies to perform primarily routine works and use this level as a pathway to further learning.

**BNQF Level 3.** The qualification at this level includes NSC 3, and Secondary School Certificates (SSC). The NSC 3 prepares learners to work as skilled workers.

At the SSC level, there are three main streams of courses: a general stream, religious stream (Madrasah), and a vocational stream. Each stream offers options for further curricular specializations. The SSC and Dakhil under the schools and madrasah sectors cover a wide range of subjects that prepare children and young people for more specialized study at HSC and higher education. The SSC also establishes the foundation for lifelong learning and human development upon which education systems may then expand further educational opportunities.

The SSC (Voc) covers a broad range of competencies to perform skilled works and use this level as a pathway for further learning. Of the three streams, the SSC (Voc) graduate is awarded two certificates: a Secondary School Certificate, and an NSC 3. The graduates in the other two streams will receive their respective Secondary School Certificates. They will go through some form of bridging program if they intend to obtain the NSC 3.

**BNQF Level 4.** The NSC 4 prepares learners to work as highly skilled workers, and to acquire further learning. The graduates at this level will have broad range of competencies for specialized skills and full craftsmanship/ workmanship, and use this level as a pathway for further learning

**BNQF Level 5.** The qualifications at this level include NSC 5, HSC, and Alim. The NSC 5 prepares learners to become supervisors. The graduates at this level will have broad range of competencies to undertake specialized works and use this level as a pathway for further learning.

HSC and Alim recognize individuals with knowledge, skills and values for diverse pathways to further learning, work and effective participation in civic life. They are typically designed to complete secondary education in preparation for HE or provide skills relevant to employment, or both.

Just like the SSC (Voc), the HSC (Voc) graduate is awarded two certificates: a higher secondary certificate, and an NSC 5. The graduates in the other two streams will receive their respective secondary school certificates. They will go through some form of bridging program if they intend to obtain the NSC 5.

**BNQF Level 6.** The qualification at this level is either NSC 6 or Diploma. The NSC 6 is developed for higher level at a specific occupation/discipline.

The Diploma has a wider theoretical base than a certificate, and provides broad knowledge and skills for highly specialized works including supervision and management, and/or further learning. The diploma prepares learners to work as mid-level managers.

The NSC 6 or Diploma interfaces with the HE qualifications, therefore allows a student to leave the TVET and Skills qualifications, and move to HE levels.

**BNQF Level 7.** There are three modes of Bachelor's: 5-year Bachelor's, 4-year Bachelor's with or without honours and 3-year Bachelors. 5-year Bachelor's must fulfil a minimum 160 graduating credits requirement, 4-year Bachelor's with or without honours must fulfil a minimum 140 graduating credits requirement and 3-year Bachelors must fulfil a minimum 120 graduating credits requirement.



All Bachelor level programmes generally provide the basis for progression into a Master's degree, or a Postgraduate Certificate or Postgraduate Diploma degree with relevant post-graduation work experience as required.

**BNQF Level 8.** The two qualifications at this level are incorporated largely to support lifelong learning pathways provided under the framework as they enable learners in acquiring advanced knowledge over that of a Bachelor's but below that of a Master's. These qualifications link Bachelor level graduates to pursue a Master's level qualification by providing the critical bridge of skills and competencies. The minimum graduating credits are 30 and 40 for Postgraduate Certificate and Postgraduate Diploma respectively.

**BNQF Level 9.** Master's qualification is typically an extension of study undertaken at the Bachelor's level in similar or corresponding discipline or a specialization based on extensive professional practice. There are three modes of Master's: by Coursework, by Mixed-mode and by Research. A Master's by Research will be a thesis/dissertation-based qualification and may or may not have a taught component. However, the taught component will not be credit bearing and students will be assessed solely on their thesis/dissertation. A Mixed-mode Master's has a minimum 20 credits taught component and a research component involving a thesis/dissertation. A student's assessment is based on his/her performance in both the components. Finally, a Master's by Coursework involves taught courses to a minimum of 40 credits. The duration at this level will range between one to two years of full-time study. The learner profile and level descriptors in the appendices are intended to be inclusive of the various types of Master's unless otherwise indicated.

**BNQF Level 10.** This is the highest level of learning in the framework leading to the award of a doctoral degree. It involves substantial and independent research and scholarship in advanced areas of knowledge and emerging issues. The conduct of research resulting in a thesis in a field of study is vital at this level. The graduate should provide effective leadership in his/her field of research, share ideas, and adhere and deal with complex ethical issues. S/he should continue to contribute towards social, technological and cultural progress in the academic and professional contexts.

While the doctoral level does not stipulate the minimum graduating credits, the credit requirement in the case of PhD by mixed mode, where candidates will complete a minimum taught course before pursuing a thesis is 30. The minimum duration is normally a 3-year full

time study. All doctoral level qualifications will have a thesis as final graduating criteria. The qualifications titles are in the form of a PhD for research doctorates. Applied or professional doctorates may use nomenclatures such as EdD, DEng or other descriptors relevant to the field concerned.

### **2.3. Level Descriptors**

Each qualification level is described in terms of level descriptors that are internationally accepted because they are appropriate for both competency-based and knowledge-based learning programs. Level descriptors are used by curriculum developers to design learning and assessment programs for each level. They can also be used by learners and employers to determine what knowledge, skills and attitudes a person can apply at that level.

The domains of the level descriptors as described below:

- (a) Knowledge may be factual or theoretical. Factual knowledge is semantic or generic knowledge. The knowledge domain provides basic information, specific details and elements within any domain. This can be learned through exposure, memorization, and repetition. Theoretical knowledge is knowledge of why something is true. It teaches reasoning, techniques and theory of knowledge.
- (b) Skills may be cognitive or practical. Cognitive skills involve the use of logical, intuitive and creative thinking as well as written and oral communication and information literacy. Practical skills involve manual dexterity and the use of methods, materials, tools and instruments.
- (c) Responsibility is the ability of the learner to apply knowledge and skills autonomously and with responsibility. This domain relates to the nature of working relationships, levels of responsibility for self and for others, managing change, and ways in which individuals work and the impact this has on the job and on other individuals.

The HE level descriptors look at knowledge, skills and attitudes but in light of four domains of learning outcomes: fundamental, social, thinking, and personal. The TVET and Skills descriptors look at knowledge, skills and responsibilities where responsibilities are one way of looking at attitudes. The level descriptors of these frameworks are based on Bloom's Taxonomy, which is the common reference of most frameworks especially the EQF and the NQFs in the European countries. The three main domains of Bloom's Taxonomy are

cognitive (knowledge), psychomotor (skills), and affective (attitudes). Figure 2 shows how the level descriptors of TVET and Skills and HE sectors align with the domains of Bloom’s Taxonomy. The BNQF level descriptors extract the essence of each level in terms of knowledge, skills and attitudes and use the term responsibility instead of attitudes.

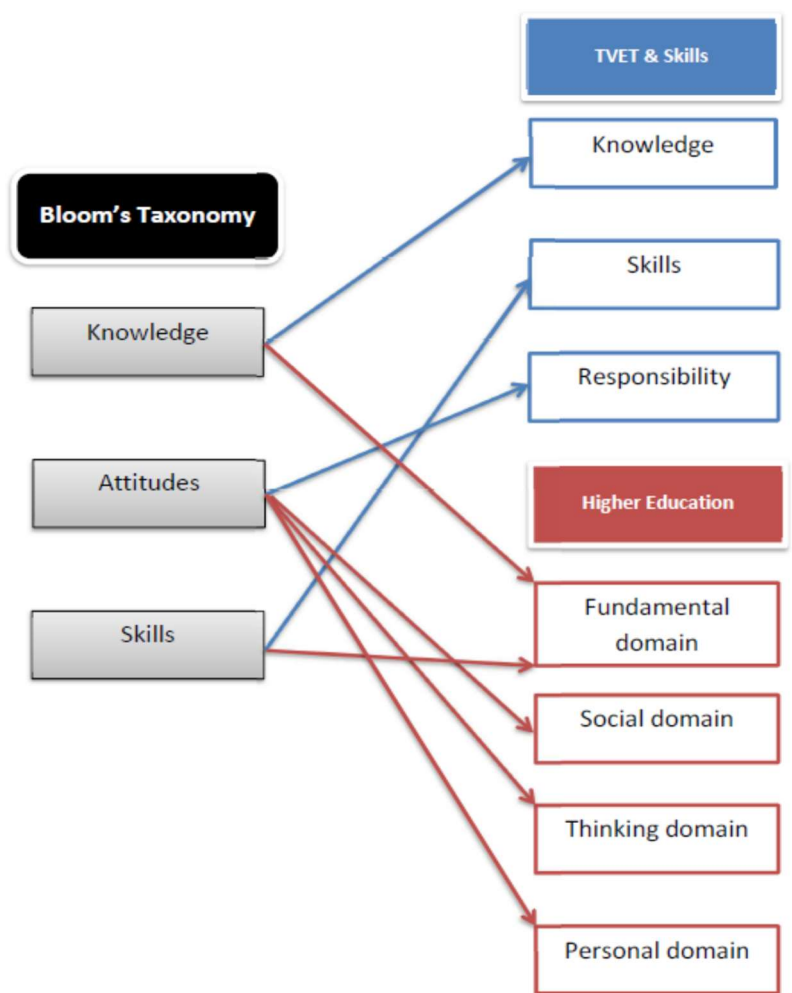


Figure 2 Learning outcome domain alignment between TVET& Skills and HE

The level descriptors for the TVET and Skills, and HE qualifications are found in the Appendix-1.

#### 2.4. The BNQF Pathways and Lifelong Learning

The BNQF is “outcome-based”, that is, it describes the knowledge, skills and attitudes a person applies either for work or for further learning. The BNQF does not prescribe what a person learns at each level. Rather, it describes what a person can do in terms of learning outcomes. The BNQF generates various pathways (Figure 3) with entry and exit points that recognize individual achievements. It provides links at every qualification level using a combination of credits and learning outcomes or competency measurement. This linking



### **2.4.1 Vertical Pathways**

- (a) The TVET and Skills qualifications are vertical until BNQF Level 6 (Diploma/NSC 6) with a qualification at a lower level usually required for entry to the next level.

The BNQF stipulates any of the following minimum entry requirements for BNQF Level 1 (NSC 1): Class 8 pass or evidence of equivalent achievement, or pass in a challenge test in language, literacy and numeracy skills, or pass in a relevant prevocational program.

The candidates at NSC 6 or Diploma need to pass a rigid selection procedure, and a set of entry requirements as there is a significant increase in the knowledge and skills component from the previous level. The requirements may include: NSC 5 pass; challenge test and competency interview for knowledge and skills; or HSC/ SSC pass. In addition, the candidates may undertake a bridging program consisting of gap training on the skills relevant to their intended programs as well as general subjects such as English, Mathematics, Science, and Information Technology. The candidates for NSC 5 may need to pass the same selection procedure as when they seek entry to NSC 6.

- (b) The Schools qualifications (SSC and HSC) are also vertical. The SSC and HSC do not have well defined equivalence with TVET qualifications though they provide entry points to qualifications at TVET and HE. The Madrasah qualifications are also vertical. There is established equivalence among the qualification levels of school and madrasah education such as SSC and Dakhil, and HSC and Alim. The SSC (Voc) and HSC (Voc) integrate the NSC 3 and NSC 5 respectively and the graduates obtain dual certificates.
- (c) In the HE sector, the progression is vertical from BNQF Level 7 (Bachelor's) to Level 10 (doctoral) with a qualification at a lower level usually required for entry to the next level. According to the HE academic pathway, it is possible to skip a level with adequate experience, for example, from Bachelor's it is possible to go to Master's.

### **2.4.2 Horizontal Pathways**

- (a) The BNQF structure provides a horizontal pathway from Schools sector to TVET and Skills. Some forms of bridging programs may be implemented to set the

equivalence. For HSC to be equivalent to NSC 5 (and BNQF Level 5), and SSC to be equivalent to NSC 3 (and BNQF Level 3) some bridging programs may be needed to train students in skills that are lacking in the general school education stream. Such bridging programs would allow students to switch from one sector to another in pursuit of the desired qualification. It is to be noted that an HSC qualification may serve as an entry point to a Bachelor's degree in HE or a Diploma in TVET qualification, because such pathways have been well established in Bangladesh as well as in other parts of the world

- (b) According to the academic pathway of HE, the BNQF Level 6 (Diploma) may serve as an entry point to the Bachelor's level. This horizontal pathway builds a connection between the two sectors. The competencies acquired in the Level 6 programs could be credited towards Level 7 (Bachelor's) programs. From Level 6 to Level 7 as well as from various years of Level 6 to various years of Level 7, entry requirement will be considered by taking into account lifelong learning, RPL, credit transfer, credit waiver, bridging programs, and other systems of validation and recognition.
- (c) Alim qualifications may serve as an entry point to a Bachelor's degree in HE or a Diploma in TVET qualification. There are also entry points from Fazil to Post-Graduate Diploma and Master's, and Kamil to Doctoral qualifications in HE. The BNQF structure suggests bridging programs to set the equivalence between NSC 3 and Dakhil, and NSC 5 and Alim.

### **2.4.3 Lifelong Learning Pathways**

The BNQF provides flexible pathways for entry to any qualification at any level through the lifelong learning pathways. Lifelong learning refers to all learning activities undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-related perspective. Some examples of lifelong learning can be – learning computer programming or a second language via online program or distance education, leaning a new sport, and learning to cook in a classroom or a restaurant setting. The concept of lifelong learning, as a recognized way of gaining knowledge, skills and attitudes, is fairly new in the Bangladesh education system. The definition, process

and possible examples of lifelong learning need to be thoroughly discussed and identified in order to ensure proper integration of all sectors of education with the BNQF.

There will be open entry and no barriers for participants from informal sectors through RPL at any level of BNQF. It is worth noting that the BNQF provides the minimum requirements of completing each level and graduation from one level to the next. Institutions can set their own requirements for entry and exit based on these minimum requirements and approved by the decision-making authority of the institution such as academic council and syndicate in case of HE institutions. Another point to consider is that there are many TVET courses and programs that are outside the purview of the NTVQF. These courses and programs, as listed in the BTEB Act 2018 (dated 25 July 2019), have diversified entry requirements and durations. These courses and programs need to be aligned with various levels of the TVET and Skills sector under the initiative of the BTEB.

#### **2.4.4 Entry through Pre-Vocational Qualifications**

In earlier practices, the pre-vocational level programs will be considered to enter BNQF Level 1 for the learners who do not meet the entry criteria of NSC 1 (BNQF Level 1). Pre-vocational level programs not only open up additional career pathways for students pursuing general education but also address the needs of under-privileged groups and individuals with low levels of education. Previously, individuals without a Grade 8 or above cannot access the formal education system as they did not meet the prerequisite education level. With the pre-vocational levels, the learner will have a pathway to enter formal training. The pre-vocational courses will be implemented by BTEB as per the current provision of BTEB Act.

### Section 3. BNQF Management

The MoE is the apex organization responsible for the management and Quality Assurance (QA) of qualifications, and education and training providers in Bangladesh. The MoE operationalizes these functions in its two divisions: the TMED, for TVET and Skills, and Madrasah; and the SHED, for secondary and HE.

The TMED carries out its regulatory mandates for TVET and Skills through the BTEB and the Directorate of Technical Education (DTE); and for Madrasah education through the Bangladesh Madrasah Education Board (BMEB). The BTEB is responsible for the implementation and periodic review of the TVET component of the BNQF. A new act, the BTEB Act of 2018<sup>1</sup> reiterates the power of the BTEB to organize, supervise, regulate, control and develop technical and vocational education and training in Bangladesh. The DTE is responsible for the development, expansion and research in the field of TVET in Bangladesh. The DTE supervises the implementation of formal TVET programs by public and non-government technical schools and colleges, polytechnic institutes, non-government vocational institutions, non-government training institutions, and technical teachers' training colleges. The Bangladesh Madrasah Education Board (BMEB) manages the Madrasah education in Bangladesh. The BMEB awards madrasah qualifications Dakhil, Alim, Fazil, and Kamil, and regulates Madrasah institutions.

The SHED carries out its regulatory mandates for secondary education through the nine Board of Intermediate and Secondary Education situated in different locations in the country. The boards conduct public examinations, and award certification of SSC and HSC qualifications. The boards provide recognition to private sector educational institutes.

The BAC is responsible for recognizing and ensuring the quality of higher education programs and institutions along with the UGC. The BAC is a statutory autonomous body, established under the Bangladesh Accreditation Council Act of 2017. The BAC is required to coordinate policies across government agencies and ensure adequate involvement of all stakeholders. The UGC provide permission to the private universities to operate, and maintains the autonomous nature of the universities.

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<sup>1</sup>Enacted and approved in November 2018 for modifying, amending, changing and updating the Technical Education Act of 1967 and Technical Education Regulations of 1975



The BNQF provides that the NSDA shares the responsibility with the TMED in managing TVET qualifications. The NSDA is established under NSDA Act 2018 and NSDA Rules 2020 to act as the coordinating body that sets and coordinates the implementation of the National Skills Development Policy, and its strategies and plans.

Whilst a paramount body is ideal, it is not feasible at the current time. There are several reasons for this. Firstly, the cost of setting up a new oversight body is difficult to justify. Secondly, there are already regulatory bodies responsible for schools, TVET and skills, and HE. Some of these bodies are less than two years old, and it would take any new body some time to be set up and institutionalized.

Therefore, the abovementioned bodies agree to be bound by the principles of a QA system to manage the BNQF and various elements of the QA system that will help to implement the BNQF. The BAC and the UGC have set their own procedures for regulating qualifications in the HE sector. The BNQF NSC will appoint a high-level committee to define the working mechanisms of the two central agencies for the TVET and Skills sector, and will develop the actionable strategies to implement the agreed institutional arrangements.

## Section 4. Next Steps for Implementation

- (a) **Review the National Quality Assurance System (NQAS).** Quality underpins all components of the BNQF. The five existing NTVQF National Skills Quality Assurance System (NSQAS) Manuals designed in 2011, will be revised to adjust to the BNQF TVET and Skills sector. Additionally, the next actions will include quality assurance in the HE qualifications, and lifelong learning.
- (b) **Develop BNQF legislation documents and/or amendments to the relevant law.** It is important to have a legislative basis to ensure that the BNQF is in existence and in effect, and to authorize agencies the responsibilities of implementing and guarding the framework. Aside from the above, the BNQF legislation documents defines the BNQF ownership and management, and directs implementers to adhere to standards and qualifications, and allocates resources for its implementation.
- (c) **Develop the BNQF Implementation Guidelines.** The BNQF requires an Implementation Manual to describe the key policy, processes and instruments to be applied in all operations leading to the awarding of qualifications, including the role of agencies mandated to issue qualifications. In addition, the Implementation Manual will define the industry roles in providing labor market intelligence to ensure alignment of educational programs to job requirements. The Implementation Manual will provide instructions on developing the BNQF information system which records on promulgated qualifications with the appropriate details and format into the BNQF qualification register. The BNQF guidelines will adopt internationally benchmarked policies and processes to enhance the credibility of qualifications obtained from qualification awarding bodies in Bangladesh.
- (d) **Develop an advocacy and capacity development programme for the BNQF.** In addition to the BNQF legislation, a successful BNQF implementation needs voluntary “buy-in” and commitment of the stakeholders. Thus, an advocacy and capacity development program is important to communicate so that all stakeholders in the public and private sectors are aware of the framework and be able to use it. The capacity building programs encourage the Bangladesh people to take action by themselves, thus breeding sustainability.

## Glossary

- **Accreditation-** A certification granted/awarded for a specific period of time by the Council after examining and assessing an academic program or higher education institution of higher education which provides programs in accordance with the quality assurance mechanism and the Framework.

It is an assessment of how the organization applies its quality assurance system to the delivery of a particular program of learning. It is the assessment of the organization's ability to provide a learning program that actually meets the competency standards of some of the units of competency included in a TVET and Skills qualification or the entire qualification.

- **Accreditation of Prior (Certificated) Learning (APL)-** Learning that is formally assessed and certified by a Bangladesh education/training institution or from outside.
- **Accreditation of Prior Experiential Learning (APEL)-** The formal recognition of prior learning gained through experience, including paid or unpaid work, self-directed study or leisure pursuits.
- **Adult learning (andragogy)-** Those processes and practices specific to adults gaining knowledge or expertise, based on self-directed learning.
- **Articulation-** The process of comparing the content of courses from accredited programmes for the purpose of credit transfer.
- **Assessment evidence-** The information gathered during the assessment process that determines whether an individual or group is competent. In CBT assessments, evidence is directly linked to the demonstration of competence and the ability of the trainee to perform to a certain standard.
- **Assessments-** A systematic process of measuring/evaluating and documenting an individual or group's level of knowledge, skills and attitudes.
- **Competency Standards-** Benchmarks to assess the knowledge, skills and attitudes required by an individual in order to perform in the workplace. These benchmarks are combined together to form units of competencies.

- **Competency-** The demonstrated ability to apply knowledge, skills and attitudes in order to successfully complete work activities to a defined standard of performance, as expected in a real-life workplace environment.
- **Competency-based training (CBT)-** A structured training and assessment system that allows individuals to acquire skills and knowledge in order to perform work activities to a specified standard.
- **Confidence Certificate-** Certificate granted by the Council, in accordance with the provisions of the Bangladesh Accreditation Council Act-2017 in favour of a program or of an institution of higher education under supervision, which is striving to attain the benchmarked standards of education and complying with the Framework.
- **Credit-** The unit of measuring students' academic load, usually based on number of classroom hours, directed and non-directed independent learning, preparation for and taking assessments and other related activities that lead to the achievement of the learning outcomes stipulated at a level of study in the Framework. The calculation of credit is based on notional hours.
- **DACUM-** A quick and cost-effective method of occupational analysis that uses a focus group to facilitate a story-boarding process in order to conduct a thorough analysis of a given occupation.
- **Graduating Credits-** The minimum number of credits required to complete a level of study leading to a degree.
- **Higher Education Institution-** An organization approved by the appropriate authority in Bangladesh, providing tertiary level education in Bangladesh both in private and public sector, leading to the award of bachelor or above degree.
- **Learning Outcomes-** Statements of what the learner must be able to do at the end of a course or a programme of study.
- **Level-** Academic or related level.
- **Lifelong Learning-** Providing or using or recognizing both formal and informal learning opportunities in order to foster continuous development and improvement of knowledge and skills needed for employment and personal fulfilment.

- **Modular/Unitized System-** A system of teaching and measurement of a course of study, typically one that lasts for a structured study period such as a semester/ an academic term. Students receive grades and academic credits after the completion of the subject or course at the end of the study period.
- **National Qualifications Framework-** A formal national structure for classifying qualifications by level, based on learning outcomes and descriptors stated in BNQF and the Framework stated in the Clause 15 of Bangladesh Accreditation Council Act 2017.
- **Notional Hours-** The estimated learning time taken by an 'average' student to achieve the specified learning outcomes of a program or a course. They are therefore not a precise measure but instead provide students with an indication of the amount of teacher-student interaction (face to face, blended and online), self-study and degree of commitment expected from them in achieving the required learning outcomes.
- **On-the-job training (OJT) or workplace-based training (WBT)-** Refers to learning that occurs when workers, including apprentices, produce real goods and services. OJT refers to training undertaken at the workplace as part of practical training provided by TVET or other educational institutions.
- **Professional Education-** A formalized approach in specialized training through which participants acquire content knowledge and learn to apply techniques required for a particular profession. It involves the translation of learning into practice, and intends to prevent occupations and professionals from becoming outdated.
- **Program-** Academic activities based on a structurally designed curriculum.
- **Qualification Level-** The level of qualification to which a program of study is attached. The Framework is structured around *levels* of descriptive criteria, with formal qualifications aligned to appropriate *levels*. A qualification level shows employers, teachers and learners what is taught, learnt and achieved.
- **Quality Assurance-** The process of determining the quality of all activities of a higher education institution or program or course based on fixed standards and criteria. It is a process to determine the development and competency of that institution.

- **Self-directed learning-** Learning where students initiate their own learning process by identifying their learning needs, goals and strategies, and evaluating their learning outcomes.
- **Standard detailed task analysis-** A process to analyze tasks by breaking them into elements that help identify performance steps and standards, the tools and equipment needed, related knowledge, safety and health information, etc., in order to develop instructional materials.
- **Subject-** A branch of knowledge studied or taught in a school, college, or university. It also means a course.
- **Technical and Vocational Education and Training (TVET)-** Comprises of education, training and skills development relating to a wide range of occupational fields, production, services and livelihoods. TVET, as part of lifelong learning, includes work-based learning and continuing training and professional development which may lead to qualifications. TVET also includes a wide range of skills development opportunities attuned to national and local contexts. Learning to learn, the development of literacy and numeracy skills, transversal skills and citizenship skills are integral components of TVET.
- **The Act-** The Bangladesh Accreditation Council Act 2017, Bangladesh Technical Education Board Act 2018 and National Skills Development Authority Act 2018.
- **TVET institutions-** Include TVET schools, colleges, polytechnic institutes, and centres, together with national, local, and sectoral bodies and councils for TVET providing TVET and skills.
- **Units of competency-** The building blocks of competency standards that identifies workplace requirements, as well as the knowledge and skills of the competency (including language, literacy and numeracy).

## Appendix 1- BNQF Levels and Level Descriptors

Level	Domains	Level Descriptors
<b>BNQF Level 1</b>	<b>Knowledge</b>	Elementary understanding of Ability to interpret the underpinning knowledge in a specific study area, able to interpret common occupational terms and instructions.
	<b>Skills</b>	Specific Basic skills required to carry out simple tasks. Interpret occupational terms and present the results of own work within guided work environment/ under supervision.
	<b>Responsibilities</b>	Work under direct supervision in a structured context with limited range of responsibilities.
<b>BNQF Level 2</b>	<b>Knowledge</b>	Basic understanding of underpinning knowledge in a specific study area, able to interpret and apply common occupational terms and instructions.
	<b>Skills</b>	Skills required to carry out simple tasks, communicate with his team in the workplace presenting and discussing results of his work with required clarity.
	<b>Responsibilities</b>	Work or study under supervision in a structured context with limited scope of manipulation.
<b>BNQF Level 3</b>	<b>Knowledge</b>	Moderately broad knowledge in a specific work or study area, able to perceive ideas and abstract from drawing and design according to workplace requirements. .
	<b>Skills</b>	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools. Communicate with his team and limited external partners upholding the values, nature and culture of the workplace.
	<b>Responsibilities</b>	Work or study under supervision with considerable autonomy. Participate in teams and responsible for group coordination.
<b>BNQF Level 4</b>	<b>Knowledge</b>	Broader knowledge of the underlying, concepts, principles, and processes in a specific Work or study area, able to solve problems to new situations by comparing and applying acquired knowledge.
	<b>Skills</b>	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and information. Communicate using technical terminology and IT technology with partners and users as per workplace requirements.
	<b>Responsibilities</b>	Work under minimal supervision in specific contexts in response to workplace requirements. Resolve technical issues in response to workplace requirements and lead/guide a team/ group.
<b>BNQF Level 5</b>	<b>Knowledge</b>	Broad knowledge of the underlying, concepts, principles, and processes in a specific Work or study area, able to scrutinize and break information into parts by identifying motives or causes.
	<b>Skills</b>	Broad range of cognitive and practical skills required to generate solutions to specific problems in one or more work or study areas. Communicate practice-related problems and possible solutions to external partners.
	<b>Responsibilities</b>	Work under guidance of management and self-direction to resolve specific issues. Lead and take responsibility for the work and actions of group/team members. Bridge between management.
<b>BNQF Level 6</b>	<b>Knowledge</b>	Comprehensive actual and theoretical knowledge within a specific Work or study area with an awareness of the validity and limits of that knowledge, able to analyze, compare, relate and evaluate.
	<b>Skills</b>	Specialized and wider range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems. Communicate professional issues and solutions to the team and to external partners/users.

Level	Domains	Level Descriptors
	<b>Responsibilities</b>	<p>Work under broad guidance and self-motivation to execute strategic and operational plan/s.</p> <p>Lead lower level management. Diagnose and resolve problems within and among work groups.</p>
<b>BNQF Level 7</b>	<b>Fundamental Skills</b>	<p>3-year Bachelor's</p> <ol style="list-style-type: none"> <li>1. demonstrate an understanding of a broad range of moderately complex, technical and theoretical knowledge to address varied, complex task/work;</li> <li>2. identify, interpret, apply and evaluate concepts, theories and skills within a defined context of a subject area/field of study, discipline or work;</li> <li>3. apply knowledge and skills in addressing issues/solving problems in a well-defined area of non-routine and non-predictable work/task with minimal supervision;</li> <li>4. supervise practices and process operation in his/her respected field of specialization;</li> <li>5. review and make adjustments to operations under minimal supervision in his/her field; and</li> <li>6. display advanced digital literacy which is adequate to perform complex task.</li> </ol> <p>4-year and 5-year Bachelor's</p> <ol style="list-style-type: none"> <li>1. demonstrate knowledge and critical understanding of the well-established principles of his/her field of study, and of the way in which those principles have developed;</li> <li>2. 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;</li> <li>3. apply knowledge and skills in addressing issues/solving problems with minimal supervision;</li> <li>4. evaluate critically the appropriateness of different approaches to solving problems in his/her field of study;</li> <li>5. support supervision of junior staff via a mentor or a leader/manager; and</li> <li>6. display advanced digital literacy which is adequate to perform complex tasks and bring about solutions.</li> </ol>
	<b>Social Skills</b>	<p>3-year Bachelor's</p> <ol style="list-style-type: none"> <li>1. communicate and interact effectively and clearly, ideas, information, problems and solutions as a team to peers, experts and non-experts in Bangla and English;</li> <li>2. demonstrate appreciation of cultural diversity in Bangladesh;</li> <li>3. work in a team both professionally and as a member of the larger community; and</li> <li>4. display advanced civic literacy and knowledge, as well as exercising civic rights and obligations at a local, state and national level.</li> </ol> <p>4-year and 5-year Bachelor's</p> <ol style="list-style-type: none"> <li>1. communicate and interact effectively and clearly, ideas, information, problems and solutions as a team to peers, experts and non-experts in Bangla and English;</li> <li>2. express her/himself fluently and spontaneously in English and Bangla;</li> <li>3. use language flexibly and effectively for social, academic and professional purposes;</li> <li>4. produce clear, well structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices in advanced proficiency level of Bangla and English;</li> <li>5. demonstrate the ability to incorporate entrepreneurial skills in planning daily activities; and</li> <li>6. display advanced civic literacy and knowledge, exercising civic rights and</li> </ol>



Level	Domains	Level Descriptors
		obligations at all levels as well as participating in changes for the improvement of Bangladesh society.
	<b>Thinking Skills</b>	<p><i>3-year Bachelor's</i></p> <ol style="list-style-type: none"> <li>work under broad supervision demonstrating a substantial degree of personal responsibility and within a structured work context;</li> <li>exhibit a degree of personal responsibility and autonomy under broad guidance and directions within well-defined and non-routine context of study or work activities performed in a wide variety of contexts;</li> <li>demonstrate supervisory, collaborative skills and responsibility for work performance of others;</li> <li>demonstrate the appreciation of problems in a moderately wide range of work and propose solutions; and</li> <li>have professional knowledge and practical skills in both technical and management to lead a team in inexperienced environment.</li> </ol> <p><i>4-year and 5-year Bachelor's</i></p> <ol style="list-style-type: none"> <li>exercise very substantial degree of autonomy and often significant responsibility in making judgments/ decisions towards the management of self, others and for the allocation of substantial resources; and</li> <li>demonstrate professional knowledge and practical skills in both technical and management to lead a team in inexperienced environment.</li> </ol>
	<b>Personal Skills</b>	<p><i>3-year Bachelor's</i></p> <ol style="list-style-type: none"> <li>demonstrate self-direction for learning and career development;</li> <li>solve problems by taking into account social, professional and ethical issues; and</li> <li>be a responsible and an ethical member who substantially contributes to the society.</li> </ol> <p><i>4-year and 5-year Bachelor's</i></p> <ol style="list-style-type: none"> <li>engage in self-direction and self-enterprise skills;</li> <li>demonstrate social, professional, environmental and ethical practice/ values;</li> <li>show-case global knowledge and competencies to fulfil employment, entrepreneurial and lifelong learning skills; and contribute significantly to the society.</li> </ol>
<b>BNQF Level 8</b>	<b>Fundamental Skills</b>	<ol style="list-style-type: none"> <li>demonstrate advanced and comprehensive theoretical and technical knowledge in a specialized field, or of a multidisciplinary nature, which is related to field of study or work;</li> <li>exhibit intellectual independence in the deployment of knowledge within specific field by applying critical, analytical and evaluation skills;</li> <li>manage and solve complex application and unpredictable issues with creative and innovative solution in the field of study or work place/practice;</li> <li>describe and comment upon particular aspects of current research, or scholarship, in the field of study; and</li> <li>use a broad range of information, media and technology applications to support study and/or work.</li> </ol>
	<b>Social Skills</b>	<ol style="list-style-type: none"> <li>convey ideas in written and oral forms using appropriate and different presentation techniques, reliably, accurately and to a range of audience in Bangla and English;</li> <li>produce clear, well structured, detailed text on complex subjects,</li> </ol>

Level	Domains	Level Descriptors
		<p>showing controlled use of organizational patterns, connectors and cohesive devices in advanced proficiency level of Bangla and English;</p> <ol style="list-style-type: none"> <li>work collaboratively with different people in learning and working communities; and</li> <li>demonstrate knowledge of cultural, governmental, and environmental issues at a regional level, in relation to issues within Bangladesh and participating in changes for the betterment of the nation.</li> </ol>
	<b>Thinking Skills</b>	<ol style="list-style-type: none"> <li>exercise significant leadership, professionalism in managing responsibilities within broad organizational parameters; and</li> <li>produce clear, well structured, detailed text on complex subjects in solving problems, showing controlled use of organizational patterns, connectors and cohesive devices in advanced proficiency level of Bangla and English.</li> </ol>
	<b>Personal Skills</b>	<ol style="list-style-type: none"> <li>engage in self-directed lifelong learning effectively and demonstrate entrepreneurial skills;</li> <li>demonstrate a relatively high degree of social, professional, environmental and ethical practice/ values; and</li> <li>demonstrate appreciation of cultural diversity in Bangladesh in contributing to society.</li> </ol>
<b>BNQF Level 9</b>	<b>Fundamental Skills</b>	<ol style="list-style-type: none"> <li>demonstrate a systematic understanding of advanced knowledge and skills which may be at the forefront of a field/fields of study, discipline or practice;</li> <li>analyse general and advanced range of specialized theories, concepts, principles and complex information and method within a field/fields of study, discipline or practice;</li> <li>apply knowledge and skills to manage complex matters;</li> <li>synthesise complex information, concepts, theories and problems in a field/ fields of study or practice as a basis for research;</li> <li>carry out semi-specialized research and/or apply practical skills, tools or techniques which are informed by the forefront latest development in the subject or discipline to solve and manage complex problems or solve issues in a field/ fields of study or practice; and</li> <li>competently use a wide range of suitable software ICTs to enhance study, research and/or work/practice.</li> </ol>
	<b>Social Skills</b>	<ol style="list-style-type: none"> <li>communicate clearly the knowledge, skills, ideas, critique and conclusion/rationale using appropriate methods to experts, specialists and peers and non-expert range of audience both in Bangla and advanced English;</li> <li>work with different people in learning and working community and other groups and networks;</li> <li>function effectively as a member of a community; and</li> <li>demonstrate advanced knowledge of cultural, governmental, and environmental issues at a regional and international level, in relation to issues within Bangladesh and actively participating in and advocating for changes/solutions for the betterment of the nation.</li> </ol>
	<b>Thinking Skills</b>	<ol style="list-style-type: none"> <li>be independent and individually responsible for work, professional practice, systems, processes and decision-making on complex problematic matters or issues within the academic, professional or technical settings (a field of study and/or professional practice and/or in multi-disciplinary context); and</li> <li>demonstrate significant autonomy, leadership qualities, interpersonal skill and responsibilities - (planning, resource management, supervision and problem solving) in managing work within a team and others.</li> </ol>

Level	Domains	Level Descriptors
	<b>Personal Skills</b>	<ol style="list-style-type: none"> <li>1. demonstrate self-advancement through continuous academic and/or professional development;</li> <li>2. observe legal, ethical and professional codes of practice; and</li> <li>3. demonstrate appreciation of cultural diversity in Bangladesh in contributing to the society.</li> </ol>
<b>BNQF Level 10</b>	<b>Fundamental Skills</b>	<ol style="list-style-type: none"> <li>1. demonstrate understanding which is comprehensive, systematic, integrated and undertake critical analysis and synthesis of new, complex and abstract ideas of current critical issues in the most advanced frontiers of knowledge of a field of study, or discipline, or practice and related principles, theories, practice or techniques/ technology;</li> <li>2. make substantial / significant contribution/ through the creation/production/innovation of new knowledge/theories/practice/solutions which can satisfy peer reviews, meeting international standards through communications in internationally refereed publications;</li> <li>3. analyze, evaluate and synthesize expert knowledge in specific fields and practice;</li> <li>4. demonstrate mastery of practical, technical skills/practices and scientific skills which is at the forefront of one or more area of specialization and develop new complex skills or techniques and solutions to resolve new highly complex and emerging problems;</li> <li>5. design and implement or adapt highly advanced, specialized research methodologies which are at the forefront of one or more areas of specialization;</li> <li>6. initiate, conduct, manage, supervise and lead future independent original research initiatives;</li> <li>7. provide informed expert/professional opinion and judgment on new and emerging issues in the related fields; and</li> <li>8. use/select/improve existing or develop new appropriate software to support and enhance research activities.</li> </ol>
	<b>Social Skills</b>	<ol style="list-style-type: none"> <li>1. communicate effectively research findings to peers, scholarly community and society at large in the relevant field of expertise in Bangla and advanced English;</li> <li>2. work with different people in learning and working community and other groups and networks;</li> <li>3. convey information, insights, ideas, problems and present solutions cogently/coherently to peers, scholarly community and society at large in the field of expertise;</li> <li>4. contribute to the technical, social and cultural progress in the academic and professional practices to the society on emerging issues; and</li> <li>5. demonstrate expert/professional knowledge of cultural, governmental, and environmental issues at a regional and international level, in relation to issues within Bangladesh and actively advocating for and initiating changes/solutions for the betterment of the nation.</li> </ol>

Level	Domains	Level Descriptors
	<b>Thinking Skills</b>	<ol style="list-style-type: none"> <li>1. be independent and individually responsible for work, professional practice, systems, processes and decision-making on complex problematic matters or issues within the academic, professional or technical settings (a field of study and/or professional practice and/or in multi-disciplinary context);</li> <li>2. demonstrate autonomy, leadership qualities, interpersonal skill and responsibilities - (planning, resource management, supervision and problem solving) in managing work within a team and others;</li> <li>3. be independent original research initiatives with the view to resolve an existing issue; and</li> <li>4. display expert judgment, and responsibility to promote/contribute towards technological, social and cultural development.</li> </ol>
	<b>Personal Skills</b>	<ol style="list-style-type: none"> <li>1. take full responsibility for own work and where relevant be accountable for overall management of the research;</li> <li>2. adhere to legal, ethical and professional codes of practice as a natural part of her/his personality;</li> <li>3. integrate knowledge for lifelong learning, development of new ideas, solutions and systems; and</li> <li>4. demonstrate appreciation of cultural diversity in Bangladesh in contributing to the society.</li> </ol>

# **Appendix 2- PART A. TVET and Skills Qualifications (BNQF Level 1to 6)**

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## Section 1. Introduction

Bangladesh is the second best performing economy in South Asia achieving the lower middle income status in 2015 and expecting to graduate from United Nation's (UN) Least Developed Countries (LDC) status by 2026. The country's gross national product GDP has risen to a staggering 302.6 billion US dollars in 2019, with an average increase of 6.5% annually from 2010<sup>2</sup>. According to the Asian Development Bank (ADB), garment exports and remittances constituted the largest source of foreign capital, and narrowed the external deficit in recent years. The population below the poverty line sharply declined to 20.5 in 2019 from 48.9 and 24.3 from 2000 and 2016<sup>3</sup>, respectively. However, the COVID 19 pandemic significantly disrupted all activities triggering a serious blow to the country's socio-economy.

Even before the onset of the COVID, Bangladesh has to deal with its huge population. In 2020, out of the 165 million population only 67 million or 40% constitutes the working age<sup>4</sup>. The ratio before 2010 has shown a shrinking labour force, and the same percentage (40%) holds true from 2010 to 2019. The lower increase in the labour market compared with the increase in the population may create challenges for economic growth, and competitiveness in the way of continuous development. Being the 8<sup>th</sup> most populated country in the world can be a blessing if the labour force are used efficiently for development.

The labour force of Bangladesh is dominantly based on the informal economy, about 82% for men and 92% for women<sup>5</sup>. The informalization of the labour market may be due to the job crisis and their unregulated, unrecognized and "low productive" in nature<sup>6</sup>.

Furthermore, the new technologies and automation employed by RMG and other manufacturing industries in their efforts to improve product quality and remain competitive in the global market have considerably intensified the need for advanced technology and 4IR skills. There is therefore a need to address the urgent demand to support the country's socio-economic recovery through a productive labour force.

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<sup>2</sup>World Bank National Account Data, 2021

<sup>3</sup> ADB Poverty Indicators, 2021

<sup>4</sup> ILOSTAT as of June 15, 2021

<sup>5</sup> Bangladesh Bureau of Statistics, Labour Force Survey 2016-2017

<sup>6</sup> ILO, Informal Economy in Bangladesh

The education system is saddled with various challenges, among them are: (a) fragmented system of qualifications; (b) lack of consistency of qualifications in the different sectors; (c) unclear pathways of progression; (d) issues of comparability of workers with other nationalities in other countries; and (e ) mismatch between the skills supply and demand.

In this context, the Bangladesh National Qualifications Framework (BNQF) is a response to the call of a quality, relevant, and inclusive education system. The BNQF addresses the fragmentation of qualifications by bringing the schools, TVET, Madrasah, and higher education sectors into one harmonized framework with standard definition of qualifications. Specifically, this document looks into the TVET and Skills component of the BNQF.

### **1.1 Background**

Bangladesh, like many countries started with a sectoral technical-vocational framework before embarking into a broader national framework. The National Technical and Vocational Qualifications Framework (NTVQF) is the first framework which was initiated in 2008 and adopted in 2012. The NTVQF was accompanied by the National Skills Quality Assurance System (NSQAS), one of the main mechanisms to ensure high quality training and assessment services for all learners intending to achieve nationally recognized skills. The NTVQF is one of the most important building blocks of the TVET Reform Project, a project funded by the European Commission (EC) and implemented by the International Labour Organization (ILO) in collaboration with the Government of Bangladesh<sup>7</sup>.

The NTVQF, implemented by the BTEB, allows for the recognition of skills workers have acquired in formal education and training, as well as workplace training and all trainings provided by authorized public and private organizations.

The NTVQF implementation has worked relatively well in two main aspects: the growing awareness of the value of competency-based approach to training for workforce development; the appreciation of the value of continuous quality improvement through implementation of the 5 quality assurance policy booklets; and the establishment of the leadership of industry and professional bodies in the development and maintenance of qualifications. However, there are aspects which have worked less such as the slow

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<sup>7</sup>Ministry of Education in coordination with the Ministry of Labour and the Ministry of Overseas Employment and Expatriate Welfare.

implementation and massification; and establishment of a flexible, open, accessible and responsive workforce development. As of July 2021, there were 103,000 NTVQF certifications out of which 43,000 workers obtained certifications through RPL. There are other vocational courses implemented by BTEB which includes SSC(voc), Dakhil (voc), HSC (voc), HSC BMT/Diploma in commerce, etc.

The BNQF development is an opportune time to critically review the NTVQF in order to be more responsive to address the emerging skills needs, and contribute even better to workforce development in Bangladesh. With about ten years' experience since its implementation, the specifics of the NTVQF is now ripe for revisions and incorporated in the BNQF.

In 2017, the Government of Bangladesh (GoB) through the EU-funded ILO Skills 21 – Empowering Citizens for Inclusive and Sustainable Growth Project took the initiative of extending the NTVQF to a qualification framework for all education sectors. The Skills 21 Project reviewed the NTVQF, and is closely collaborating with the UGC of Bangladesh (UGC), responsible for the National Qualification Framework of Bangladesh (NQFB), under the World Bank-funded Higher Education Quality Enhancement Project (HEQEP). In the spirit of harmonization, the reviewed NTVQF constitutes Part A, while the proposed NQFB was later integrated as Part B of the framework.

The development process is being directed by a BNQF NSC (BNQF NSC) chaired by the Hon'ble Minister, Ministry of Education and assisted by TWGs. The BNQF NSC approved the BNQF structure during the 3rd NSC meeting in June 2021. The BNQF NSC is moving towards the development of its national quality assurance system to operationalize the BNQF.

## **1.2 Scope**

The BNQF is an internationally benchmarked instrument for the development, classification and recognition of knowledge, skills and attitudes along a continuum of agreed levels. The BNQF develops pathways that provide improved access to qualifications and assist people to move easily and readily between the education and the training sectors and the job market. The BNQF provides a route that leads to a unified or harmonized quality assured



qualifications system in Bangladesh<sup>8</sup>. Part A of the BNQF looks at the qualification levels (BNQF Level 1 to 6) below the bachelor's qualifications.

Part A of the BNQF will expand the number of TVET and Skills qualifications to better reflect the growing and changing skills landscape for the domestic and international labour market. The framework defines qualifications based on national competency standards describing generic, sector-specific, and occupation specific competencies identified by the industry stakeholders. The new qualifications will be carried out through formal trainings by Government Polytechnics, Technical School and Colleges, Vocational Teachers Training Institutes, Technical Teachers Training College, and training centres as well as private Technical and Vocational Schools accredited by the BTEB. The programmes will also be carried out by non-government organizations, and industry-based institutions offering apprenticeships and workplace trainings. The framework allows for the recognition of skills workers have acquired in the informal sector, and includes post-secondary qualifications up to diploma level.

Part A develops pathways that provide improved access to qualifications and assist people to move easily and readily between the education and the training sectors and the job market. The BNQF provides a route that leads to a unified or harmonized quality assured qualifications system in Bangladesh<sup>9</sup>.

### **1.3 Objectives**

Part A of the BNQF has the following objectives:

- Provide consistent national definition of qualifications in the Schools (general and madrasah), TVET and Skills, and HE sectors, and establish national equivalence and comparability of qualifications;
- Uphold lifelong learning and increase the employability of graduates through open and flexible qualification pathways, recognition of prior learning (RPL), and credit transfer;
- Promote horizontal and vertical mobility of workers within and between the institutions, sectors, and countries;

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<sup>8</sup> Ministry of Education, 2018

<sup>9</sup> Ministry of Education, 2018

- Promote national and international recognition, equivalence and comparability of qualifications and mobility of graduates; and
- Define clear and flexible pathways with entry and exit progression routes and pathways.

Part A of the BNQF is aligned with other broader national policies namely: National Education Policy (NEP) 2010; NSDP 2021, BTEB Act of 2018,

## **Section 2. The TVET and Skills Qualification System**

### **2.1 Qualification Levels**

The Part A of the BNQF has three parts: (a) qualification levels indicated by numbers and titles, (b) level descriptors describing the levels in terms of learning outcomes, and (c) qualification pathways connecting the levels. Part A consists of six levels (BNQF 1 to 6), which include skills certificates and diploma programs.

**BNQF Level 1-** The NSC at this level is the initial level qualification in the BNQF that prepares learners of any age to become basic skill workers. The graduates at this level will have basic competencies for entry level works, and/or further learning.

**BNQF Level 2-** The NSCs from levels 2 to 4 recognize increasing levels of competencies for skilled works. The NSC 2 prepares learners to work as semi-skilled workers. The graduates at this level will have competencies to perform primarily routine works and as a pathway to further learning.

**BNQF Level 3-** The qualifications at this level includes NSC 3, SSC, and Dakhil. The NSC 3 prepares learners to work as skilled workers. The graduates at this level will have broad range of competencies to perform skilled works, and as pathway for further learning.

At the SSC level, there are three main streams of courses: a general stream, religious stream (Madrasah), and a vocational stream. Each stream offers options for further curricular specializations. The SSC and Dakhil under the schools and madrasah sectors cover a wide range of subjects that prepare children and young people for more specialized study at HSC and higher education. The SSC also establishes the foundation for lifelong learning and human development upon which education systems may then expand further educational opportunities.

The SSC (Voc) covers a broad range of competencies to perform skilled works and use this level as a pathway for further learning. Of the three streams, the SSC (Voc) graduate is awarded two certificates: a secondary school certificate, and an NSC 3. The graduates in the other two streams will receive their respective secondary school certificates. They will go through some form of bridging program if they intend to obtain the NSC 3.

**BNQF Level 4-** The NSC 4 prepares learners to work as highly skilled workers, and to acquire further learning. The graduates at this level will have broad range of competencies for specialized skills and full craftsmanship/ workmanship, and as pathway for further learning

**BNQF Level 5-** The qualifications at this level includes NSC 5, HSC, and Alim. The NSC 5 prepares learners to become supervisors. The graduates at this level will have broad range of competencies to undertake specialized works and use this level as a pathway for further learning.

HSC and Alim recognize individuals with knowledge, skills and values for diverse pathways to further learning, work and effective participation in civic life. They are typically designed to complete secondary education in preparation for HE or provide skills relevant to employment, or both.

Just like the SSCs, the HSC (Voc) graduate is awarded two certificates: a Higher Secondary Certificate, and an NSC 5. The graduates in the other two streams will receive their respective Secondary School Certificates. They will go through some form of bridging program if they intend to obtain the NSC 5.

**BNQF Level 6-** The qualifications at this level may be NSC 6 or Diploma. The NSC 6 is developed for higher level at a specific occupation/discipline.

The Diploma has a wider theoretical base than a certificate, and with broad knowledge and skills for highly specialized works including supervision and management, and/or further learning. The diploma prepares learners to work as mid-level managers.

The NSC 6 or Diploma interfaces with the higher education qualifications, therefore allows a student to leave the TVET and Skills qualifications, and move to higher education levels.

The mentioned qualifications will prepare people for specific jobs with skill sets applicable in the job market and/or continue their learning in their chosen technical area, Table 1.

## **2.2 Level Descriptors**

The level descriptors indicate the location of a particular qualification, which are progressive in terms of scope and sequence, from BNQF Level 1 to BNQF Level 6. The level descriptors

help learners, education and training providers, and employers’ position and value of a specific qualification in relation to other qualifications. The level descriptors are stated in general terms to embrace a wide range of institutions, stakeholders and their interests, traditions, cultures and values.

The TVET and Skills descriptors look at knowledge, skills and responsibilities where responsibilities are one way of looking at attitudes. The level descriptors of these frameworks are based on Bloom’s Taxonomy, which is the common reference of most frameworks especially the European Qualifications Framework (EQF) and the NQFs in the European countries. The level descriptors are expressed in terms of the following domains:

- a. **Knowledge** may be theoretical and/or factual. Knowledge includes extensive deep knowledge, understanding of facts, concepts, principles, theories, processes, and procedures provided for in the area of learning, work, or profession.
- b. **Skills** is described as cognitive or practical. Cognitive skills involves the use of logical, intuitive and creative thinking, while and practical involves manual dexterity and the use of methods, materials, tools and instruments.
- c. **Responsibility** is described as the ability of the learner to apply knowledge and skills autonomously and with responsibility. These include what a learner exhibits in terms of principles, ethics and standards for personal and professional success and well-being.

The level descriptors from Levels 1 to 6 can be found in Table 2.

Table 2: The level descriptors for the BNQF Levels 1 to 6

Level	Domains	Level Descriptors
BNQF Level 1:	<b>Knowledge</b>	Elementary understanding of the ability to interpret the underpinning knowledge in a specific study area; able to interpret common occupational terms and instructions
	<b>Skills</b>	Specific basic skills required to carry out simple tasks; interpret occupational terms and present the results of own work within guided work environment/ under supervision
	<b>Responsibilities</b>	Work under direct supervision in a structured context with limited range of responsibilities
BNQF Level 2	<b>Knowledge</b>	Basic understanding of underpinning knowledge in a specific study area; able to interpret and apply common occupational terms and instructions

<b>Level</b>	<b>Domains</b>	<b>Level Descriptors</b>
	<b>Skills</b>	Skills required to carry out simple tasks; communicate with his team in the workplace presenting and discussing results of his work with required clarity.
	<b>Responsibilities</b>	Work or study under supervision in a structured context with limited scope of manipulation.
<b>BNQF Level 3</b>	<b>Knowledge</b>	Moderately broad knowledge in a specific work or study area, able to perceive ideas and abstract from drawing and design according to workplace requirements.
	<b>Skills</b>	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools. Communicate with his team and limited external partners upholding the values, nature and culture of the workplace.
	<b>Responsibilities</b>	Work or study under supervision with considerable autonomy. Participate in teams and responsible for group coordination.
<b>BNQF Level 4</b>	<b>Knowledge</b>	Broader knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to solve problems to new situations by comparing and applying acquired knowledge.
	<b>Skills</b>	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and information. Communicate using technical terminology and IT technology with partners and users as per workplace requirements.
	<b>Responsibilities</b>	Work under minimal supervision in specific contexts in response to workplace requirements. Resolve technical issues in response to workplace requirements and lead/guide a team/ group.
<b>BNQF Level 5</b>	<b>Knowledge</b>	Broad knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to scrutinize and break information into parts by identifying motives or causes.
	<b>Skills</b>	Broad range of cognitive and practical skills required to generate solutions to specific problems in one or more work or study areas. Communicate practice-related problems and possible solutions to external partners.
	<b>Responsibilities</b>	Work under guidance of management and self-direction to resolve specific issues. Lead and take responsibility for the work and actions of group/team members. Bridge between management.
<b>BNQF Level 6</b>	<b>Knowledge</b>	Comprehensive actual and theoretical knowledge within a specific work or study area with an awareness of the validity and limits of that knowledge, able to analyze, compare, relate

Level	Domains	Level Descriptors
		and evaluate.
	<b>Skills</b>	Specialized and wider range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems. Communicate professional issues and solutions to the team and to external partners/users.
	<b>Responsibilities</b>	Work under broad guidance and self-motivation to execute strategic and operational plan/s. Lead lower level management. Diagnose and resolve problems within and among work groups.

## 2.3 Qualification Pathways

### 2.3.1 Vertical Pathways

1. The TVET and Skills qualifications are vertical until Level 6 (Diploma/ National Skills Certificate NSC 6). The BNQF stipulates any of the following minimum entry requirements for Level 1 (NSC 1): Class 8 pass or evidence of equivalent achievement, or pass in a challenge test in language, literacy and numeracy skills, or pass in a relevant prevocational program.

The candidates at NSC 6 or Diploma need to pass a rigid selection procedure, and a set of entry requirements as there is a significant increase in the knowledge and skills component from the previous level. The requirements may include: NSC 5 pass; challenge test and competency interview for knowledge and skills; or HSC/ SSC pass. In addition, the candidates may undertake a bridging program consisting of gap training on the skills relevant to their intended programs as well as general subjects such as English, Mathematics, Science, and Information Technology. The candidates at NSC 5 may need to pass the same selection procedure as when they seek entry to NSC 6.

2. The Schools sector qualifications (up to HSC) are also vertical. The Schools sector qualifications such as SSC and HSC do not have well defined equivalence with TVET qualifications though the former provides entry points to qualifications at TVET and HE. The qualifications of the madrasah are also vertical. There is established equivalence among the qualification levels of school and madrasah education such as SSC and Dakhil, HSC and Alim.

### **2.3.2 Horizontal Pathways**

1. The BNQF structure provides a horizontal pathway from Schools sector to TVET and Skills. Some forms of bridging programs may be implemented to set the equivalence. For HSC to be equivalent to NSC 5, and SSC to be equivalent to NSC 3 some bridging programs may be needed to train students in skills that are lacking in the general school education stream. Such bridging programs would allow students to switch from one sector to another in pursuit of the desired qualification. It is to be noted that an HSC qualification may serve as an entry point to a Bachelor's degree in HE or a Diploma in TVET qualification, because such pathways have been well established in Bangladesh as well as in other parts of the world
2. According to the academic pathway of HE, the Level 6 TVET qualification (Diploma) may serve as an entry point to the Bachelor's level. This horizontal pathway builds a connection between the two sectors. The competencies acquired in the Level 6 programs could be credited towards Level 7 (Bachelor's) programs. From Level 6 to Level 7 as well as from various years of Level 6 to various years of Level 7, entry requirement will be considered by taking into account lifelong learning, RPL, credit transfer, credit waiver, bridging programs, and other systems of validation and recognition.
3. Alim qualification may serve as an entry point to a Diploma in TVET qualification.
4. The BNQF structure suggests bridging programs to set the equivalence between NSC 3 and Dakhil, and NSC 5 and Alim.

### **2.3.3 Lifelong Learning Pathway**

The BNQF provides flexible pathway for entry to any qualification at any level through this lifelong learning pathway. Lifelong learning refers to all learning activities undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-related perspective. Some examples of lifelong learning can be – learning computer programming or a second language via online program or distance education, leaning a new sport, and learning to cook in a classroom or a restaurant setting. The concept of lifelong learning, as a recognized way of gaining knowledge, skills and attitudes, is fairly new in the Bangladesh education system. The definition, process and possible examples of lifelong learning need to be thoroughly



discussed and identified in order to ensure proper integration of all sectors of education with the BNQF.

There will be open entry and no barriers for participants from informal sectors through recognition of prior learning (RPL) at any level of BNQF. It is worth noting that the frameworks provide the minimum requirements of completing each level and graduation from one level to the next. Institutions can set their own requirements for entry and exit based on these minimum requirements and approved by the decision-making authority of the institution such as academic council and syndicate in case of HE institutions. Another point to consider is that there are many TVET courses and programs that are outside the purview of the NTVQF. These courses and programs, as listed in the BTEB Act 2018 (dated 25 July 2019), have diversified entry requirements and durations. These courses and programs need to be aligned with various levels of the TVET and Skills sector by the initiative of the BTEB.

#### **2.3.4 Entry through Pre-Vocational Qualifications**

As per the earlier practice, the pre-vocational level will be considered to enter BNQF Level 1 for the learners who do not meet the entry criteria of Level 1. Pre-Voc level not only opens up additional career pathways for students pursuing general education but also addresses the needs of under-privileged groups and individuals with low levels of education. Previously, Individuals without a Grade 8 or above level of education were not able to access the formal skills development system as they did not meet the prerequisite education level. With the pre-vocational levels, the learner will have a pathway to enter formal training. Pre-Voc level will be implemented by BTEB as per current provision of BTEB.

## Section 3: Implementation and Quality Assurance

### 3.1 Implementation

The qualification framework requires the adoption of competency-based training and assessment (CBT&A) in order to be responsive to the present and future industry needs. The CBT&A shifts training away from the current theory based approaches to an approach to delivery and assessment that emphasizes the achievement and demonstration of practical skills at the standard specified by industry.

The progression of learners through CBT & A program will be determined by whether the student has met the set standards, and not by the time spent in training. Each learner's achievement is measured against job-related competency standards rather than against the achievement of other learners.

There are three essential components in implementing the qualifications framework:

1. **Competency Standards Development.** Nationally agreed industry-determined specifications of the competence required for effective performance. Standards are expressed in a consistent format outlining the different aspects of competency and are the basis for all stages of skills development, from training delivery to assessment of competence. Standards describe the work to be performed in a specific occupation and the knowledge, skills and attitudes needed in the workplace.
2. **Competency-Based Training (CBT) Delivery System.** Competency-Based Training Delivery System. CBT is rapid, flexible, relevant and job-directed. The methodology deviates away from the current approach to education and training in Bangladesh. Its emphasis is on what a person can do in the workplace. Progression of learning within a CBT program is not time-bound but instead it depends on the learner's ability to demonstrate competence in the job. CBT focuses on assisting learners to develop and demonstrate competent performance as required by industry standards. It aims to prepare the individual for employment or to become more productive in the workplace setting.
3. **Competency Assessment and Certification System (CACS).** The CACS is a system designed to assess and certify graduates and workers. Competency Assessment is defined as the process of collecting evidence and making judgments on whether competency has been achieved based on approved competency standards.

### **3.2 Quality Assurance**

The quality assurance system ensures quality, demand-based TVET and Skills development in Bangladesh. The quality assurance system encompasses but not limited to the following initiatives:

1. Development of nationally-recognized competency standards based on industry requirements
2. Development of training and assessment standards and materials based on competency standards
3. Training, assessment and certification of trainers and assessors using competency-based (CBT&A) methodology
4. Registration of training organizations to deliver competency-based training
5. Accreditation of training and assessment programs
6. Accreditation and registration of assessment centers to undertake competency-based assessment
7. Development of a Recognition of Prior Learning (RPL) system
8. Maintenance of a Management Information System

## Appendix 3- PART B. Higher Education (BNQF Level 7 to 10)

### Contents

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## **Section 1: The National Qualifications Framework of Bangladesh for Higher Education**

The National Qualifications Framework of Bangladesh for Higher Education (the Framework) is implemented by the Bangladesh Accreditation Council (the Council), a statutory autonomous body, established by the Bangladesh Accreditation Council Act, 2017 responsible for governance and management of the Framework. This is in line with international norms. The Council is required to coordinate policies across government agencies and ensure adequate involvement of all stakeholders in implementing the Framework.

Once approved, the Framework promotes qualifications awarded by an approved higher education institution and identifies the knowledge, skills, competencies and values a graduate from this institution would have acquired.

The Framework sets national classification of qualifications and levels of learning based on learning outcomes, and prescribes minimum academic load and nomenclatures. As such, programmes will only be accredited if they comply with the Framework. It underpins the quality assurance system practised by the Council, acting as the custodian of the Framework. An accredited program/qualification indicates that the program is quality assured, and it has fully satisfied all the quality standards and is compliant to this Framework.

### **1.1 Background to the Framework**

The Framework primarily brings together various best practices from qualifications that are in place in Bangladesh and globally. It aims to enhance the quality of higher education qualifications in Bangladesh and to ensure that the variations in instructions among higher education institutions are harmonized.

The Framework was mooted in 2009 with the establishment of the Higher Education Quality Enhancement Project (HEQEP) funded by the Government of Bangladesh. It is here that many of the fundamental quality assurance principles were initiated. The Framework is the culmination of eight years of quality assurance and enhancement activities in the higher education sector in Bangladesh. The establishment of the Institutional Quality Assurance Cells (IQACs) in about 50 per cent of higher education institutions provides a fertile ground for the establishment and implementation of this Framework.

## **1.2 Implementing the Framework**

The Framework sets out an outcome-based higher education system based on qualifications standards that are rationalized, streamlined, and consolidated to cover all post-higher secondary qualifications in Bangladesh. It applies to quality assurance at program and institutional level first and thereafter to accreditation of programs and institutions by the Council directly or through Confidence Certificate.

Developing a quality assurance (QA) culture requires special attention to Quality Assurance Areas (QA Areas). The achievements in the QA Areas will be measured according to international good practices and conventions, carried out in a transparent and consistent manner, and recognized by users of the qualifications nationally and internationally. The QA Areas significant for Bangladesh are:

1. Governance;
2. Curriculum Design and Delivery;
3. Student;
4. Staff;
5. Facilities;
6. Research and Extension; and
7. Process Management and Continuous Improvement.

Each QA area will contain sub-areas and standards that are divided into benchmarked and enhanced standards.

## **1.3 Scope of the Framework**

The Framework is an instrument for development, classification and recognition of skills, knowledge, competencies and values of graduates at agreed benchmarked levels. It provides the basis for improving quality, accessibility, linkages and recognition of qualifications within national and international boundaries. It also restructures existing qualifications and defines new ones by credit, based on student learning outcomes. It operates within the larger national higher education regulatory structure that consists of various universities' charters, Acts of Parliament, rules, regulations and higher education development or strategic plans. It compares different higher education qualifications and

shows how students can progress from one level to another, within higher education sector. The Framework allows for articulation of academic qualifications and includes all activities that result in the recognition of learning. Examples of these activities are the development and organisation of policy on national qualifications, quality assurance, and assessment and qualification award processes. The Framework also provides recognition of non-formally acquired skills and facilitates the integration of these into a formal system via Accredited Prior Experiential Learning (APEL).

The Framework covers all post-higher secondary academic sectors but does not include the TVET sector. It includes all levels of qualifications from Bachelor's and Postgraduate qualifications. It also covers all learning achievements and pathways at the post-higher secondary level, such as adult education and lifelong learning pathways. Thus, the Framework provides a basis for improving the quality, accessibility and recognition of post-higher secondary qualifications, nationally and internationally.

The design of the Framework provides a unified system where all higher education and training provisions are within a single fit-for-purpose structure. The Framework is managed centrally and is supported by three other quality assurance documents:

1. Self-assessment Manuals for Higher Education;
2. Best Practice Manuals for QA Areas; and
3. Discipline Manuals containing program specifications or standards.

The Self-Assessment Manual for Higher Education will address all seven QA Areas. Best Practice Manuals and Discipline Manuals will further support the Framework by providing specific guidelines in relation to QA Areas and program disciplines.

#### **1.4 Objectives of the Framework**

The objectives of the Framework are to:

1. provide a national definition for higher education qualifications;
2. promote recognition, equivalency and consistency of qualifications among different higher education sub-sectors;
3. clarify learner-entry and exit points and progression routes;
4. support national lifelong learning policy; and

- enable national policy in developing human capital and graduate mobility through benchmarking.

### 1.5 Pillars of the Framework

The Framework has five primary pillars and these are:

- a single system of levels and a common approach to describing all post-higher secondary qualifications;
- a modular/unitised qualifications system based on standards and learning outcomes that are internationally benchmarked;
- an assessment system based on clearly defined criteria;
- a national system for credit accumulation and transfer; and
- a common classification system for discipline and occupational sectors.

### Section 2: Bangladesh Higher Education Qualifications System

The higher education qualifications system of Bangladesh will be an outcome-based student-centred system focusing on what a graduate can do rather than what s/he had learnt. To support an outcome-based system, the Framework provides a common table of levels for the higher education system in Bangladesh through the recognition of qualification levels with minimum graduating credits (See Table 1).

Table 1: Higher Education Qualifications Levels and Minimum Graduating Credits

Qualification		Minimum Graduating Credits
Level	Name	
10	Doctoral	
	• <i>Doctoral by Research</i>	N/A
	• <i>Doctoral by Mixed Mode</i>	30 + Thesis
9	Master's	
	• <i>Master's by Research</i>	N/A
	• <i>Master's Mixed Mode</i>	20 + Dissertation
	• <i>Master's by Coursework</i>	40
8	Postgraduate Diploma	40
	Postgraduate Certificate	30
7	Bachelor's	
	• Bachelor's (5 years)	160
	• Bachelor with Honours/ Bachelor's (4years)	140
	• Bachelor's (3years)	120



Purpose, levels, titles, outcomes and credits define the qualifications in this Framework. Within a single qualification attached to a level, there may be different awards, which denote their modalities and design. Details and clarifications of the various levels are in the following appendices:

- Appendix 1: Higher Education Pathways
- Appendix 2: Summary Information on Qualifications Levels
- Appendix 3: Learner Profile
- Appendix 4: Learning Outcome Domains and Level Descriptors

## 2.1 Qualifications Levels

**BNQF Level 7- Bachelor's:** There are three modes of Bachelor's: 5-year Bachelor's, 4-year Bachelor's with or without honours and 3-year Bachelors. 5-year Bachelor's must fulfil a minimum 160 graduating credits requirement, 4-year Bachelor's with or without honours must fulfil a minimum 140 graduating credits requirement and 3-year Bachelors must fulfil a minimum 120 graduating credits requirement.

The 5-year Bachelor's and 4-year Bachelor's with or without honours involve broad, comprehensive knowledge, strong intellectual and problem solving skills, various work competencies and professional practices. They also require graduates to have effective interpersonal, communication and research skills in a specialized or multi/interdisciplinary field of study. Graduates are required to have leadership and managerial skills to lead, manage and take responsibilities in organizations within a multicultural or transnational setting. The Bachelor in recognized field also leads to professional practice.

The 3-year Bachelor's involves broad, comprehensive knowledge, intellectual and problem-solving skills, various work competencies and effective interpersonal and communication skills. It also requires graduates to have some research skills in semi-specialized or multi/interdisciplinary field of study, and leadership and managerial skills to manage and take responsibilities in organizations within a multicultural or transnational setting.

All Bachelor level programmes generally provide the basis for progression into a Master's degree, or a Postgraduate Certificate or Postgraduate Diploma degree with relevant post-graduation work experience as required.

**Level 8 - Post Graduate Certificate and Post Graduate Diploma:** These two qualifications are incorporated largely to support lifelong learning pathways provided under the

Framework as they enable learners in acquiring advanced knowledge over that of a Bachelor's but below that of a Master's. These qualifications link Bachelor level graduates to pursue a Master's level qualification by providing the critical bridge of skills and competencies. The minimum graduating credits are 30 and 40 for Postgraduate Certificate and Postgraduate Diploma respectively.

**Level 9 – Master's:** Master's qualification is typically an extension of study undertaken at the Bachelor's level in similar or corresponding discipline or a specialisation based on extensive professional practice. There are three modes of Master's: by Coursework, by Mixed-mode and by Research. A Master's by Research will be a thesis/dissertation-based qualification and may or may not have a taught component. However, the taught component will not be credit bearing and students will be assessed solely on their thesis/dissertation. A Mixed-mode Master's has a minimum 20 credits taught component and a research component involving a thesis/dissertation. A student's assessment is based on his/her performance in both the components. Finally, a Master's by Coursework involves taught courses to a minimum of 40 credits. The duration at this level will range between one to two years of full-time study. The learner profile and level descriptors in the appendices are intended to be inclusive of the various types of Master's unless otherwise indicated.

A Master's degree involves significantly specialized knowledge in a specific area or discipline, which is current, and at the forefront of knowledge. Critical, systematic and creative thinking skills, research practice or advance professional practice, interpersonal skills with leadership and managerial skills are critical competencies particularly within multicultural or transnational work and learning environments. The learners should be able to inform or advise, improve innovations, and share views on contemporary and new issues in related fields or professional practice to relevant audience. While the above competencies are expected as outcomes of a Master's study, the differences generally are in the output, in the form of substantial thesis, dissertation, long case study, project report, new technical solutions/practices and art forms.

**Level 10 – Doctoral:** This is the highest level of learning in the Framework leading to the award of a doctoral degree. It involves substantial and independent research and scholarship in advanced areas of knowledge and emerging issues. The conduct of research resulting in a thesis in a field of study is vital at this level. The graduate should provide

effective leadership in his/her field of research, share ideas, and adhere and deal with complex ethical issues. S/he should continue to contribute towards social, technological and cultural progress in the academic and professional contexts.

While the doctoral level does not stipulate the minimum graduating credits, the credit requirement in the case of PhD by mixed mode, where candidates will complete a minimum taught course before pursuing a thesis is 30. The minimum duration is normally a 3-year full time study. All doctoral level qualifications will have a thesis as final graduating criteria. The qualifications titles are in the form of a PhD for research doctorates. Applied or professional doctorates may use nomenclatures such as EdD, DEng or other descriptors relevant to the field concerned.

## **2.2 Pathways for Individuals and Lifelong Learning**

The Framework generates various alternative pathways with entry and exit points that recognize individual achievements. It provides links at every qualification level using a combination of credits and learning outcome or competency measurement. This will enable individuals to have clear progression paths for better life opportunities through higher qualifications. Effectively this recognises both APEL and APL based on the principle that every person should have lifelong learning opportunities to acquire the knowledge and skills that s/he needs in order to fulfil her/his aspirations and consequently contribute to the nation and society. Lifelong learning should not be limited to the attainment of knowledge, skills and other common competencies. It should encompass a larger panel of expertise with emerging skills deemed critical for the individual. The provision of Post Graduate Certificate and Postgraduate Diploma at level 8 is a direct reference to the presence of and systemic support for lifelong learning mechanism in the Framework.

## **2.3 Entry pathways from Level 6 (Diploma) to Level 7**

From Level 6 to Level 7 as well as from various years of Level 6 to various years of Level 7, entry requirement will be considered by taking into account lifelong learning, RPL, credit transfer, credit waiver, bridging programs, and other systems of validation and recognition.

## **2.4 Learning Outcomes**

The Framework uses an outcome-based system, which focuses on learning outcomes of a student. Learning outcomes are statements on what students should learn and be assessed for. They reflect what a student can do upon the completion of a period of study, as in a

course, semester, year or a programme (qualification or a part of it). This shifts the focus of education from a teacher-centred to a student-centred system.

The levels in the Framework, its domains of specific learning outcomes and credits are external standards and guide. Outcomes are intended to narrow the gap between the worlds of education and work using generic learning outcomes. Learning outcomes are individually prepared and seen as a possible separator between components of a course or between courses. Based on an agreed competency level, these outcomes support the growth of continuous development for more knowledge and understanding, better cognitive and personal skills and personal and professional development. Broadly, learners are expected to be able to continue to perform to an improved level in their working life and further education (lifelong learning).

## **2.5 Learning Outcome Domains**

The fast-growing changes and the higher demands on graduates from the world of employment, society and the country at large require a re-thinking of graduate skills in Bangladesh. All levels of qualifications in the Framework will address these skills albeit at varying degree. Programmes of study cannot be accredited if these domains are not addressed by providing clear learning outcomes.

Bangladesh adopts four skills as the Learning Outcome Domains in this Framework. These are loosely based on the 10 skills recommended by the World Economic Forum 2015, which are Complex Problem Solving, Critical Thinking, Creativity, People Management, Co-ordinating with Others, Emotional Intelligence, Judgment and Decision Making, Service Orientation, Negotiation and Cognitive Flexibility. The four Learning Outcome Domains also provide a common thread across all levels of higher education qualification in Bangladesh.

The recognition of all qualifications is achieved through the fulfillment of the four Learning Outcome Domains to the appropriate level. The descriptors are expanded for each level of qualification in Appendix 4. The implementation of these four Learning Outcome Domains will help prepare graduates for the fourth industrial revolution.

The Learning Outcome Domains significant to Bangladesh are Fundamental Domain, Social Domain, Thinking Domain and Personal Domain. These domains are classified below.

- (a) **Fundamental Domain**- This domain involves the discipline specific knowledge and application skills that a student obtains after a level of study, which influence his/her performance and societal contributions.
- (b) **Social Domain**- This domain involves the skills needed for working with people at various levels to achieve set goals, communication and community engagement. The World Economic Forum categorises social skills as the ability to coordinate, instruct, negotiate, persuade, be service oriented and have people and environment perceptiveness.
- (c) **Thinking Domain**- Skills such as learning to learn, decision-making, problem solving and entrepreneurship are part of the Thinking Domain. This involves the ability to be active learners and critical thinkers. It requires the graduates to be investigative, enterprising, scientific and analytical and have management skills.
- (d) **Personal Domain**- This domain involves skills such as life-long learning, self-direction, acting with integrity and the development of citizenship. The ability to be active listeners, manage one's own time and the time of others, care for others, develop and build teams, be responsible for one's own acts and results, perform civic duties and contribute to society are some examples of skills under this domain.

Each programme conforms to the Framework by fulfilling the domains identified through clear learning outcomes at the program and course levels. The Level Descriptors (in Appendix 4) provide some examples how these apply at the various qualification levels in the Framework. The learning outcomes at the course level are mapped to the learning outcomes at the program level, which in turn are mapped to the overall vision and mission of the higher education institution. There will be significant variations in the general application of the Learning Outcome Domains to qualifications of different fields and levels.

## 2.6 Level Descriptors

Each level has a generic statement, which describes the learning achievement at a particular level (see Appendix 4). These Level Descriptors work as a guide to writing learning outcomes, supporting assessments and providing a common understanding of the qualifications. They function as the comparative instrument for programs from different disciplines, and are utilised to benchmark national and foreign qualifications and gauge equivalency. These Level Descriptors are usually generic in nature and provide for an overarching effect with the intention to fit all types of courses and disciplines in a qualification level. The Program Discipline Manuals will provide greater specificity on Level

Descriptors for individual field of study. Level Descriptors will also function as the reference point for assessing prior experiential learning and are largely non-prescriptive in nature. Significantly, the Level Descriptors will provide the expected capabilities/competencies of learners upon the successful completion of a level of study.

## 2.7 Credit System

A credit system plays an increasingly important role in higher education at national and international levels. Used to measure and enhance student learning, the credit system provides course transparency, institutional effectiveness and promotes global mobility of students and graduates. It is effectively an academic currency to be utilised in the maximisation of the value of higher education. Its key advantage lies in its ability to quantify and record student learning and achievement.

### Section 3: Modularised Qualifications Based on Standards and Learning Outcomes

All higher education qualifications will be modular or unitised, based on benchmarked standards and learning outcomes. As such, all teaching and learning activities carried out by a student will be quantified and measured. A qualification is formed by individual courses allowing a student to cumulatively achieve the minimum graduating credits for the relevant qualification level. A course is characterised by its learning outcomes that are translated into credit that is measured by student learning time. This credit will be the academic currency, which a graduate of the Bangladesh higher education sector may carry with her/him for the purposes of career or educational advancement. For the purpose of this Framework, the general measure of one credit is 40 notional hours. The calculation of notional hours is based on class contact time and self-learning time of a student in addition to the class contact time.

However, by their very nature, different activities will attract different notional hours. These are dependent on the type of learning-teaching activities as described in Table 2.

Table 2: Learning-Teaching Activities and Suggested Notional Hours per Credit

No.	Learning-teaching Activities	Notional Hours for 1 Credit
1.	Lecture, Tutorial, Seminar	40
2.	Lab, Studio or Clinical Work	60
3.	Industrial/Workplace Learning	80

***\*(For lecture, tutorial, seminar 1-hour face to face learning per week for 14 weeks, for lab, studio or clinical work 1.5-hour face to face learning and Industrial/Workplace Learning 2 hours per week for 14 weeks is equivalent to 1 credit)***

The proposed notional hours for each of the learning activity include assessment, self-learning and preparatory work. Thus, a four-credit subject (theory + practical) shall have many possible combinations of total learning-teaching hours.

The award of the qualification at the respective level may also be described by the minimum graduating credits required for the completion of that level. Students will be required to take and achieve the learning outcomes (pass the courses taken) in order to achieve the minimum graduating credits. Thus, if a course has 130 as its minimum graduating credits, a student must take and successfully complete required number of courses, which amount to 130 credits for graduating.

### **3.1 Assessment**

Assessment of the learning outcomes can be multi-fold, over a period and appropriate to the course. Assessment will measure the achievement of learning outcomes. Students are required to achieve all learning outcomes in order to gain a pass mark. The use of grades or classifications, such as credit, merit and distinction are indicative of the level of achievements of the learning outcomes. Assessments based on explicit/defined criteria are benchmarked using an external system at the individual institution. All assessments will include institutionally determined expert moderation, examiner and timely and systematic feedback to the students.

### **3.2 A National System of Credit Accumulation and Transfer**

The Framework supports a national system of credit accumulation and transfer. A credit accumulation and transfer system promote recognition and parity of qualifications among sectors and sub-sectors based on clarity of learner entry and exit points. This also supports the national policy on lifelong learning and graduate mobility as it promotes movement of graduates between sectors and sub-sectors and programs by providing vertical and parallel educational pathways (See Appendices 1 and 2).

Credit accumulation and transfer, subject to individual discipline/field requirements, may take place at either program level or course level. A student may be exempted for a course or part of a program that s/he had successfully completed. Providers of post-higher secondary qualifications will be required to establish a credit accumulation and transfer

model based on international and prevailing national best practices and this will be subjected to audit by the Council. Credit accumulation and transfer models may vary according to program discipline and level.

### **3.3 Common Classification System for Subjects and Occupational Sectors**

The Framework provides for a common classification system for subjects and occupational sectors given in Appendix 5. This is used to benchmark all qualifications and allows for parity between qualifications. The main categories for the subjects and occupational sectors are Generic programmes and qualifications, Education, Social Sciences, Journalism and Information, Business, Administration and Law, Natural Sciences, Mathematics and Statistics, Information and Communication Technologies (ICTs), Engineering, Manufacturing and Construction, Agriculture, Forestry, Fisheries and Veterinary, Health and Welfare, and Services.

#### **Educational Pathway**

The new post-higher secondary pathway under this Framework provides opportunities for intended learners to plan and achieve their goals and academic destinations through establishing clear milestones. Achievements are no longer measured only by the number of years but rather by the completion of level learning outcomes and meeting minimum graduating credits for progression.

#### **Articulation and Recognition of Prior Learning :**

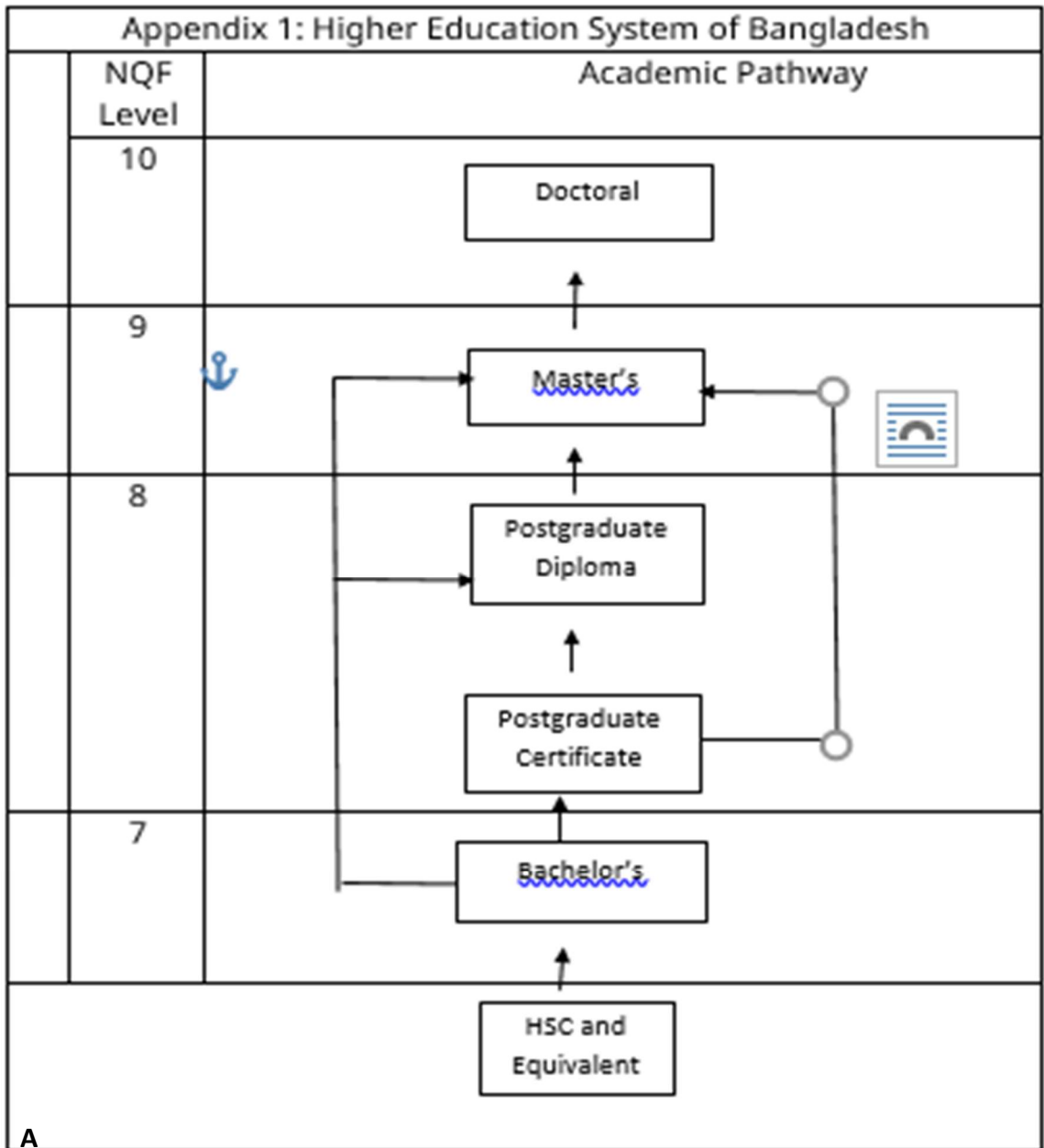
Articulation recognises learning that takes place in a formal classroom and provides advanced standing or exemptions. The advanced standing is provided by course, semester or year of study exemptions, depending on the institution's own quality measures.

Where a large part of the population had been excluded from the formal education system or where there was a high number of school dropouts, recognition of non-formally acquired skills is important. Facilitating integration into the formal system through accreditation of prior experiential learning requires a structured mechanism, which will be developed as the larger part of the higher education quality system.

**This framework may be reviewed/ revised and updated based on the needs of time subject to approval of the Government.**



Appendix for Part B



Appendix 2: Summary Information on Qualifications Levels

Qualifications Level	7	8	9	10
<b>Qualifications Framework Nomenclature</b>	Bachelor's	Post-Graduate Diploma or Certificate	Master's	Doctoral
<b>Base Entry Requirement</b>	HSC or equivalent	<ul style="list-style-type: none"> <li>• 3-year Bachelor's with 2</li> </ul>	<ul style="list-style-type: none"> <li>• 3-year Bachelor's with 2 years' experience or equivalent determined</li> </ul>	Master's or equivalent

Qualifications Level	7	8	9	10
		years' experience or equivalent determined by the university <ul style="list-style-type: none"> <li>• or 4-year Bachelor's with or without honours</li> <li>• or 5-year Bachelor's</li> </ul>	by the university <ul style="list-style-type: none"> <li>• or 4-year Bachelor's with or without honours</li> <li>• or 5-year Bachelor's</li> </ul>	
<b>Minimum Duration</b>	<ul style="list-style-type: none"> <li>• 5-year</li> <li>• 4-year</li> <li>• 3-year</li> </ul>	1 year	<b>For 4-year and 5-year Bachelor's</b> 3 modes in full time <ul style="list-style-type: none"> <li>• Taught Course - 1 year</li> <li>• Mixed Mode - 1.5 years</li> <li>• Research - 2 years</li> </ul> <b>For 3-year Bachelor's</b> 3 modes in full time <ul style="list-style-type: none"> <li>• Taught Course - 2 years</li> <li>• Mixed Mode - 3 years</li> <li>• Research – eligibility and duration will be determined by the respective University.</li> </ul>	2 modes in full time <ul style="list-style-type: none"> <li>• Mixed Mode – 3 years</li> <li>• Research – 3 years</li> </ul>
<b>Minimum Graduating Credits (based on 40 notional hours/credit)</b>	<ul style="list-style-type: none"> <li>• 5-year (160 credits)</li> <li>• 4-year (140 credits)</li> <li>• 3-year (120 credits)</li> </ul>	<ul style="list-style-type: none"> <li>• PG Certificate – 30 credits</li> <li>• PG Diploma – 40 credits</li> </ul>	<ul style="list-style-type: none"> <li>• Taught Course – 40 credits</li> <li>• Mixed Mode – 20 credits + Dissertation</li> <li>• Research - Thesis only</li> </ul>	<ul style="list-style-type: none"> <li>• Mixed Mode – 30 credits + Thesis</li> <li>• Research - Thesis only</li> </ul>
<b>Academic Pathway</b>	• Level 8 with relevant post-	• Level 9	Level 10	N/A

Qualifications Level	7	8	9	10
	graduation work experience of 2 years or equivalent determined by the university • Level 9 with relevant post-graduation work experience of 2 years or equivalent determined by the university			

\*(Maximum duration: 6 years for 3-year Bachelor's; 7 years for 4-year Bachelor's; 8 years for 5-year Bachelor's; 3 years for Master's; 7 years for PhD)

### Appendix 3: Learner Profile

Qualifications Level	7	8	9	10
Qualifications Name	3-year Bachelor's 4-year Bachelor's with or without honours 5-year Bachelor's	Postgraduate Certificate and Postgraduate Diploma	Master's	Doctoral

<p><b>Learner Profile</b></p>	<p>At 3-year Bachelor level, a learner will have moderately specialized knowledge and skills leading to a career and higher responsibilities in a technical, professional or management fields with basic research abilities and a broad degree of autonomy. The learner will acquire a sense of responsibility for further professional or career development. S/he will also express an interest in pursuing further education while possessing a strong sense of ethics and professionalism aligned to national aspirations. S/he will be able to function in an environment of broad degree of autonomy.</p> <p>At 4-year and 5-year Bachelor’s level, a learner will demonstrate an understanding of broad-based and coherent body of knowledge and skills for full professional work embedding moderately earch skills, innovation and creativity in a focused area. S/he will be able to conduct research under supervision, function in an environment with minimal supervision and be a professional, resilient, ethical worker showing an understanding of culture, sustainability needs and an awareness of global citizenship aligned to national aspirations. S/he will be able to function in an environment of broad degree of autonomy.</p> <p><i>Note: The Bachelor’s is the lower-most qualification in this framework.</i></p>	<p>At this level, a learner will demonstrate a moderately high mastery of knowledge in specific field/field of study/work exemplifying an understanding of strong theoretical knowledge, critical thinking, and creative and innovative skills. S/he will be able to generate new solutions to problems with light supervision and possess a strong sense of ethics aligned to national aspirations and global citizenship. S/he will be able to function in an environment of broad degree of autonomy.</p>	<p>At this level, a learner will show a high mastery of knowledge in specific field/field of study/work and professional practice exemplifying strong theoretical knowledge, critical thinking, and creative and innovative skills. S/he will be able to generate new solutions to problems and conduct research under minimal supervision. S/he will possess a strong sense of ethics aligned to national aspirations and global citizenship. S/he will be able to function in an environment of broad degree of autonomy.</p>	<p>At this level, a learner will demonstrate critical understanding and application skills, which are at the frontier of a field of study or professional practice. S/he will be able to independently conduct, manage, and lead research that contributes to substantial, new and original knowledge, and/or professional practice and global citizenship. S/he will possess a strong sense of ethics aligned to national aspirations and global citizenship. S/he will be able to function in an environment of broad degree of autonomy.</p> <p><i>Note: The doctoral degree is the higher-most qualification and it does not include Honorary doctorates.</i></p>
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## Appendix 4: Learning Outcome Domains and Level Descriptors

Level	Domains	Level Descriptors
BNQF Level 7	Fundamental Skills	<p>3-year Bachelor's</p> <ol style="list-style-type: none"> <li>7. demonstrate an understanding of a broad range of moderately complex, technical and theoretical knowledge to address varied, complex task/work;</li> <li>8. identify, interpret, apply and evaluate concepts, theories and skills within a defined context of a subject area/field of study, discipline or work;</li> <li>9. apply knowledge and skills in addressing issues/solving problems in a well-defined area of non-routine and non-predictable work/task with minimal supervision;</li> <li>10. supervise practices and process operation in his/her respected field of specialization;</li> <li>11. review and make adjustments to operations under minimal supervision in his/her field; and</li> <li>12. display advanced digital literacy which is adequate to perform complex task.</li> </ol> <p>4-year and 5-year Bachelor's</p> <ol style="list-style-type: none"> <li>7. demonstrate knowledge and critical understanding of the well-established principles of his/her field of study, and of the way in which those principles have developed;</li> <li>8. 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;</li> <li>9. apply knowledge and skills in addressing issues/solving problems with minimal supervision;</li> <li>10. evaluate critically the appropriateness of different approaches to solving problems in his/her field of study;</li> <li>11. support supervision of junior staff via a mentor or a leader/manager; and</li> <li>12. display advanced digital literacy which is adequate to perform complex tasks and bring about solutions.</li> </ol>
	Social Skills	<p>3-year Bachelor's</p> <ol style="list-style-type: none"> <li>5. communicate and interact effectively and clearly, ideas, information, problems and solutions as a team to peers, experts and non-experts in Bangla and English;</li> <li>6. demonstrate appreciation of cultural diversity in Bangladesh;</li> <li>7. work in a team both professionally and as a member of the larger community; and</li> <li>8. display advanced civic literacy and knowledge, as well as exercising civic rights and obligations at a local, state and national level.</li> </ol> <p>4-year and 5-year Bachelor's</p> <ol style="list-style-type: none"> <li>7. communicate and interact effectively and clearly, ideas, information, problems and solutions as a team to peers, experts and non-experts in Bangla and English;</li> <li>8. express her/himself fluently and spontaneously in English and Bangla;</li> <li>9. use language flexibly and effectively for social, academic and professional purposes;</li> <li>10. produce clear, well structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices in advanced proficiency level of Bangla and English;</li> <li>11. demonstrate the ability to incorporate entrepreneurial skills in planning daily activities; and</li> </ol>

Level	Domains	Level Descriptors
		12. display advanced civic literacy and knowledge, exercising civic rights and obligations at all levels as well as participating in changes for the improvement of Bangladesh society.
	<b>Thinking Skills</b>	<p><i>3-year Bachelor's</i></p> <ol style="list-style-type: none"> <li>6. work under broad supervision demonstrating a substantial degree of personal responsibility and within a structured work context;</li> <li>7. exhibit a degree of personal responsibility and autonomy under broad guidance and directions within well-defined and non-routine context of study or work activities performed in a wide variety of contexts;</li> <li>8. demonstrate supervisory, collaborative skills and responsibility for work performance of others;</li> <li>9. demonstrate the appreciation of problems in a moderately wide range of work and propose solutions; and</li> <li>10. have professional knowledge and practical skills in both technical and management to lead a team in inexperienced environment.</li> </ol> <p><i>4-year and 5-year Bachelor's</i></p> <ol style="list-style-type: none"> <li>3. exercise very substantial degree of autonomy and often significant responsibility in making judgments/ decisions towards the management of self, others and for the allocation of substantial resources; and</li> <li>4. demonstrate professional knowledge and practical skills in both technical and management to lead a team in inexperienced environment.</li> </ol>
	<b>Personal Skills</b>	<p><i>3-year Bachelor's</i></p> <ol style="list-style-type: none"> <li>4. demonstrate self-direction for learning and career development;</li> <li>5. solve problems by taking into account social, professional and ethical issues; and</li> <li>6. be a responsible and an ethical member who substantially contributes to the society.</li> </ol> <p><i>4-year and 5-year Bachelor's</i></p> <ol style="list-style-type: none"> <li>4. engage in self-direction and self-enterprise skills;</li> <li>5. demonstrate social, professional, environmental and ethical practice/ values;</li> <li>6. show-case global knowledge and competencies to fulfil employment, entrepreneurial and lifelong learning skills; and contribute significantly to the society.</li> </ol>
<b>BNQF Level 8</b>	<b>Fundamental Skills</b>	<ol style="list-style-type: none"> <li>6. demonstrate advanced and comprehensive theoretical and technical knowledge in a specialized field, or of a multidisciplinary nature, which is related to field of study or work;</li> <li>7. exhibit intellectual independence in the deployment of knowledge within specific field by applying critical, analytical and evaluation skills;</li> <li>8. manage and solve complex application and unpredictable issues with creative and innovative solution in the field of study or work place/practice;</li> <li>9. describe and comment upon particular aspects of current research, or scholarship, in the field of study; and</li> <li>10. use a broad range of information, media and technology applications to support study and/or work.</li> </ol>
	<b>Social Skills</b>	<ol style="list-style-type: none"> <li>5. convey ideas in written and oral forms using appropriate and different presentation techniques, reliably, accurately and to a range of audience in Bangla and English;</li> </ol>

Level	Domains	Level Descriptors
		<ul style="list-style-type: none"> <li>6. produce clear, well structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices in advanced proficiency level of Bangla and English;</li> <li>7. work collaboratively with different people in learning and working communities; and</li> <li>8. demonstrate knowledge of cultural, governmental, and environmental issues at a regional level, in relation to issues within Bangladesh and participating in changes for the betterment of the nation.</li> </ul>
	<b>Thinking Skills</b>	<ul style="list-style-type: none"> <li>3. exercise significant leadership, professionalism in managing responsibilities within broad organizational parameters; and</li> <li>4. produce clear, well structured, detailed text on complex subjects in solving problems, showing controlled use of organizational patterns, connectors and cohesive devices in advanced proficiency level of Bangla and English.</li> </ul>
	<b>Personal Skills</b>	<ul style="list-style-type: none"> <li>4. engage in self-directed lifelong learning effectively and demonstrate entrepreneurial skills;</li> <li>5. demonstrate a relatively high degree of social, professional, environmental and ethical practice/ values; and</li> <li>6. demonstrate appreciation of cultural diversity in Bangladesh in contributing to society.</li> </ul>
<b>BNQF Level 9</b>	<b>Fundamental Skills</b>	<ul style="list-style-type: none"> <li>7. demonstrate a systematic understanding of advanced knowledge and skills which may be at the forefront of a field/fields of study, discipline or practice;</li> <li>8. analyse general and advanced range of specialized theories, concepts, principles and complex information and method within a field/fields of study, discipline or practice;</li> <li>9. apply knowledge and skills to manage complex matters;</li> <li>10. synthesise complex information, concepts, theories and problems in a field/ fields of study or practice as a basis for research;</li> <li>11. carry out semi-specialized research and/or apply practical skills, tools or techniques which are informed by the forefront latest development in the subject or discipline to solve and manage complex problems or solve issues in a field/ fields of study or practice; and</li> <li>12. competently use a wide range of suitable software ICTs to enhance study, research and/or work/practice.</li> </ul>
	<b>Social Skills</b>	<ul style="list-style-type: none"> <li>5. communicate clearly the knowledge, skills, ideas, critique and conclusion/rationale using appropriate methods to experts, specialists and peers and non-expert range of audience both in Bangla and advanced English;</li> <li>6. work with different people in learning and working community and other groups and networks;</li> <li>7. function effectively as a member of a community; and</li> <li>8. demonstrate advanced knowledge of cultural, governmental, and environmental issues at a regional and international level, in relation to issues within Bangladesh and actively participating in and advocating for changes/solutions for the betterment of the nation.</li> </ul>
	<b>Thinking Skills</b>	<ul style="list-style-type: none"> <li>3. be independent and individually responsible for work, professional practice, systems, processes and decision-making on complex problematic matters or issues within the academic, professional or technical settings (a field of study and/or professional practice and/or in multi-disciplinary context); and</li> <li>4. demonstrate significant autonomy, leadership qualities, interpersonal skill and responsibilities - (planning, resource management, supervision and</li> </ul>



Level	Domains	Level Descriptors
		problem solving) in managing work within a team and others.
	<b>Personal Skills</b>	<ol style="list-style-type: none"> <li>4. demonstrate self-advancement through continuous academic and/or professional development;</li> <li>5. observe legal, ethical and professional codes of practice; and</li> <li>6. demonstrate appreciation of cultural diversity in Bangladesh in contributing to the society.</li> </ol>
<b>BNQF Level 10</b>	<b>Fundamental Skills</b>	<ol style="list-style-type: none"> <li>9. demonstrate understanding which is comprehensive, systematic, integrated and undertake critical analysis and synthesis of new, complex and abstract ideas of current critical issues in the most advanced frontiers of knowledge of a field of study, or discipline, or practice and related principles, theories, practice or techniques/ technology;</li> <li>10. make substantial / significant contribution/ through the creation/production/innovation of new knowledge/theories/practice/solutions which can satisfy peer reviews, meeting international standards through communications in internationally refereed publications;</li> <li>11. analyze, evaluate and synthesize expert knowledge in specific fields and practice;</li> <li>12. demonstrate mastery of practical, technical skills/practices and scientific skills which is at the forefront of one or more area of specialization and develop new complex skills or techniques and solutions to resolve new highly complex and emerging problems;</li> <li>13. design and implement or adapt highly advanced, specialized research methodologies which are at the forefront of one or more areas of specialization;</li> <li>14. initiate, conduct, manage, supervise and lead future independent original research initiatives;</li> <li>15. provide informed expert/professional opinion and judgment on new and emerging issues in the related fields; and</li> <li>16. use/select/improve existing or develop new appropriate software to support and enhance research activities.</li> </ol>
	<b>Social Skills</b>	<ol style="list-style-type: none"> <li>6. communicate effectively research findings to peers, scholarly community and society at large in the relevant field of expertise in Bangla and advanced English;</li> <li>7. work with different people in learning and working community and other groups and networks;</li> <li>8. convey information, insights, ideas, problems and present solutions cogently/coherently to peers, scholarly community and society at large in the field of expertise;</li> <li>9. contribute to the technical, social and cultural progress in the academic and professional practices to the society on emerging issues; and</li> <li>10. demonstrate expert/professional knowledge of cultural, governmental, and environmental issues at a regional and international level, in relation to issues within Bangladesh and</li> </ol>

Level	Domains	Level Descriptors
		actively advocating for and initiating changes/solutions for the betterment of the nation.
	<b>Thinking Skills</b>	<ol style="list-style-type: none"> <li>5. be independent and individually responsible for work, professional practice, systems, processes and decision-making on complex problematic matters or issues within the academic, professional or technical settings (a field of study and/or professional practice and/or in multi-disciplinary context);</li> <li>6. demonstrate autonomy, leadership qualities, interpersonal skill and responsibilities - (planning, resource management, supervision and problem solving) in managing work within a team and others;</li> <li>7. be independent original research initiatives with the view to resolve an existing issue; and</li> <li>8. display expert judgment, and responsibility to promote/contribute towards technological, social and cultural development.</li> </ol>
	<b>Personal Skills</b>	<ol style="list-style-type: none"> <li>5. take full responsibility for own work and where relevant be accountable for overall management of the research;</li> <li>6. adhere to legal, ethical and professional codes of practice as a natural part of her/his personality;</li> <li>7. integrate knowledge for lifelong learning, development of new ideas, solutions and systems; and</li> <li>8. demonstrate appreciation of cultural diversity in Bangladesh in contributing to the society.</li> </ol>