

Standard Operating Procedures (SOPs) for Implementation of National Credit Framework (NCrF) in Vocational Education, Training and Skilling (VETS)

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ABSTRACT

The NEP 2020 with its motto of equitable and inclusive education lays emphasis on the integration of general (academic) education, and vocational education ecosystem with a view to reform academic main stream as well as TVET and to provide opportunities for life-long learning. The NCrF aims to integrate and creditize all kinds of learning acquired through different modes. Further, it encompasses school education, higher education and VETS to ensure flexibility, inclusivity, and mobility. The NCrF is a meta framework that encompasses and integrates learning based on the different qualification frameworks, namely, NHEQF, NSQF and NCF as highlighted in this article. The NCrF notified by UGC shall act as the broad enabling and guiding frameworks which shall be supplemented by these SOPs and guidelines for operationlization of NCrF in Vocational Education, Training and Skilling (VETS) for organizations and institutions. The modus operandi for implementation and integration of Skill-based courses / qualifications in Education to address the vision of NEP and NCrF of holistic and multi-disciplinarity education . along with it, the present article will also highlight the SOP for Implementation and Integration of Skill-based Courses / Qualifications in Education, by and large, as well as the Implementation and Integration of same type courses in Higher Education and School Education.

Keywords : Standard Operating Procedures (SOPs), National Credit Framework (NCrF), Vocational Education, Training and Skilling (VETS), Education, Higher Education, School Education, NEP, 2020,m Assignment of Credits

I. INTRODUCTION

The National Credit Framework, duly approved by the government has been notified by UGC on 10th April 2023 (<https://www.ugc.gov.in/Ncrf.aspx>). The NCrF has been adopted by NCVET on 12th May 2023. Subsequently, the Dept. of Higher Education vide its order dated 10th May 2023 constituted a High-level Committee (HLC) to oversee the operationalization and implementation of NCrF. The NCrF provides for creditization of all learning including academic, vocational/ skills & experiential learning, and assignment, accumulation, storage, transfer & redemption of credits, subject to assessment; removes distinction between subjects and establishes academic equivalence between vocational & general education while enabling mobility within & between them, and its operationalization through the Academic Bank of Credits (ABC).

II. PROVISION OF NEP & NCrF WITH REFERENCE TO INTEGRATION OF VETS IN EDUCATION AND HIGHER EDUCATION

The National Education Policy 2020 (NEP 2020) envisions making education more holistic and effective by inculcating more “experiential, holistic, integrated, inquiry-driven, discovery oriented, learner-centred, discussion-based, and flexible” learning and by removing hard separation between the various disciplines like Arts, Science & Commerce and also between curricular, co-curricular and extra-curricular activities. NEP 2020 with its motto of “equitable and inclusive education” lays emphasis on the integration of general (academic) education, and vocational education ecosystem with a view to reform mainstream academic as well as technical and vocational education and training (TVET) provision in India and provides avenues for life-long learning

through enhanced opportunities. This also is in-line to fulfil the objectives of sustainable development goals (SDGs) both directly and indirectly.

To realize the intent of NEP 2020, the National Credit Framework (NCrF) is formulated by the Government of India and notified by UGC on 10th April 2023 and the same was further adopted by NCVET on 12th May 2023 to cater to the needs of all stakeholders including students, institutions and industries with an aim of creditization of learning from various dimensions i.e. academic, vocational skills, experiential learning including relevant experience and proficiency/ professional level.

The National Credit Framework (NCrF) is an enabling framework and aims to integrate and creditize all kinds of learning acquired through different modes like offline, online and blended by removing any kind of distinction between disciplines, subjects and curricular, extra-curricular and co-curricular activities and encompasses school education, higher education and vocational education and training /skilling to ensure flexibility, inclusivity, and mobility. NCrF enables the assignment, accumulation, storage, transfer and redemption of credit with multiple entry and multiple exit (ME-ME) options to facilitate academic equivalence and lifelong learning. NCrF supports the provisioning of on-demand learning, on-demand assessments and Recognition of Prior Learning (RPL) for learners, coming from non-formal/informal ecosystems, or out of school students thereby allowing for Lifelong learning and mobility of learner both nationally and internationally.

As mentioned in the NCrF, predefined learning outcomes and assessment is the basis of creditization. The credit assignment is subject to achieving the prescribed learning outcomes determined by successful assessment. The assessment bands therefore hold crucial relevance in determining the accumulation and further transfer of credits. The

NCrF is a meta framework that encompasses and integrates learning based on the different qualification frameworks namely NHEQF, NSQF and NCF.

The NHEQF, NSQF and NCF are highlighted in the following table along with various assessment bands :

Academic Band/ Hours of Learning per year	Academic Grade/ Levels- School Education & Higher Education	Vocational Education Long Term Trg/ Short Term Trg (LTT/STT)	National Credit Framework (NCrF) Credit levels	Credits Earned/ year	Credit Points Earned	Assessment Stage and equivalence
Doctoral Degree	PhD	NSQF Level 8 STT	8.0	40	320	
PG degree (1/2 yrs)/ ME/ M Tech (120	PG- 2 nd (Eng)	NSQF Level 7 STT	7.0	40	280	M.Tech. 2nd Yr./ Engg PG Degree
	PG – 2 nd yr/ PG 1st yr (Eng)	NSQF Level 6 STT	6.5	40	260	PG Degree/ M.Voc / M.Sc (eng)
4-year UG with honours/ Honours with Research / PG – 1 st yr	4-year UG with honours/ Honours with Research / PG – 1 st yr	NSQF Level 6 STT	6.0	40	240	UG- Degree (Hons)/ PG Diploma/ B.Tech/B.E
	UG- 3 rd Year	10th+5-Yr NTC/NAC/CITS, 12th+3-Yr NTC/NAC/CITS, NSQF Level 5.5 STT	5.5	40	220	UG- Degree/ B.Voc/ B.Sc Eng
	UG- 2 nd Year	10th+4-Yr NTC/NAC/CITS, 12th+2-Yr NTC/NAC/CITS, NSQF Level 5 STT	5.0	40	200	UG- Diploma/ Diploma Eng
	UG- 1 st Year/equivalent	10th+3-Yr NTC/NAC/CITS, 12th+1-Yr NTC/NAC/CITS, NSQF Level 4.5 STT	4.5	40	180	UG- Certificate
2 year- Senior	Class XII	10th+2-Yr	4.0	40	160	Class XII

Academic Band/ Hours of Learning per year	Academic Grade/ Levels- School Education & Higher Education	Vocational Education Long Term Trg/ Short Term Trg (LTT/STT)	National Credit Framework (NCrF) Credit levels	Credits Earned/ year	Credit Points Earned	Assessment Stage and equivalence
Secondary (1200 Hrs/yr)		NTC/NAC/CITS, NSQF Level 4 STT				(thru CBSE/ School Boards/ NIOS)
	Class XI	10th+1-Yr NTC/NAC/CITS, NSQF Level 3.5 STT	3.5	40	140	Class XI (thru CBSE/ School Boards/ NIOS)
2 Year Secondary (1200 Hrs/yr)	Class X	8 th+2-Yr NTC/NAC, NSQF Level 3 STT	3.0	40	120	Class X (thru CBSE/School Boards/ NIOS)
	Class IX	8 th+1-Yr NTC/NAC, NSQF Level 2.5 STT	2.5	40	100	Class IX (thru CBSE/ School Boards/ NIOS)
3 year- Middle (1200 Hrs/yr)	Class VIII	NSQF Level 2 STT	2.0	40	80	Class VIII (thru School Boards/ NIOS)
	Class VII		1.67	40	67	
	Class VI		1.33	40	53	
3 year Preparatory (1000 Hrs/yr)	Class V	NSQF Level 1 STT	1.0	33	33	Class V (thru Sch
	Class IV		0.8	33	26.4	
	Class III		0.6	33	19.8	
5 year Foundational (800 Hrs / yr)	Class II		0.4	27	10.8	
	Class I		0.2	27	5.4	
	Pre-School (3 Years)		0.1 x 3	27x3=81	8.1	

Note : Where NTC: National Trade Certificate, NAC: National Apprentice Certificate, CITS: Crafts Instructor Training Scheme, NIOS: National Institute of Open Schooling

III.IMPLEMENTATION OF NCRF IN VETS / SKILL BASED QUALIFICATIONS / COURSES

Assignment of Credits

As per NEP and NCrF, all types of learning can be creditized including academic, Skill based qualification/course as well as the experiential learning. Such skill-based courses/ qualifications can be either a stand-alone course/ qualification/ subject or it can be integrated/ embedded within a UG/ PG level curriculum of HEI/ university or in a school subject.

As mentioned in the section 5.6.1, all the NSQF aligned and approved Skill-based courses/ qualifications are generally in the multiple of 30hrs or 15 hours. The individual NOSs of a course/ qualification can be in multiple of 15 or 30 hours, while a Micro-Credential (MC) can be in multiple of 7.5 hours. As mentioned in the NCrF document, on an average 30 notional hours of learning is equal to 1 credit and hence courses/ qualifications represented in either multiple or factor of 30 enable easy calculation and accounting for creditization of all NSQF aligned and approved courses/ qualifications. All the Vocational Education, Training and Skilling courses/ qualifications are already following this process.

As mentioned in the section earlier, a skill-based course/ qualification may have the following components of learning:

a)	L= Theoretical learning/ Lecture	calculated in Hours
b)	P= Practical learning/ Hands-on learning of Skills	calculated in Hours
c)	O= On the job training (OJT)	calculated in Hours
d)	I= Internship	calculated in Months
e)	A=Apprenticeship	calculated in Months

The theoretical learning/ lecture, practical learning/ hands-on learning of skills and OJT components within a qualification/course are calculated in terms of notional learning hours while the apprenticeship/ and internship components are calculated in terms of their duration in months. For creditization of a skill-based course/ qualification, considering all types of programs, the following formula may be used:

$$\text{No of Credits earned for a course/ qualification} = (L+P+O)/30 + (I+A)*(40/12)$$

The credit assignment for internship/ apprenticeship (including schemes like NAPS and NONNAPS) will be dependent on their duration in months instead of the notional learning hours. Thus, 3 months of internship/ apprenticeship will be equal to 10 credits. While 12 months of internship/ apprenticeship will earn 40 credits subject to assessment.

The NCrF provides for creditisation of all types of learning in three dimensions/ axis namely Academics on the X-axis; Vocational Education, Training and Skilling on the Y-axis; and Experiential learning, including work experience and proficiency levels achieved on the Zaxis. The standardized entry norms notified in the NCrF aligned NSQF guidelines take into consideration the relevant experiential learning of the Student/ Learner on Y-axis in VETS while considering their eligibility for entry to a NSQF course/ qualification at every NCrF/NSQF level.

The Blended Learning/ Digital Learning/ Online Learning: NCrF provides for creditization of skill based NSQF courses/ qualifications irrespective of the mode of its delivery, i.e. Offline, Online and hybrid/blended learning, subject to the Blended Learning Guidelines for Vocational Education, Training and Skilling as mentioned in para 4.2.1 (iv) of the SOP. The Creditization method for the blended learning programs is at Annexure IV. 6.1.8. The

online courses offered by learning platforms which are recognized or authorised by the respective regulators/ Government shall earn credits/ can be creditized subject to the provisions/ conditions laid down by the respective regulators.

Creditization of Exceptional Achievements/ Performance: NCrf also provides for special provision with respect to creditization of the exceptional achievements/ performance of the students/ learners in games and sports, performing arts, fine arts, social work, Indian Knowledge System (IKS), NCC, or other similar subjects/ categories.

There are two possible ways the learning activities can be undertaken by the student/learner : i. As part of the curriculum as a subject: The credits & level for this would be in accordance with the curricular structure prescribed by the school board/ university/ autonomous institute which shall be creditized at the same NCrf level as that of the course. For e.g., a music/arts courses/ qualifications undertaken in 1st

year UG shall be of NSQF level; ii. As a standalone learning activity: The concerned authority / entity, as applicable, will determine the mechanism for credit calculation. The assessment criteria for all these activities are to be well defined. In case of the assessment of special/ exceptional skills the entities/agencies of national/ international repute and integrity may be considered for grant of a Deemed Assessment Agency status by the regulator concerned, if so required. In such standalone activities, the NSQF level will be determined based on outcome pre-defined for the Recognition of Prior Learning (RPL) and Level Descriptors or any other criteria in special/ exceptional cases as may be determined by the concerned authority/entity. The general minimum conditions applicable before, during and after such learning activity are as follows:

Pre- Assessment (1)	During Assessment (2)	Post- Assessment (3)
1. Minimum notional learning hours to be indicated. 2. Learning Outcomes to be clearly defined together with entry requirement/ and NCrf Level. 3. Assessment methodology to be clearly specified	1. Implementation and Execution 2. Conduct Assessment to ascertain the credible, visible and measurable outcomes/ achievements with integrity	1. Any additional assessment requirement 2. Credit assignment as per NCrf

NCrf provisions that credits are subject to achieving the pre-defined/ prescribed learning outcomes determined through successful assessments. Accordingly, the learners with varying pace of learning, both fast and slow can earn credit for undergoing Skill-based courses/ qualifications/ training programs. The credits for such a training program will be as per the actual duration of the

qualification and not as per the extended or shortened hours to compensate the learning pace of the learner. A learner with fast pace of learning (also called as education acceleration) can be permitted to be assessed for the NSQF levels without completing the prescribed number of notional learning hours. However, clearing the assessment band would be mandatory. Similarly, for learner with slow pace of

learning like in case of learners with intellectual disability (ID), the actual learning hours may have to be extended to accommodate the pedagogical requirements of the student/ learner. This is provisioned while defining the Skill-based courses/ qualifications.

Creditization of Skill Based Diploma Qualifications: The long-term Vocational Education, Training and Skilling ecosystem comprises of qualifications implemented by DGT through Industrial Training Institutes as well as the qualifications submitted by other recognised Awarding Bodies, with duration of more than 1200 hours. With the concurrence of UGC

and AICTE, the NCVET has formulated detailed guidelines on NSQF alignment and approved Diploma and Diploma (advance) specific to skilling ecosystem. These qualifications are higher level Vocational Education, Training and Skilling course/ qualification, not leading to degree. However, these can be considered for lateral entry into degree programs. The following entry criteria and duration is applicable to such courses/ qualifications:

Type	Entry Requirement	Duration (in years or hours)*	Years of Learning	NCrF Level	Credit Points Earned Yearly	Cumulative Credit Points
Diploma	10th pass	3 years/ 3600 hrs	1 st Year	3.5	140	480
			2 nd Year	4	160	
			3 rd Year	4.5	180	
	Lateral Entry (in second year of Diploma): 12th pass in relevant subject or 2 year NTC/NAC after	2 years/ 2400 hrs	2 nd Year	4	160	340
			3 rd Year	4.5	180	
Diploma (Advanced)	12th pass in relevant subject or 2-year NTC/NAC after 10th in the relevant trade	2 years/ 2400 hrs	1 st Year	4.5	180	380
			2 nd Year	5	200	

Accumulation and Storage of Credits

As mentioned above, every student undergoing a NSQF aligned course/ qualification is required to have a unique APAAR id. The APAAR id can be created by a) student himself using Digi locker; b) Awarding body and c) Training partner through the Awarding Body; . The Awarding Body is additionally also required to register itself as well as provide the student/ learner details in the Skill India Digital Hub (SIDH) to enable issuance of NCVET certificate for the NSQF aligned and approved Qualification/ course

on which the student/ learner has been trained and assessed.

The AB concerned also needs to ensure that details of the courses/ qualifications (Qualification/ NOS/ MC Code) along with the assessment credentials including the NCrF Level, the credits earned, validity of the credits and Mark sheet/grade be made available on the ABC portal. The credits earned within the same assessment band can be accumulated and added. Further, the credits accumulated and stored in the ABC may also be calculated in terms of Credit Points

which is multiplication of the total credit earned with the NCrf level at which the credits are earned. In case of experiential learning and the proficiency levels achieved, the overall credit points earned will be Credit points earned for the job-role multiplied by the weightage factor which is to be prescribed by the concerned regulator/ the professional body. One such factor as mentioned in the notified NCrf Report could be 'number of years of experience' of attaining the required Qualification for a Job Role (refer Table 7 of the NCrf Report). This axis would have to be developed in close collaboration and understanding of the trade bodies involved. A separate set of guidelines would be developed and issued once the stakeholders in school education, higher education and vocational education, training and skilling develop a comprehensive understanding of NCrf report and its implementation attains a level of maturity.

The accumulated credits stored in ABC are redeemable, for a suitable award i.e., Skill Competency Certificate, Diploma or Advance Diploma as may be prescribed by the regulator concerned.

Transfer and Redemption of Credits

The credits earned by a learner are transferable for redemption. These credits earned can be utilized for establishing entry/eligibility criteria for a program/employment opportunity; or for establishing Academic Equivalence between two different types of program, and for enabling Multiple Entry-Multiple Exit options. Learning outcomes of courses, competencies achieved and the NCrf levels attained shall be the basis for considering the eligibility of students/ learners for lateral entry as well as for the purpose of counting the credits earned. Therefore, carefully framing the 'Learning Outcomes and Competencies' of each course/ qualification/program is important. For credit transfer, it is important to undertake appropriate mapping of the curricular structures of the programs between institutions to establish Equivalence for credits earned from different

credit awarding bodies on their courses/ qualifications. While establishing Academic Equivalence, the institution may also prescribe additional learning/ credit requirements, including that of a bridge course, if so required. The institution accepting the credits from the previous institution may also prescribe/devise suitable mechanism for admission of the students to a program.

In the long-term VETS ecosystem, DGT and other ABs will work out the system for allowing an 8th /10th grade pass student/ learner a lateral entry in the 2nd year of 2-year CTS program of DGT (in certain specified trades) after accumulating the requisite credits in the relevant trade (equivalent to 9th /11th grade) in the relevant trade. The lateral entry will however, subject to assessment criteria as determined by the designated authority, as suggested in the NCrf. In case of Short-Term Training (STT), the credit transfer will be in accordance with the entry criteria prescribed in NSQF notification in form of entry criteria for various NSQF levels for academic Equivalence. The award issuing authority, e.g. a school board can further prescribe additional requirements, including that of a bridge course in language, if felt necessary for such academic equivalence. For establishing equivalence, the credit transfer between Boards/Universities/ Autonomous Institutions is possible based on the mapping of programs and courses offered. The Universities/ Colleges will accept 10th + 2-year ITI pass out who has secured 12th certificate through NIOS/ any other designated agency, at par with other 12th pass candidates for entry into 1st year of a UG program. School Boards, including CBSE, will accept 8th + 1 or 2 years ITI plus certification through NIOS/ any other designated agency of 9th/10th Grade for admission into regular school at 10th/11th Grade. The avenues of Multiple Entry Multiple Exit to enable lifelong learning opportunities for Students/Learners for skill-based courses/ qualifications (NSQF aligned and approved-LTT qualifications), are detailed in NSQF notification dated 6th June 2023.

The validity of a NSQF aligned and approved courses/ qualifications is generally three years, unless otherwise specified in the particular course/ qualification, with provision for further extension after proper justification. However, the validity of the credits earned after undergoing training in a NSQF aligned and approved qualification will depend on the type of VETS qualification. In General, the validity of credits earned through a VETS qualification, unless otherwise specified in the qualification, shall be as below:

- i. General/lifelong learning/cognitive learning: Lifetime validity
- ii. Conceptual learning with detailed skills: 7 years validity
- iii. Conceptual learning with skills on Future Technologies: 3 years Validity

In case a student/ learner wishes to redeem the credits earned after the validity of the credits for a Skill-based course/ qualification has expired, the student/ learner may go for re-validation of the credits of the course/ qualification through a well-defined assessment mechanism like RPL. The revalidation of the credit earned by a learner/student is primarily applicable for redemption in case of academic education including the school and higher education. Such credits after the validity period would be reflected as 'Require re-validation for redemption' on ABC. The concerned institution, undertaking such assessment for revalidation may also recommend additional bridge module while doing the re-validation process. The responsibility of the re-validation of such courses along with assessment and credits will be that of the concerned regulator and appropriate mechanism for the same may be prescribed/developed. In context of employment/job, it shall be the responsibility and discretion of the employer to access the eligibility and credentials of the candidate for a particular position and the validity of credit even if expired may not be a relevant criteria for an employer.

IV. IMPLEMENTATION AND INTEGRATION OF SKILL-BASED COURSES / QUALIFICATION IN EDUCATION

NCrF enables integration of Vocational Education, Training and Skilling into education to address the vision of NEP and NCrF of holistic and multi-disciplinarity education. Accordingly, a wide range of skill-based courses/ qualifications may be integrated/ embedded into education having pre-defined Learning outcomes and assessment criteria. The process of developing, approval, and implementation of NSQF aligned and approved Skill-based courses/ qualifications is detailed in the original document. The NSQF aligned skill-based courses/ qualifications can be offered offline, online or in blended mode to ensure better reach, as per requirement subject to the regulatory guidelines in this regard. The courses/ qualifications can be introduced as either as a separate course/subject or as part of another course/subject. iii. In case of blended learning, the Learner may use the support digital/ e-content/ material, for example videos of factory tour, or warehouse tour etc., which may consume some hours. The ratio of online Vs offline learning against the various components of Skill-based course/ qualification is customizable as per the need of the qualification and implementing institution. While integrating the NSQF aligned and approved course/qualification with education the credits of the NSQF aligned skill-based course shall be computed as per the credits assigned for the NSQF aligned and approved Qualification as given in section 6.1.

4.1. Integration of Skill-based Courses / Qualification in Higher Education

The NCrF enables the Universities/ Higher Education Institutes to integrate and embed the vocational education training & skilling (VETS) based courses/ qualifications. This integration can be done in any of the following ways:

4.1.1. Integration of VETS in Higher Education as part of Curriculum/ as Additional courses for their students enrolled in UG/ PG Programs

As per the provisions in the NCrf, up to 50 percent of the total credit requirement of a UG/ PG program can be fulfilled by earning credits from the Skill based courses / Qualifications of appropriate NCrf levels (4.5 to 8). Such Skill-based courses/ qualifications may be implemented in different ways by the HEIs for their enrolled students as given below:

- a. As part of the UG/ PG curriculum - Such courses/ qualifications, may be NHEQF or NSQF aligned, and are integrated as part of the curricular structure of the UG/PG program.
- b. As additional courses/ qualifications, not integrated within the curriculum of a UG/ PG program or offered as a standalone course/ qualification - The HEIs may offer relevant skill-based courses/ qualifications over and above their approved curricular structures with provision of additional credits. While additional course/ qualification may be related to the curricular stream of the student/learner, the standalone course/ qualification could also be totally unrelated to the curricular stream of the UG/PG Program but supports the holistic development of the learner. Such courses/ qualifications could either be NHEQF or NSQF aligned.

HEIs may offer Skill-based NHEQF courses/ qualifications developed by them with the approval of their highest Academic Body/ authority. The HEIs may also implement NSQF aligned and approved skill-based courses/ qualifications to their enrolled UG/ PG students, carry out assessments to ascertain the learning outcomes and issue their own certificates for such courses/ qualifications subject to successful assessment.

At present, the curricular structure/ design in Higher Education for their UG program is based on the guidelines for Four Year UG program, which includes Vocational Education, Training and Skilling as an important component of learning. In the Original

document an illustration on how skill-based courses/ qualifications can be integrated with the curricular structure of a UG program is given in the original text. The skill-based courses/ qualifications can also be implemented as:

- a. Ability Enhancement Course, Skill Enhancement Course, Value added common courses or as Summer Internship programs.
- b. The foundational or upskilling courses/ qualifications which may form part of skill/ability enhancement courses.
- c. As part of the Major or Minor stream in the curriculum.

4.1.2. Offering Standalone Skill-Based NHEQF courses/ qualifications by HEIs to the learners beyond their regular UG/ PG students

HEIs may offer Skill-based NHEQF courses/ qualifications developed by them with the approval of their highest Academic Body/ authority to the students/ learners beyond their regular UG/ PG students subject to their jurisdiction as permitted by their Statutes. The learners may be issued an HEI Skill Certificate by the HEI concerned with Skill India branding for such NHEQF courses/ qualifications.

4.1.3. Offering Standalone Skill-Based NSQF courses/ qualifications by HEIs to the learners beyond their regular UG/ PG students

In case any HEI wants to operate in the VETS ecosystem and offer the NSQF aligned and approved Skill based courses / qualifications of appropriate NCrf levels 4.5 and above as standalone courses, to learners beyond their regular enrolled UG/ PG students, the HEI may do so if it is a recognised Awarding body (AB) of NCVET. As an AB, HEIs may implement NSQF aligned and approved skill-based courses/ qualifications, to the students/ learners beyond their regular UG/ PG students subject to their jurisdiction as permitted by their Statutes, and issue NCVET certificates, with Skill India branding, for such courses/ qualifications subject to successful assessment. . As an AB, HEI may also develop an NSQF course/ qualification with the approval of

National Skills Qualification Committee (NSQC). NSQC includes members /representatives from UGC and AICTE. As an AB, the HEIs may also adopt NSQF aligned and approved qualifications out of more than 1300 courses / qualifications of NCrf level 4.5 and above (including 340+ future skill qualifications) in various sectors (list available at www.nqr.gov.in).

As long as the NSQF courses are being offered as part of the curricular structures which are duly approved by the highest academic body concerned of the HEI, no approval of NCVET would be necessary. The HEIs may implement and carry out the assessments in respect of the NSQF courses, assign credits and award certificates. The credits earned from such vocational/ skill-based courses from an HEI would not require further validation or approval from NCVET.

The credits assigned to the NSQF aligned course/ qualification integrated within curriculum or offered as additional/ standalone course/ qualification would be same as the credits specified in the NQR. To ensure quality and adherence to the required industry standards while implementing the NSQF courses, the HEIs would ensure that all the essential requirements of infrastructure, teachers/ trainers, assessors, skill/ practical labs/ workshops, and learning material etc are met with in accordance with the prescribed guidelines with respect to the courses/ qualifications concerned. In case the HEIs does not have the adequate facilities and resources to implement the course/ qualification, they may seek the assistance and support from the Sector Skill Councils, the Awarding Bodies or the Assessment Agencies concerned. Any credit from NSQF aligned skill-based courses earned by a student/ learner from an HEI, which remained unredeemed/ un-utilised, can be used for issuance of a skill certificate by the concerned HEI within the timespan prescribed and such certificate shall carry the name and level of the courses so completed. However, the skill certificate issued will be that of the HEI concerned and not an NCVET certificate unless the HEI is a deemed AB/ AB. Such certificate will also carry a Skill India Logo. In case of professional

courses regulated by the statutory bodies (UGC, AICTE, NCVET, NCTE etc.), their norms standards and guidelines shall apply while offering and implementing the skill-based courses/ qualifications.

All the HEIs implementing skill-based courses/ qualifications whether as part of the curriculum or for outside their regular UG/PG program for other learners shall ensure registration on Academic Bank of Credit (ABC) as well as share data with Skill India Digital Hub (SIDH) regarding the Skill-based courses/ qualifications as per the prescribed process. The HEIs to also ensure registration of their learners on the ABC through the APAAR id. Bridge courses may be conducted offline or online or blended mode or through SWAYAM portal or similar online platforms duly recognised by the regulator concerned for the purpose. For offering and creditising the courses conducted by an educational technology company (known as edTech companies) and making these as part of the curriculum, the guidelines of the respective regulators shall apply. To enable the interested HEIs to seamlessly design, develop and offer NSQF courses and qualification without the need to approach NCVET, the NCVET Council has already decided to grant the status of deemed awarding bodies to all the Institutes of National Importance (INIs), including all IITs, NITs, IISERs, NIDs, IIMs, Central Universities and Deemed Universities etc. These deemed AB HEIs would act as a dual Awarding body (AB) with PAN India jurisdiction. To enable INIs and Central Universities for this AB recognition, a simple format for 'Expression of Interest' has been developed for giving them formal and full recognition as an AB (Dual Category) and their on-boarding on Skill India Digital Hub (SIDH).

The deemed Awarding Bodies will also have access to all the available Vocational Education, Training and Skilling resources including model curriculum, e-content, Training of Trainers (ToT) & Training of Assessors (ToA) resources, skill training assistance and support from the Sector Skill Councils, Awarding

Bodies and Assessment Agencies concerned in implementation of the NSQF aligned and approved courses/ qualifications. The other interested HEIs may also get the status of a recognised awarding body for the purpose of developing and implementing the NSQF aligned Qualification in their authorised jurisdictions to the learners other than their regular students. For this purpose, a fast track process of recognition along with simplified application form for Awarding Body recognition has already been put in place by NCVET for HEIs. If a student from vocational education wishes to enter the general education at the next higher NCrf level or vice-versa, an expert committee of the HEI concerned (as detailed in the SOPs of Higher Education) may identify any gaps between the skill and education and suggest suitable bridge courses for establishing the eligibility or for admitting the students to general education/ vocational education. The details of parameters and provisions for integration of VETS courses/ qualifications in Higher Education Institutions/ Universities including General Universities and Skill Universities are given in the original document. The detailed guidelines for implementation of Skill based qualification/course in Higher Education Institutes may also be referred to in the SOPs for operationalising of NCrf in Higher Education.

4.2. Integration of Skill-based Courses Qualifications in School Education

At present, the following provisions in the curricular design in Schools (as per CBSE) in context of VETS are available : i. As per the National Curricular Framework (NCF), out of the 8 curricular areas one is vocational education. The NCF mandates that any vocational course introduced in the school education system needs to be NSQF aligned and approved. The students also have flexibility of choosing the subject of their choice from these 8 curricular areas as prescribed in NCF.

The General provisions applicable for integration of VETS in education shall be applicable for school education as well. The integration of VETS in school shall as per the provisions prescribed in the SOP for operationalization of NCrf in School Education being finalized by the concerned Sub-Committee chaired by Chairman, CBSE. Every School Boards may offer, as part of their NCF curricular structure, vocational and skill-based courses/ qualifications of the appropriate NCrf levels which are either designed/ developed by them as per National Curricular Framework (NCF) and approved by their highest State level academic body concerned or adopt the NSQF aligned and approved courses available on National Qualification Register (NQR) Portal at www.nqr.gov.in as per the requirement. Thus, such Skill-based courses/ qualifications may be implemented in different ways by the School Education Boards for their own students as given below :

- a. Skill based course integrated as part of the school curriculum- Such courses/ qualifications are offered as integrated as part of the curricular structure in school education and could either be NSQF aligned or as per the National Curricular Framework (NCF) for school education.
- b. Skill-based courses/ qualifications as additional course/ qualification or as standalone course not integrated within the curriculum of Schools- The Schools may offer relevant skill-based courses/ qualifications over and above their defined curricular structure with provision of additional credits. Such courses could either be NSQF aligned or NCF aligned for school education.

As long as the NSQF courses are being offered as part of their curricular structures which are duly approved by their highest academic body concerned, no approval of NCVET would be necessary. The School Boards may implement and carry out the assessments in respect of the NSQF courses, assign credits and award certificates. The credits earned from such vocational/ skill-based courses from a School Board would not require further validation or approval from

NCVET. The credits assigned to the NSQF aligned course/ qualification integrated with School curriculum or offered as additional/ standalone course/ qualification would be same as the credits specified in the NQR. Integration of VETS in School Education to learners beyond their regular school students: In case any the School Board wants to operate in the VETS ecosystem and offer the Skill based courses / qualifications of appropriate NCrf levels (upto NCrf level 4) as standalone courses, to learners beyond their regular school students, the following shall be applicable :

- a. The School Board will have to get the status of a dual category recognised Awarding body (AB) of NCVET.
- b. As an AB the school boards can either develop their own NSQF aligned courses/ qualifications and get the same approved by the NSQC or Adopt NSQF courses developed by other Awarding Bodies and duly approved by NSQC from www.nqr.gov.in after following the due prescribed process.
- c. Offer such NSQF courses/ qualifications as standalone courses/ qualifications in their jurisdictions to the students/ learners beyond their regular school students.
- d. NCVET certificate with Skill India branding shall be issued for such NSQF aligned and approved VETS courses/ qualifications.

School Boards are also encouraged to design/ develop the skill courses in collaboration with the industry to be creditised as NSQF Qualification approved by NSQC for offering to in the School Boards to students/ learners other than regular students, the same shall be permissible. Any NSQF course/ qualification to be offered by a School Board other than as part of their NCF/ School curriculum/ programs would require approval from National Skills Qualification Committee (NSQC).

Such skill-based courses/ qualifications can also be implemented within the jurisdiction of the School Board concerned as permitted by the Statute as

employability courses/ qualifications; skill enhancement courses/ qualifications or as skilling/ upskilling courses/ qualifications. To ensure quality and adherence to the required industry standards while implementing the NSQF courses, the School Boards would ensure that all the essential requirements of infrastructure, teachers/ trainers, assessors, skill/ practical labs/ workshops, and learning material etc are met with in accordance with the prescribed guidelines with respect to the courses/ qualifications concerned. In case the School Board does not have the adequate facilities and resources to implement the course/ qualification, they may seek the assistance and support from the Sector Skill Councils, the Awarding Bodies or the Assessment Agencies concerned. All the School Boards implementing skill-based courses/ qualifications whether as part of the curriculum or for outside their regular school curriculum for other learners shall ensure registration on Academic Bank of Credit (ABC) as well as share data with Skill India Digital Hub (SIDH) regarding the Skill-based courses/ qualifications as per the prescribed process. The School Boards to also ensure registration of their students/ learners on the ABC through the APAAR id. All skill based courses certificates by school boards would have a common branding of Skill India with Logo.

The other interested School Boards may also get the status of a recognised awarding body for the purpose of developing and implementing the NSQF aligned Qualification in their authorised jurisdictions to the students/ learners other than their regular students. For this purpose, a simplified process of Awarding Body recognition has been put in place by NCVET for recognition of School Boards as dual awarding bodies. If a student from vocational education wishes to enter the general education at the next higher NCrf level or vice-versa, the provisions of National Credit Framework (NCrf) would be applicable. In case of special cases not covered under the guidelines an expert academic committee of the School Board

concerned may identify any gaps between the skill and education and suggest suitable bridge courses for establishing the eligibility or for admitting the students to general education/ vocational education.

In view of the provision laid down in the SOPs, an SOP for Development, Alignment & Implementation of Skill Based Courses / Vocational Education, Training and Skilling based Qualifications in Higher Education & School Education have been further detailed out as follows :

V. SOP FOR DEVELOPMENT, ALIGNMENT AND IMPLEMENTATION OF SKILL BASED COURSES / VOCATIONAL EDUCATION, TRAINING AND SKILLING BASED QUALIFICATION IN HIGHER EDUCATION

NCrF enables integration of Vocational Education, Training and Skilling (VETS) into education to address the vision of NEP providing for holistic and multi-disciplinary education. Accordingly, a wide range of skill-based courses/ qualifications may be offered/integrated/ embedded into every stream of general education with pre-defined learning outcomes and assessment criteria. There are different types of NSQF aligned and approved Vocational Education, Training & Skilling programs which can be implemented across HEIs and schools. The NSQF aligned qualifications and courses are offered for conducting both, the Short-Term training (STT) and Long-Term training (LTT). The short-term trainings are trainings with a duration of less than one year or 1200 notional learning hours. The Long-Term trainings are trainings with duration equal to or more than one year or 1200 notional learning hours. All the Universities/ Higher Education Institutes (HEIs)/ School Boards are encouraged to integrate the vocational education training & skilling (VETS) based courses/ qualifications as per the guidelines. The mode of implementation of skill-based courses/qualifications must focus on enhanced curriculum and enhanced students/ learners

engagement. As provided under the NCrF, the learning courses/ qualifications should be flexible wherein learners have the flexibility to choose the course/program of their interest and choice enabling them to decide their career trajectory.

5.1. Integration of VETS in Higher Education

It has been observed that HEIs encounter certain challenges to implement the NSQF aligned & approved qualification as part of their UG/PG curriculum. These are listed below:

- a. The qualification selected by the HEIs for integration with the main-stream HEI curriculum may not be at the required NSQF levels of 4.5 for UG first year, 5 for UG second year, 5.5 for UG third year, 6 for UG fourth year/ PG first year, 6.5 for PG second year, and 7 for MTech 2nd year courses, resulting in the Learning Outcomes of such qualifications not matching the appropriate year in the UG/PG program.
- b. The duration of the ab-initio full skilling qualifications at level 4.5 to 8, which corresponds to the UG/PG NCrF levels, tend to be higher and may not fit into the curricular structure of UG/ PG programs appropriately unless these are offered as a full semester internship or training programs.
- c. The NSQF qualifications are normally job market based courses/ qualifications leading to a job role. Therefore, prior experience is often a mandatory requirement under the NSQF ladder. However, while integrating such courses/ qualifications into the higher education such requirement of prior experience may not be possible to be met. Moreover, the certifications for such courses/ qualifications are done in the form of a job role which might be misleading.

Keeping in view of the challenges, the Skill based courses/ qualifications can be implemented in the Higher Education in different modes. As per the provisions in the NCrF, up to 50 percent of the total

credit requirements of a UG/ PG program can be fulfilled by earning credits from the Skill based courses/ qualifications of appropriate NCeF levels (4.5 to 8). As per the SOP for operationalization of NCeF in Higher Education, such skill-based courses/ qualifications may be implemented in different ways by the HEIs for their students as given below :

Model 1: Skill based courses/ qualifications are integrated as part of the UG/ PG curriculum: The skill-based courses/ qualifications are offered as part of the curricular structure in higher education.

- A. HEIs may offer such skill-based NHEQF courses/ qualifications developed by them with the approval of their highest Authorised/Academic Body. Once integrated in the curriculum with the approval of the highest academic body of HEI, any skill based course/qualification is NHEQF aligned course.
- B. HEIs may offer any NSQF aligned and approved skill-based courses/ qualifications including NOS or MC with the approval of their highest Authorised/Academic Body. Even if a NSQF aligned and approved qualification/ NOS or MC are picked up by the HEI concerned for such integration, no approval of NCVET will be required and the certification shall also be done by the HE institution concerned subject to proper assessment for such courses/ qualifications/ NOS/ MC.

Where a qualification is being developed by a recognised Awarding Body (AB) of NCVET for integration in HEIs and is brought for NSQF alignment and approval, the following shall be applicable and ensured by the developing A B :

The integration will be as per the curricular design and structure of the HEI course/ program. A NOS/MC/Qualifications/ course being designed for integration shall be in the nature of a course subject name or a skill competency and doesn't have to be with the nomenclature of a job-role which could mislead the students or the employers. However, if a student undertakes the full NSQF aligned and

approved course/ qualification with the prescribed number of hours as a 5 to 7 months project or as internship, even as a job role based certification could be issued to such student along with the credits which he could use as part of the UG/ PG program. Thus, the NSQF aligned and approved qualifications designed for integration with UG/PG programs, may span across at least one semester of study in the form of Internship Program/ Project. These qualifications/ courses must align with the overall curriculum design of the UG or PG course and be approved by the body of the higher education institution authorised by the regulator concerned. The entry requirements for such NSQF qualifications may not require any prior work experience thereby catering to the 'pursuing education' category as mentioned in NSQF parameters. The Qualifications/ NOS/ MC shall be of appropriate level (Levels 4.5 to level 6 for a UG student and levels 6 to 7 in case of PG) depending on the field.

Model 2 : Skill-based courses/ qualifications offered as an additional course/ qualification for regular enrolled students of HEIs: Such courses may not be integrated within the curriculum of UG/ PG program but are offered as optional/ additional courses, with additional credits and certifications for the regular students enrolled in UG/PG programs.

There could be two scenarios in such cases : (a). Such qualifications/ courses could be NHEQF aligned-certification for such courses is to be done by the HEI concerned as per the NHEQF norms of staffing, infrastructure, nomenclature, guidelines/ regulations as may be applicable etc. (b). Such qualifications/ courses could also be NSQF aligned. In this case also no approval of the NCVET will be necessary for offering such NSQF courses/ qualifications as an additional course/ qualification for regular enrolled students of HEIs. However, the following shall be applicable : i. In case the HEI concerned is not a recognised AB of NCVET and directly implements the Qualification - no NCVET certificate will be given. However, to ensure the quality standards the related guidelines of NCVET with regards to the training

standards, infrastructure including the requirement of labs and workshops, qualifications of trainers and instructors' delivery of the course with the practical and proper assessment of the learning outcomes will be followed by the HEI concerned. ii. In case, the HEI concerned is a recognised AB of NCVET or the qualification is offered through a recognised AB of NCVET, NCVET certificate can be issued, and the qualifications offered could be of any level. iii. The nomenclature of the qualifications/ NOS/ MC offered as standalone course, will be in the nature of a course subject name or a skill competency and doesn't have to be with the nomenclature of a job-role. However, it may be shown to be a job role if it fulfils all the requirements of an NSQF aligned and approved course/ qualifications including the entry qualifications, notional hours, previous experience or OJT, etc.

Model 3: Skill-based courses/ qualifications offered as additional course/ qualification, for students and learners other than those enrolled for UG/PG course in the HEI, i.e. from the open market: For this category of skilling the following shall apply:

HEIs would need to seek the recognition as an Awarding body (AB) from NCVET or implement the skill qualifications through NCVET recognised ABs. It may be mentioned that a very simplified process for recognition as awarding body has already been approved by NCVET for the higher education institutions and school boards. They may offer NSQF aligned and approved skill based courses/qualifications developed by them and got approved by National Skills Qualification Committee (NSQC). Alternatively, the HEI concerned may adopt the qualifications from other recognised Awarding Bodies of NCVET and conduct the training by following the detailed process and methodology provided in the SOP for Operationalisation of NCrf in Vocational Education, Training & Skilling. A national level NCVET skill competency certificate may be issued. NSQF aligned courses of any level can be offered subject to their adoption of such courses/

qualifications. Also, to ensure the quality standards the related guidelines of NCVET with regards to the training standards, infrastructure including the requirement of labs and workshops, qualifications of trainers and instructors delivery of the course with the practical and proper assessment of the learning outcomes will be followed by the HEI concerned. Registration of the institution and the students/ learners for the APAAR, in the Academic Bank of Credits (ABC) and on the Skill India Digital Hub (SIDH) shall will be mandatory. Even if the HEI is not a recognised Awarding body (AB) of NCVET, the HEI may offer its own NHEQF aligned skill-based courses which are duly approved by its highest awarding body to the students and learners other than those enrolled for UG/PG course in the HEI, i.e. from the open market. In such cases the HEI certification may be issued with credits. However, in such cases the NCVET approved certificate shall not be issued by the HEI.

The ABs developing qualifications/ NOS to be offered as standalone courses as in Model 2 and Model 3 shall keep the above requirements in mind.

5.2. Integration of VETS in School Education

The same principles shall apply to skill courses offered in schools by the School Boards concerned.

VI. CONCLUSION

It has been observed that, all the Universities / Higher Educational Institutions (HEIs) / School Boards are encouraged to integrate Vocational Education Training and Skilling (VETS) based courses / qualifications as per the SOP and Guidelines suggested. The National Credit Framework (NCrf) also emphasizes on integration of VETS into Higher Education as well as School Education to address the vision of NEP providing for holistic and multi-disciplinary education. Accordingly, the UGC has published Standard Operating Procedures (SOPs) for Operationalization of National Credit Framework

(NCrF) in Higher Education, Vocational Education Training and Skilling (VETS) and School Education document during August, 2024. The mode of implementation of skill-based courses / qualifications, as per the UGC guidelines, must focus on enhanced curriculum and enhanced students / learners engagement. The SOP guidelines also emphasizes that, as provided under the NCrF, the learning courses / qualifications must be flexible, so that the learners will have the flexibility to choose their course / program based on their interest and choice which will enable them to decide their career path. The present article will introduce the educational practitioners with regard to the major provisions of the NEP and NCrF with special reference to integration of VETS into Education and Higher Education.

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