डॉक्टर हरीसिंह गौर विश्वविद्यालय
DR. HARISINGH GOUR VISHWAVIDYALAYA
(A Central University I A+ Accredited by NAAC)
कार्यालय निदेशक शैक्षणिक गतिविधियाँ
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SAGAR–470003 (M.P.) INDIA

No./DoAA/2026/ 1623 12 **November, 2026**

Important

To,

All Deans of Schools & Head of the Departments,
Dr. Harisingh Gour Vishwavidyalaya,
Sagar (M.P.)

Sub: Action taken on the Minutes of the NEP Implementation Committee (NIC).

Ref.: Minutes of the meeting of the NEP Implementation Committee (NIC) held on 15.10.2026.

Madam/Sir,

With reference to the aforementioned subject, a meeting of the NEP Implementation Committee was convened on 15th October, 2026, during which the Committee deliberated extensively on various aspects of the implementation of the National Education Policy (NEP) 2020 and made its recommendations accordingly.

In this regard, the duly approved minutes of the meeting, along with its annexures, are enclosed herewith for your kind perusal and further necessary action.

Enclosure: As above.

By order,

12/11/2026

Director
(Academic Affairs)

Copy to:-

1. All Members of the Committee and Special Invitees.
2. All Academic and Administrative Deans/Directors.
3. Controller of Examinations (I/c).
4. I/c Officer I.T. Cell - *with a request to upload the same on the University Website.*
5. PS to VC - for the information of Hon'ble Vice Chancellor.
6. PA to Registrar.
7. Guard file.

Joint Registrar
(Academic Affairs)

MINUTES OF THE MEETING OF THE NEP IMPLEMENTATION COMMITTEE (NIC)

- **Date** : 15th October 2026
- **Time** : 04:00 PM
- **Venue** : Gour Samiti Kaksha, New Administrative Building
- **Authority Reference** : Office Order No. /R/DoAA/2026/1072, Dated 09.03.2026

ATTENDANCE

Members Present:

1. **Prof. Manvinder Singh Pahwa**, DoAA — *Chairman*
2. **Prof. U. K. Patil**, Director, PRG — *Member*
3. **Prof. D. K. Nema**, DSW — *Member*
4. **Prof. Shweta Yadav**, DoRD — *Member*
5. **Prof. N. P. Singh**, DCDC — *Member*
6. **Prof. Naveen Kango,** Head, Dept. of Microbiology — *Member*
7. **Dr. Balvant Singh Bhadoriya,** Head, Dept. of F.A. & P.A. — *Member*
8. **Dr. Satheesh C.**, Asst. Prof., Dept. of General & Applied Geography — *Member*
9. **Dr. Vinod Kumar**, Asst. Prof., Dept. of Law — *Member*
10. **Sh. Santosh Sohgaura**, Joint Registrar, Academic Affairs — *Member Secretary*

Special Invitees:

1. **Dr. Abhishek Bansal**, Co-coordinator, Admission Cell
2. **Sh. Sachin Singh Gautam**, Networking Administrator, I.T. Cell

DISCUSSIONS AND RESOLUTIONS

The objective of the meeting of the NIC was to discuss and resolve the various functions of NEP 2020 and difficulties faced by the departments and students while its implementation. During the meeting, the said matter was discussed at length and following was resolved as under:

1. The Committee resolved to circulate the following guidelines and regulatory frameworks to all Academic and Administrative Deans and Heads of Departments for necessary compliance and effective implementation in the Curriculum:

    - Curriculum and Credit Framework for Undergraduate Programmes
    - National Credit Framework (NCrF)
    - National Higher Education Qualifications Framework (NHEQF)
    - UGC (Minimum Standards of Instruction for the Grant of Undergraduate Degree and Postgraduate Degree) Regulations, 2025
    - Minutes of the Meeting held on 23rd July, 2025 of the Committee constituted vide Office Order vide Office Order No. DoAA/2025/740 dated 30th January, 2025 regarding UG Honours and UG Honours with Research Programmes as per NCrF.

***Note:** The curriculum structure for Undergraduate Programmes, as per above guidelines is attached herewith.*

(Action: All Deans of Schools & HoDs)

2. The Committee resolved to align the nomenclature of Value Enhancement Courses (VECs), which is already offered by the Vishwavidyalaya under the National Education Policy (NEP) 2020 since the academic session 2022–23, as Value Added Courses (VACs), in accordance with the UGC's Curriculum and Credit Framework for Undergraduate Programme, 2022 from the next academic session i.e. 2027-28.

(Action: All Deans of Schools, HoDs & DoAA)

3. In view of the operational challenges encountered in the implementation of the Four-Year Undergraduate Programme (FYUP) and One-Year Postgraduate Programmes, the Committee resolved to formulate and notify a clear and comprehensive Standard Operating Procedure (SoP)/guidelines including the Nomenclature to ensure their smooth and uniform implementation.

(Action: NEP Implementation Committee)

4. Regarding the implementation of the Internship and Apprenticeship Guidelines issued by the UGC, the Committee resolved to notify the guidelines to ensure their effective implementation.

(Action: All Deans of Schools & HoDs)

Prof. Manvinder Singh Pahwa ***(DoAA) (Chairman)***	**Prof. U. K. Pati** ***(Member)***	**Prof. D. K. Nema** ***(Member)***	**Prof. Shweta Yadav** ***(Member)***
Prof. Naveen Kango ***(Member)***	**Prof. N. P. Singh** ***(Member)***	**Dr. Balvant Singh Bhadoriya** ***(Member)***	**Dr. Satheesh C.** ***(Member)***
Dr. Vinod Kumar ***(Member)***	**Sh. Santosh Sohgaura** ***(Member Secretary)***	**Dr. Abhishek Bansal** ***(Special Invitee)***	**Sh. Sachin Singh Gautam** ***(Special Invitee)***

UGC GUIDELINES

FOR

HIGHER EDUCATIONAL INSTITUTIONS

TO OFFER

APPRENTICESHIP EMBEDDED DEGREE PROGRAMME

(AEDP)



UNIVERSITY GRANTS COMMISSION
BAHADUR SHAH ZAFAR MARG
NEW DELHI- 110002
(2025)

1. INTRODUCTION

The National Education Policy (NEP) was released by the Government of India on 29th July 2020. The policy lays emphasis on making education more holistic and effective by integrating general (academic) and vocational education while ensuring the vertical and horizontal mobility of students/learners between academic and vocational streams. The NEP has prioritized the creation of a learning environment that is more "experiential, holistic, integrated, inquiry-driven, discovery-oriented, learner-centred, discussion-based and flexible."

In accordance with the NEP 2020, UGC has framed a new student-centric "Curriculum and Credit Framework for Undergraduate Programmes" (CCFUP) incorporating a flexible choice-based credit system, multiple entry and exit options and a multidisciplinary approach.

Para 16.7 of the NEP makes apprenticeship as crucial to learning in higher educational institutions, as reproduced below:
".....Different models of vocational education and apprenticeships will also be experimented by higher education institutions.....".
Aligned with the NEP 2020 recommendations and the Sustainable Development Goals (SDGs), the UGC has undertaken various initiatives to enable youth to become more competent, employable and global citizens.

There is a need to bridge the gap between 'what is taught in the class' and 'what is required by industry'. The competencies required by the industry need to be embedded in the university curriculum so that the Education-Employability gap is bridged. Apprenticeship has a considerable role to play in bridging this gap.

World over, apprenticeship is considered the preferred and structured training for exposure to the real working environment. This combines work-based learning with theoretical knowledge of related disciplines. Through apprenticeship, students actively engage with the practical side of their learning.

The apprenticeship programmes in India are evolving to meet the dual objectives of fostering skilled manpower and reducing unemployment among the youth. These programmes are increasingly recognized as a vital component of the education system, contributing to a more dynamic workforce that can propel the nation's economic growth and development. The continued expansion and enhancement of such programmes will play a crucial role in India's strategy to effectively harness its demographic dividend.

2. DEFINITIONS: In these guidelines, unless the context otherwise requires-

a. **Academic Session:** means the duration of twelve months beginning either in 'January to February' or in 'July to August', as the case may be, of every calendar year.

b. **Act**: means the University Grants Commission Act, 1956 (3 of 1956).

c. **Apprenticeship Embedded Degree Programme (AEDP**): Programme enabling a student admitted to an undergraduate programme of the Higher Educational Institution, recognized as per the UGC Act, 1956, to pursue apprenticeship training as an integrated component of the degree programme in compliance with these guidelines.

d. **Apprenticeship Rules:** The Apprenticeship Rules, 2019 state that **1.** The employers having four or more workers shall only be eligible to engage apprentices and engagement of apprentices by establishment having thirty or more number of workers shall be

obligatory; **2.** The strength of workers shall be calculated on the basis of average strength in the preceding financial year; **3.** Within a financial year, each establishment shall engage apprentices in a band of 2.5 per cent. to 15 per cent. of the total strength of the establishment including contractual staff, subject to a minimum of 5 per cent. of the total to be reserved for fresher apprentices and skill certificate holder apprentices; **4.** In no month, number of apprentices should be less than 2 per cent of the total strength of the establishment and more than 18 per cent. of the total strength of the establishment subject to the condition that he shall fulfill apprentice months corresponding to minimum 2.5 per cent obligation in a financial year.

The above conditions are as per the Apprenticeship Rules 2019 and the provisions of Apprenticeship Rules, as amended from time to time shall be applicable.

e. **Apprenticeship Training**: Training in an industry or establishment under a contract of apprenticeship, which consists of a basic training component and on-the-job training (OJT)/practical training at the workplace. Further, as per the Apprentices Act of 1961, Apprenticeship training means a course of training in any industry or establishment undergone in pursuance of a contract of apprenticeship and under prescribed terms and conditions, which may be different for different categories of apprentices.

f. **BOAT (Board of Apprenticeship Training) & BOPT (Board of Practical Training)**: The Regional Boards of Apprenticeship/Practical Training set up by the Government of India at Chennai, Kanpur, Mumbai, and Kolkata as "Autonomous Bodies" to implement the national scheme of apprenticeship training in the respective regions.

g. **Commission**: means the University Grants Commission

established under the University Grants Commission Act, 1956 (3 of 1956).

h. **Establishment:** As per the Apprentices Act, 1961: **Clause 2(g)** states that "establishment" includes any place where any industry is carried on [and where an establishment consists of different departments or have branches, whether situated in the same place or at different places, all such departments or branches shall be treated as part of that establishment]; **Clause 2(h)** "establishment in private sector" means an establishment which is not an establishment in public sector; **Clause 2(i)** "establishment in public sector" means an establishment owned, controlled or managed by **1.** the Government or a department of the Government; **2.** a Government company as defined in section 617 of the Companies Act, 1956 (1 of 1956); **3.** a Corporation (including a co-operative society) established by or under a Central, Provincial or State Act, which is owned, controlled or managed by the Government; **4.** a local Authority.

   The provisions of the Apprentices Act, 1961, as amended from time to time, shall be applicable.

i. **Higher Educational Institution (HEI**): means (i) Universities included under section 2(f) of the UGC Act, 1956 (ii) Deemed to be Universities under section 3 of the UGC Act, 1956 (iii) Institutions funded by Central or State Governments and empowered to award degrees.

j. **Industry:** As per the Apprentices Act, 1961: **Clause 2(k)** states that "industry" means any industry or business in which any trade, occupation or subject field in engineering or non-engineering or technology or any vocational course may be specified as a designated trade or optional trade or both. The amendments in the Apprentices Act, if any, shall be applicable.

k. **National Credit Framework (NCrF)**: Framework, notified by UGC, encompassing elementary, school, higher and vocational education & training, integrating learning on all dimensions, i.e. academics, vocational skills and experiential learning, including relevant experience and proficiency/ professional levels acquired.

l. **National Apprenticeship Training Scheme (NATS)**: The National Apprenticeship Training Scheme is one of the flagship programmes of the Government of India for Skilling Indian Youth in Trade disciplines. The National Apprenticeship Training Scheme under the provisions of the Apprentices Act, 1961 offers Graduate and Diploma students practical, hands-on training-based skilling opportunities with a duration ranging from 6 months to 1 year.

m. **National Apprenticeship Promotion Scheme (NAPS)**: The scheme of the Government of India aimed at promoting apprenticeship training in the country by providing partial stipend support to the apprentices, undertaking capacity building of the apprenticeship ecosystem and providing advocacy assistance to stakeholders.

3. OBJECTIVES

i. To enhance the employability of students pursuing Undergraduate level degree programmes.
ii. To focus on outcome-based learning in all degree programmes to achieve graduate attributes and desired proficiency levels.
iii. To promote active linkage between higher educational institutions and industries/establishments.
iv. To bridge the skill gap in the industries by effectively implementing AEDP in partnership with higher educational institutions and/or Board of Apprenticeship Training (BOAT)/ Board of Practical Training (BOPT).

4. TRIPARTITE AGREEMENT

i. To enter a Degree Apprenticeship engagement, it shall be mandatory to have a tripartite agreement between the recognized HEI, industry/establishment and the student (apprentice/learner).

ii. The agreement shall clearly specify the roles and responsibilities of all three parties.

5. SCOPE / APPLICABILITY

i. The Degree Apprenticeship Guidelines are guided by the fundamental tenets of Apprenticeship as enshrined in the Apprentices Act, 1961, i.e., the training is managed through a contract of Apprenticeship, payment of minimum prescribed stipend to the Apprentice and adherence to the provisions of the Act.

ii. All Undergraduate (UG) Degree programmes in the disciplines offered by the HEIs, as specified by the UGC under section 22 (3) of the UGC Act, 1956, are eligible to embed apprenticeship into the degree programme, subject to the eligibility as per Point 6 of these Guidelines. Section 22 (3) of the UGC Act, 1956 states, "…"*degree" means any such degree as may, with the previous approval of the Central Government, be specified in this behalf by the Commission by notification in the official Gazette*."

iii. The AEDP programme falling under the ambit of a statutory or regulatory body/council other than UGC shall be offered with the prior approval of the concerned statutory or regulatory body/council and in compliance with its guidelines.

iv. An Apprenticeship Embedded Degree Programme shall be treated at par with the regular UG degree programmes specified by the UGC under section 22 (3) of the UGC Act, 1956, for all purposes, including further education and recruitment/employment.

v. Students graduating from the Apprenticeship Embedded Degree

Programme shall be eligible to take admission in the Master's/Ph.D. programme.

6. ELIGIBILITY OF HEIs:

Any Higher Educational Institution may offer an AEDP Programme which fulfils the following conditions:

Having ranked in the University category of the National Institutional Ranking Framework (NIRF) in the latest NIRF rankings

OR

Having a valid grade/score by the National Assessment and Accreditation Council (NAAC)

OR

Having a valid basic accreditation by the National Assessment and Accreditation Council (NAAC) and complying with the criteria specified by the Commission from time to time.

7. IMPLEMENTATION

i. The HEIs shall offer the AEDP in compliance with these guidelines.
ii. The students' apprenticeship training shall be undertaken at the workplace in the identified discipline/trade.
iii. The HEIs shall have a formal agreement with discipline-specific industry/establishment to provide apprenticeship under AEDP. In case multiple industry/establishments are involved, then, separate agreements are required to be made.
iv. The HEIs may plan the number of seats for apprenticeship based on the facilities and infrastructure available and the formal agreement with the industry/establishment.
v. The AEDP shall use standard degree nomenclature as notified by UGC. The mark sheets/transcripts should mention the

credits earned through apprenticeship training and the industry/establishment where the apprenticeship training was undertaken.

vi. The HEIs may convert their already running programmes into the AEDP and take admission accordingly.

vii. Admission to AEDP shall be same as admission to regular UG programmes.

viii. Based on the National Credit Framework (NCrF), provision for Multiple Entry-Multiple Exit should be enabled by the HEIs.

ix. Embedding apprenticeship will offer a kind of traineeship which shall not be undertaken within the university academic establishment but at the premises of the workplace to get work-based learning in an identified discipline/trade.

x. The HEIs shall have full flexibility to schedule apprenticeships within the programme duration, as per the best fit of the industry/establishment and itself. However, the apprenticeship shall not be undertaken in the first semester of the AEDP, whereas the last semester of the AEDP shall be dedicated to apprenticeship.

xi. The spells of apprenticeship shall be scheduled either continuously or at intervals depending upon the requirement and practicality of the discipline concerned. The spell should be of at least one complete semester at a stretch.

xii. AEDP Learning Outcomes/Graduate Attributes for both academic and apprenticeship components shall be defined with the desired attainment levels. The HEIs shall design an appropriate curriculum in consultation with the industry/establishment and shall get the same approved by its statutory authorities before the launch of the AEDP.

xiii. Such curriculum/ courses shall be aligned to the National Higher Education Qualifications Framework (NHEQF)/ National Skill Qualification Framework (NSQF).

xiv. The area of the apprenticeship programme shall be aligned

with the domain of the degree programme.

xv. The HEIs shall also ensure an appropriate assessment strategy for evaluating the defined learning outcomes of the apprenticeship programme, ensuring adherence with the broad learning outcomes as per the National Higher Education Qualifications Framework (NHEQF)/NSQF, as the case may be.

xvi. The Apprentice shall ensure that no simultaneous contracts are signed with different industries/establishments.

xvii. HEIs interested in implementing the AEDP may seek technical assistance from the Board of Apprenticeship/Practical Training (BoAT/BoPT)/Sector Skills Councils/National Council of Vocational Education and Training (NCVET) recognized Awarding Bodies on mutually agreed terms.

Note: AEDP programmes being run by the HEIs prior to the notification of these guidelines shall be governed by UGC guidelines for HEIs to offer 'Apprenticeship/Internship Embedded Degree Programme', notified in 2020, till the passing out of the already admitted batches in these AEDP programmes. However, after the notification of these guidelines, any fresh admissions in these programmes shall be as per these guidelines.

8. AEDP DURATION

Sr. No.	Programme	Permissible Apprenticeship Embedding	
		Minimum	Maximum
1.	UG – 3 years	1 Semester	3 Semesters
2.	UG - 4 years	2 Semesters	4 Semesters

Note:

1. The total duration of the programme shall not be altered.
2. The apprenticeship spell shall be for at least one whole semester.

3. The permissible apprenticeship embedded duration shall only be for the apprenticeship training.

9. CREDIT MECHANISM

i. For apprenticeship, the credits would be calculated in terms of duration instead of notional hours. A three-months apprenticeship programme will earn 10 credits.

ii. The credit assignment to an apprenticeship embedded qualification is subject to the assessment as per the pre-defined learning outcomes/Graduate Attributes.

iii. The actual hours spent in the industry shall be in accordance with the provisions of the Apprenticeship Rules as amended from time to time, whereas for the calculation of credits, the mechanism at point (i) above shall be applicable.

10. STIPEND

The HEI shall have an option of offering AEDP either through registration on the NATS portal or directly in partnership with the industry/establishment. Based on the option, the stipend will be paid as per the relevant rules/guidelines.

10.1 Offering of the AEDP directly in partnership with the industry/establishment: The stipend will be paid by the industry/establishment as per the Apprentices Act, 1961 & Apprenticeship Rules, 1992; as amended from time to time.

10.2 Offering of the AEDP through registration on the NATS portal: Stipend will be paid by the government as applicable and as per the agreement signed for the apprenticeship purpose with the BOAT/BOPT.

11. PREPARATION OF APPRENTICESHIP PLAN

An apprenticeship plan shall be developed by the HEIs in collaboration with the industry/establishment. The BOATs/BOPT may also be involved in the development of the plan for onboarding on the National Apprenticeship Training Scheme (NATS) portal. The HEIs may also use

the services of industry/establishment associations/Sector Skill Councils (SSCs)/NCVET Awarding bodies to develop and manage the apprenticeship plan. The apprenticeship plan shall broadly incorporate the following:

a. Work/Training description in detail.
b. Duration of the apprenticeship training: clearly defined in months as per the trade requirements.
c. Training Syllabus: Comprehensive curriculum covering Academic component/theoretical aspects and practical/Apprenticeship details/schedule.
d. Facilities/Infrastructure/Faculty: Adequate facilities for on-the-job and classroom training. Also, the availability of the faculty/experts including the Professor of Practice, as applicable, ensuring adequacy & appropriateness.
e. Credit Mechanism as per the NCrF.
f. Detailed action plan including minimum attendance required.
g. Expected learning outcomes/ graduate attributes.
h. Assessment/Evaluation Methodology: Assessment for the apprenticeship component shall be carried out in a semester pattern.
i. Mechanism to monitor the progress of the apprentice during the apprenticeship period with explicitly/clearly defined processes with timelines.

12. ASSESSMENT METHODOLOGY OF THE APPRENTICESHIP COMPONENT OF THE AEDP

The assessment shall be aimed at assessing the skills/ proficiency of the Apprentice in a work setting as part of the apprenticeship component.

The assessment of apprentices shall be done, provided the students concerned have maintained a satisfactory level of attendance during the apprenticeship period. The HEI concerned shall prescribe the minimum attendance of the apprenticeship in the

industry/establishment. The HEI shall have the flexibility to structure the assessment of the apprenticeship component in partnership with the industry/establishment. The training of the students/apprentices shall be evaluated and the weightage of various components of the assessment shall be mutually decided between the HEI and the industry/establishment as per the following:

A. Evaluation by industry/establishment (min. 30% - max. 40% weightage).

B. Evaluation by faculty mentor based on the on-site visit(s) (min. 30% - max. 40% weightage).

C. Evaluation through seminar presentation and Viva-Voce at the HEI (remaining weightage: min. 20% – max. 40%).

Note: For the seminar presentation and Vice-Voce, industry experts may be invited by the HEI.

A. Evaluation by industry/establishment (Indicative but not limited to):

The industry/establishment shall assess the candidates based on the following parameters – attendance, discipline and punctuality, familiarity with learning methodologies, skills, application of skills, comprehension and observation, professional ethics, safety and environmental consciousness, communication skills, supervisory skills and general conduct during the period.

B. Evaluation by faculty mentor (Indicative but not limited to):

The HEI shall depute one faculty member to mentor and evaluate at least 20-30 students undertaking apprenticeship training. Such mentors will monitor, guide, and counsel the students as and when required. The mentorship mechanism should be detailed in the apprenticeship plan.

C. Evaluation through seminar presentation and viva-voce at

the HEI (Indicative but not limited to):

The student will submit a project report and give a seminar/presentation based on his training report before an expert committee to be constituted by the concerned department as per the norms of the HEI. The evaluation shall be based on the following criteria:

- Quality of content/project report presented
- Effectiveness of presentation
- Depth of knowledge and skills
- The delivery of the project outcome, wherever applicable
- Apprenticeship Report
- Attendance records, daily diary and departmental reports

Note:

1. The marks provided by the industry/establishment and the institute shall be averaged to decide the student's final grade.
2. The overall credits assignment and the issue of certificates for the apprenticeship qualification shall be the responsibility of the HEI concerned in collaboration with the industry/ establishment.

13. ROLE OF STAKEHOLDERS IN THE IMPLEMENTATION OF THE AEDP

A. BOATs/ BOPT

a. To be the focal point in driving the apprenticeship as per the tripartite contract, as applicable.
b. To enable ties between HEI and industry/establishment.
c. To ensure adherence to the guidelines related to stipend, training and other mandated compliances, as applicable.

B. HEI

a. The academic institution shall take necessary approval from its statutory bodies, such as the Academic Council and Executive Council/Senate, for offering AEDP.

b. Signing of MoU/Agreement/Letter of Confirmation with the industry/establishment.
c. Preparation of an Apprenticeship Plan in collaboration with the industry/establishment.
d. Creating the curriculum along with industry/establishment.
e. Implementation of theoretical/classroom learning components of the AEDP.
f. Ensuring the availability of relevant infrastructure and faculty with requisite industry/establishment experience, including Professor of Practice, to deliver AEDP.
g. Assessment.
h. Awarding the AEDP qualification.
i. Credits uploading on the ABC portal.
j. Do all the necessary activities required to improve the quality of AEDP.
k. In the event of a default by the Industry, the HEI should consider either moving the students to the conventional programme or to an alternate industry, as per the choice of the students.

C. INDUSTRY/ ESTABLISHMENT

a. Signing of MoU/Agreement/Letter of Confirmation with the HEI(s).
b. Preparation of an Apprenticeship Plan in collaboration with the HEI.
c. Onboarding the student trainee.
d. Co-creating curriculum/synopsis/written plan of apprenticeship along with the HEI(s).
e. Delivery and assessment of apprenticeship learning.
f. Adherence to the guidelines under the AEDP related to the stipend, training and overall outcomes intended for the programme.

D. STUDENT/LEARNER/APPRENTICE

a. Submit the training report in the prescribed format.
b. To complete apprenticeship and academic learning as per the curriculum.
c. To take up the required assessment.
d. To maintain decorum and discipline during the training as per industry/establishment norms during the apprenticeship period.
e. The apprenticeship contract shall terminate at the expiry of the apprenticeship training period.

14. POST TRAINING TRACKING

HEIs are expected to track the outcomes of the pass-outs from such programmes for a period of at least 1 year after the completion of the programme to assess the employment and education pathways pursued by such candidates and contribute to the further development of AEDP.

15. ROLE OF STAKEHOLDERS UNDER THE TRIPARTITE CONTRACT

Responsibilities of the Industry/Establishment

i. To comply with the provisions related to health and safety, compensation for injury and hours of work, leave and holidays, as per the provisions of the 'Apprentices Act, 1961' and 'Apprenticeship Rules,1992', as amended from time to time.
ii. To provide the Apprentice with the training as per the approved programme in accordance with the contract and within the overall provisions of the Act.
iii. To pay stipend as prescribed by the Government, usually on completion of every month through bank transfer, at the latest by the 10th of the following month.
iv. To maintain records of the progress of training and assessments undertaken by each apprentice undergoing apprenticeship

training in his establishment in such form as required under the course curriculum and as may be prescribed under the Act.

v. To comply with provisions related to Health and Safety: The provisions of Chapters III, IV and V of the Factories Act, 1948 shall apply in relation to the health, safety and welfare of the apprentices as if they were workers within the meaning of that Act and when any apprentices are undergoing training in a mine, that provisions of Chapter V of the Mines Act, 1952, shall apply in relation to the health and safety of the apprentices as if they were persons employed in the mine. Similar provisions should also be applicable for apprentices working in any such hazardous industry/establishment which may have health, safety and welfare guidelines for employees.

vi. To comply with the provisions related to the Hours of Work, Leave and Holidays: The weekly and daily hours of work of an Apprentice while undergoing practical training in a workplace shall be as determined by the industry/establishment subject to compliance with the training duration, as applicable.

vii. To provide Compensation for Injury: If personal injury is caused to an Apprentice by accident arising out of and during his training as an Apprentice, his industry/establishment shall be liable to pay compensation which shall be determined and paid, so far as may be, in accordance with the provisions of the Employees' Compensation Act, 1923, subject to the modifications specified in the Schedule.

viii. To permit apprentices to attend scheduled academic sessions in between the training period at the HEI campus.

Responsibilities of Apprentices

Conduct and Discipline: The Apprentice shall be governed by the rules and terms & conditions/regulations (applicable to apprentices) in the establishment in which the Apprentice is undergoing training.

Responsibilities of the HEI

i. To deliver the programme as per the approved curriculum, including the monitoring/management of the apprenticeship component undertaken in partnership with the industry/establishment.

ii. To have the flexibility to structure the assessment of the apprenticeship component in partnership with the industry/establishment in terms of one final end-term assessment or periodic assessments at the enterprise through industry/establishment/HEI assessors.

16. TERRITORIAL JURISDICTION OF HIGHER EDUCATIONAL INSTITUTIONS FOR OFFERING AEDP

I. A HEI established or incorporated by or under a Central Act shall offer AEDP programmes as per the territorial jurisdiction allotted to it under its Act.

II. A HEI established or incorporated by or under a State Act (Public and Private) shall offer AEDP programmes only within the territorial jurisdiction allotted to it under its Act and not beyond the territory of the state of its location.

III. An institution Deemed to be a University established as per Section 3 of the UGC Act, 1956 shall offer AEDP Programmes within its headquarters or from those off campuses that are approved by the Government of India through notification published in the Official Gazette.

IV. No HEI shall offer AEDP programmes or other related activities through franchising arrangements.

17. CONSEQUENCES OF THE VIOLATIONS OF THE GUIDELINES

If any HEI violates the provisions of these guidelines, the Commission shall constitute an enquiry committee to look into the violations. If the

violations are established by the enquiry committee set up by the Commission, the HEI shall be:—

a) Debarred from participating in UGC schemes.
b) Debarred from offering degree programmes.
c) Debarred from offering ODL and online mode programmes.
d) Removed from the list of HEIs maintained under Sections 2(f) and 12B of UGC Act 1956.

The HEI shall be subjected to one or more of the above actions. Further, UGC may take additional punitive actions as per the decision of the Commission on a case-to-case basis.

18. INTERPRETATION

In the event of any conflict or inconsistency with respect to these guidelines, the interpretation given by the Commission shall be final and binding.

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Minutes of the Meeting of the Committee

The 2nd Meeting of the Committee constituted vide Office Order No. DoAA/2024/648 dated 02 August, 2024 was held on 31 December, 2024 at 04:00 PM in the Office of Director, Academic Affairs.

The prime objective of the committee was to revisit the Curriculum Framework vide University notification DoAA/2022/159 dated 20 July 2022, to implement the Four Year Undergraduate Programme (FYUP) under UGC Curriculum and Credit Framework for Undergraduate Programmes and to prepare structure for 7th and 8th Semester.

During the meeting, the said matter was discussed at length and following was resolved as under:

a) After the completion of 6th Semester of UG Programme under FYUP-2022, students will opt one of the subject/discipline from among the subjects studied during the programme.
b) The requisite Curriculum and Credit Framework of 7th and 8th Semester will be designed and developed in the following manner :

Sem.	Nature of the Course	Course Code	Credits
SEM -VII	Discipline Specific : Major-1	SUB- DSM-711	06
	Discipline Specific: Major-2	SUB- DSM-712	06
	Multi-Disciplinary : Major-3 (Discipline Specific Research Methodology)	SUB- MDM-711	06
	Internship/Experiential Learning/Field Work/ Minor Project	SUB-SEC-711	02
			20
SEM -VIII	Discipline Specific : Major-1	SUB- DSM-811	06
	Discipline Specific: Major-2	SUB- DSM-812	06
	Discipline Specific Dissertation	SUB-DSM-813	12
			24
		Total	**44**

Prof. A.D. Sharma (Chairman)	Prof. Naveen Kango (Member)	Prof. Anil Kumar jain (Member)	Dr. Abhishek Bansal (Member)
Dr. Keshav Tekam (Member)	Dr. Sanjay Sharma (Member)	Santosh Sohgaura (Member)	

Minutes of the Meeting of the Committee

The Meeting of the Committee constituted vide Office Order No. DoAA/2025/740 dated 30th January, 2025 was held on 23 July, 2025 at 12:30 PM in the Office of Director, Academic Affairs.

Members Present:

1. Prof. Anil Kumar Jain, Dean, SES & Director, IQAC -*Chairman*
2. Prof. Naveen Kango, Director, Academic Affairs -*Member*
3. Prof. Keshav Tekam, Head, Dept. of Economics -*Member*
4. Dr. Abhishek Bansal, Head, Dept. of Computer Science & Applications -*Member*
5. Sh. Santosh Sohgaura, Joint Registrar, Academic Affairs -*Member*
6. Dr. Sanjay Sharma, Dept. of Lifelong Education -*Member*
7. Dr. Surendra P. Gadewar, Controller of Examinations (I/c) -*Special Invitee*
8. Dr. Arvind Mishra, STA, Exam Section -*Special Invitee*

Agenda:1 Alignment of NCrF Credit Levels in the Existing Curriculum Framework-2022 of the Vishwavidyalaya.

The matter was presented by Dr. Arvind Mishra (Exam Section), regarding mapping of Credit Levels on the SAMARTH Portal as per NCrF guidelines as directed by Ministry of Education vide its letter no. D.O. No.16-5/2020-TEL-Part(4) Dated 10.06.2025 (Flag-'A').

It is to inform that the Vishwavidyalaya has adopted the National Credit Framework (NCrF) 2023 in the 54th Emergent meeting of the Academic Programme Committee. The assignment of Credit Levels will be from level 4.5 to level 8, as per the NCrF Table No. 3 Page No. 44.

Resulution:

The Committee after due deliberations resolved to identify the Credit Levels as per NCrF guidelines (2023).

Agenda:2 Mechanism of Students' progression to Fourth Year (VII & VIII Semester) in Four Year Undergraduate Programme under NEP-2020.

The Vishwavidyalaya has implemented the NEP-2020 from the Academic Session 2022-23 and in academic session 2025-26 students are entering in the Fourth Year of Undergraduate Programme under FYUP. The Curriculum Framework for Fourth Year (VII & VIII Semester) under FYUP was developed by the duly constituted Committee in its meeting held on 31.12.2024 and the same was approved by the Statutory Bodies of the Vishwavidyalaya (Flag-'B'). All the Departments have prepared the syllabi as per the said Curriculum Framework after due approval of respective Board of Studies (Bos). A number of students have shown interest in continuing their degree for the Fourth Year.
A SoP may be devised in order to facilitate smooth running of FYUP and Students' progression to Fourth Year.

Resulution:

The Committee after due deliberations resolved to devise following SoP with respect to facilitate smooth progression of the Students' to 4th Year under FYUP:

23.7.25 23/7/25

i. Semester Registration and Subject Selection for 4th Year will take place through the SAMARTH Portal. Student details will be accessible on the portal to the Deans of Schools.

ii. Dean in consultation with HoDs will prepare a time-table as per the approved syllabus and arrange for classes/ dissertation.

iii. Students on Exit after VI Semester (3rd Year) will be awarded Undergraduate Degree (B.A./B.Sc./B.Com/B.C.A.) in the relevant Discipline/Subject as per the Curriculum Framework-2022 of the Vishwavidyalaya.

iv. Students on completion of VIII Semester (4th Year) will be awarded **Undergraduate Degree (B.A./B.Sc./B.Com/B.C.A.) with Research** in the relevant Discipline/Subject as per the Curriculum Framework-2022 of the Vishwavidyalaya.

v. According to the above stipulations, the Exam Section will make necessary changes in the Marksheet/Degree provided under NEP-2020 FYUP.

Agenda:3 To introduce UG (Honours and Honours with Research) as per NCrF.

Resulution:

The Committee thoroughly visited the NCrF for FYUP **Undergraduate (Honors and Honors with Research)** and recommended that proposals for UG Honors/Honors with Research as per the NCrF may be invited. The details of Credit requirement for the same as per UGC guidelines are enclosed below (Curriculum and Credit Framework for Undergraduate Programmes Table No. 2 Page 19). After due approval these Courses may be introduced from the next session.

Table 2: Minimum Credit Requirements to Award Degree under Each Category

Sl.No.	Broad Category of Courses	Minimum Credit Requirement	
		3-Year UG	4-Year UG
1	Major (Core)	60	80
2	Minor Stream	24	32
3	Multidisciplinary	9	9
4	Ability Enhancement Courses (AEC)	8	8
5	Skill Enhancement Courses (SEC)	9	9
6	Value Added Courses common for all UG	06 - 08	06 - 08
7	Summer Internship	02 - 04	02 - 04
8	Research Project / Dissertation	-	12
	Total	120	160

* Honours students not undertaking research will do 3 courses for 12 credits *in lieu* of research project/dissertation.

The meeting ended with thanks to the Chair.

Prof. Anil Kumar Jain	Prof. Naveen Kango	Prof. Keshav Tekam	Dr. Abhishek Bansal
(Chairman)	*(Member)*	*(Member)*	*(Member)*
Santosh Sohgaura	Dr. Sanjay Sharma	Dr. Surendra P. Gadewar	Dr. Arvind Mishra
(Member)	*(Member)*	*(Special Invitee)*	*(Special Invitee)*



NATIONAL CREDIT FRAMEWORK

(NCrF)

The Report of the High-Level Committee
Comprising Members
from
UGC, AICTE, NCVET, DoSEL & DoHE, MoE,
MSDE, CBSE, NCERT, NIOS and DGT

April 2023

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The Report on **National Credit Framework (NCrF)** jointly developed by the High-Level Committee comprising of members from University Grant Commission (UGC), All India Council for Technical Education (AICTE), National Council for Vocational Education and Training (NCVET), National Council for National Council for Educational Research and Training (NCERT), Department of School Education and Literacy (DoSEL) & Department of Higher Education (DoHE), Ministry of Education (MoE), Ministry of Skill Development and Entrepreneurship (MSDE), Central Board of Secondary Education (CBSE), National Institute of Open Schooling (NIOS) and Directorate General of Training (DGT)

TABLE OF CONTENTS

FOREWORD		01
PREFACE		02
CONSTITUTION OF COMMITTEE ON CREDIT FRAMEWORK		08
THE NATIONAL CREDIT FRAMEWORK:		10
EXECUTIVE SUMMARY		11
1.	Section 1: OVERVIEW	16
1.1.	INTRODUCTION	16
1.2.	CREDITS IN INDIAN CONTEXT	17
1.2.1.	School Education	17
1.2.2.	Higher Education	18
1.2.3.	Vocational education and Training/ Skilling	21
2.	SECTION 2: GENESIS OF THE NATIONAL CREDIT FRAMEWORK	23
2.1.	NEED FOR THE NATIONAL CREDIT FRAMEWORK	23
2.2.	NATIONAL CREDIT FRAMEWORK- ENABLING EFFECTIVE TRANSFORMATION IN EDUCATION & SKILL ECOSYSTEM THROUGH IMPLEMENTATION OF NEP 2020	23
2.3.	ADVANTAGES OF NATIONAL CREDIT FRAMEWORK	24
2.3.1.	Removal of Hard Separations between Educational Streams, General and Vocational education, Curricular & other activities	24
2.3.2.	Establishing Equivalence Between General and Vocational education & training/ skilling	25
2.3.3.	Mobility Between and Within General and Vocational education & training/ skilling	25
2.3.4.	Enabling Provisions for Lifelong Learning Through Multiple Entry and Multiple Exit (ME-ME) Options	26
2.3.5.	Integration and Intermingling of Education, Skilling and Work Experience	27
2.3.6.	Enabling creditization of learning for students with varying learning capacities	27
2.3.7.	Enables provisions for Recognition of Prior Learning (RPL)	28
3.	SECTION 3: DEVELOPING THE NATIONAL CREDIT FRAMEWORK	29
3.1.	FORMULATION OF THE HIGHLEVEL COMMITTEE (HLC)	29
3.2.	THE NATIONAL CREDIT FRAMEWORK, ONE SINGLE META FRAMEWORK; THE BASIC PRINCIPLES	30
3.2.1.	National Credit Framework (NCrF) to be One Single Meta Framework	31
3.2.2.	National Credit Framework- The Basic Principles	31
3.2.3.	Credit and Credit Points	34
3.2.4.	Total Notional Learning Hours in a Year for Assignment of Credits	35
3.2.5.	What Constitutes Learning Hours - Components of Learning	35
3.2.6.	NCrF Credit Levels	40
3.2.7.	Notional Hours and Credit Assignment	41
3.2.8.	Credits Assignment for Additional Learning Hours	42
3.2.9.	Assessment Bands	43
3.2.10.	Major Dimensions of National Credit Framework	46

3.3. ASSIGNMENT OF CREDITS IN NATIONAL CREDIT FRAMEWORK 48
3.3.1. Mechanism for Assignment of Credits and Calculation of Credit Points 48
3.3.2. Credits Assigned by Virtue of Academic Education 48
3.3.3. Credits Assignment for Vocational Education and Training & Skilling 51
3.3.4. Credits Assignment for Relevant Experience and Professional/Proficiency Levels Acquired 58
3.4. CREDIT ACCUMULATION AND TRANSFER (OPERATIONALIZATION OF CREDIT FRAMEWORK) 60
3.4.1. Establishing Academic Equivalence Within and Between General Education and Vocational Education and Training/ Skilling 61
3.4.2. Credit Framework Enabling Entry Eligibility for Academic & Vocational Progression 70
3.4.3. Establishing Multiple Entry and Multiple Exit (ME-ME) Pathways 71
3.4.4. International Mobility 72
3.4.5. Enabling Requirements for a Job/ Employment 75
3.5. CREDIT STORAGE AND REDEMPTION THROUGH ACADEMIC BANK OF CREDITS 75
3.5.1. Mechanism for Credit Storage 75
3.5.2. Accumulation and Storage of Credits 75
3.5.3. Verification of Credits Earned 76
3.5.4. Redemption of Accumulated Credits 76
3.5.5. Credits Expiry and Renewal 76
3.6. Implementation Operationalization Guidelines and SOPs 77
3.6.1. SOPs and Guidelines 77
3.6.2. Operationalization of NCrF by the concerned Regulators and Autonomous Institutions 78
3.6.3. Mechanism For Removal of Difficult During Implementation 79
3.7. Indicative Roles and Responsibilities of the Stakeholders 79
4. Section 4: SPECIAL PROVISIONS IN NATIONAL CREDIT FRAMEWORK 80
4.1. Provisions for Creditization of Special Cases of learning: Educational Accelerations 83
4.2. Provision for Recognition for Prior Learning 85
4.3. Provisions for Creditization of Special Cases of learning: Divyangs/ Persons with Disability 88
4.4. Provision for special events like Hackathon, Olympiads 89
5. OUTCOMES OF THE PROPOSED NATIONAL CREDIT FRAMEWORK: REALISING THE VISION OF NATIONAL EDUCATION POLICY 2020 90
Annexure I: Comparative Analysis of Credit Mechanism of IITs 94
Annexure II: TYPES OF ASSESSMENTS (BLENDED LEARNING GUIDELINES OF NCVET) 95
Annexure III: MULTIPLE ENTRY MULTIPLE EXIT options by UGC & AICTE 97
Bibliography/ Sources/ References 99

FOREWORD



Educational opportunities and effective skilling are the driving force of economic growth and social development for any country. India is the world's youngest nation in terms of youth population with a burgeoning economy. The benefits of these strengths can be evenly spread across the country only when the youth is well educated and appropriately skilled. Quality education that meets the need of the industry and enhances employment, therefore, is a pressing need. Emphasizing that there should be no hard separation among curricular and extracurricular or co-curricular or between vocational or academic streams, the National Education Policy (NEP) 2020 stressed upon the need for vocational education through integration and mainstreaming of vocational education with general education. This calls for re-engineering of education system.

The High-Level Committee constituted by the Government to formulate a unified credit accumulation & transfer framework for both vocational and general education, from school education to higher education, has developed "National Credit Framework" encompassing three main components such as credits earned from academic grade, skill programme and relevant experience. This framework will enable establishing equivalence and mobility between general education and vocational education so that lifelong learning, recognition of prior learning, multiple entry and exit, and continuous professional development are encouraged in the system.

I congratulate the High-Level Committee under the chairmanship of Dr N. S. Kalsi, Chairman, NCVET for taking on this challenging task of drafting the "National Credit Framework". I am sure this framework will make studies and courses more transparent, flexible and provide skilled manpower for India's economy to achieve inclusive and equitable growth.



Prof. M. Jagadesh Kumar
Chairman
University Grants Commission

PREFACE



National Education Policy (NEP), 2020, envisioned under the dynamic leadership of **our Hon'ble Prime Minister, Shri Narendra Modi,** reflects **the aspiration** of the **students, teachers and citizens** of the country. The NEP is rooted in ***Bhartiya*** and is in sync with the culture and heritage of our nation while assimilating global knowledge and perspective.

The National Education Policy 2020, **lays emphasis on of making the education more holistic and effective by integration of general (academic) and vocational education** while ensuring the **vertical and horizontal mobility of students and learners** between academic and vocational streams. Built on the **foundational pillars of access, equity, quality, affordability and accountability**, NEP strives to **transform India into a vibrant knowledge society** to become a global knowledge superpower ***(Vishwaguru)***.

To realise the intent and objectives of National Education Policy 2020, the **National Credit Framework (NCrF),** has been developed **under the guidance of Shri Dharmendra Pradhan, Hon'ble Minister of Education and Minister of Skill Development & Entrepreneurship** jointly by a **High Level Committee** constituted by the Government with members from UGC, AICTE, NCVET, NIOS, CBSE, NCERT, Department of School Education and Learning & Department of Higher Education, Ministry of Education, DGT, and Ministry of Skill Development. NCrF is a **comprehensive credit framework** encompassing elementary, school, higher, and vocational education & training, **integrating creditization of learning** on in various dimensions i.e. **academics, vocational skills and Experiential learning including relevant experience and proficiency/ professional levels acquired**.

The NCrF provides for **creditization of all learning and assignment, accumulation, storage, transfer & redemption of credits, subject to assessment; removes distinction and establishes** academic **equivalence** between vocational & general education while enabling **mobility** within & between them, and its operationalization through the Academic Bank of Credits (ABC).

The **NCrF relies on an integrating approach** across the **education and skilling frameworks enabling** the education and skilling ecosystem **in implementing** one single credit-based framework in line with the vision of National Education Policy 2020.While catering to **multi-disciplinarity and holistic education** across sciences, social sciences, arts, humanities and sports, NCrF **enables multiple entry - multiple exit** (ME-ME) **pathways** in general & vocational education; **ensures flexibility for students** to choose their **learning trajectories and career choices,** including option for **mid-way course correction or modification**, as per their talents and interests.

NCrF also recognizes blended and online learning, promoting extensive use of technology in teaching and learning, especially in vocational education, training and skilling. Use of technology in turn helps in removing barriers while improving **access and opportunities for Divyangs**.

Implementation of NCrF will promote Internationalization of education by enabling equivalence of courses and qualifications, provisions of credit transfer**,** and encourage international exchange of students and faculty with foreign universities.

NCrF has enabled special provisions for educational acceleration for gifted students with special learning abilities as also for Recognition of Prior Learning for workforce those have acquired the knowledge and skills informally, through family inheritance, work experience, traditional or other methods, **thereby allowing them progression and mobility into the formal education and learning ecosystem.**

The NCrF will enable transformation of India **by providing high quality education opportunities integrated with effective skills** to reap the demographic dividend making education and skilling truly **aspirational for our youth**.

The NCrF is an enabling framework and may not be construed as a regulation. It empowers, facilitates and allows the stakeholders while giving them the required flexibility for catering to their specific academic and skilling needs. National Credit Framework (NCrF) shall act as one single **broad enabling frameworks** for all regulatory organizations, and autonomous institutions who may, wherever required, **notify their detailed implementation guidelines** within this Framework. I am confident that NCrF will become a game changer by mainstreaming the skill education and experiential learning including relevant experience & proficiency/professional levels acquired, making this integral part of the education system thereby ensuring that the youth is provided with educational opportunities with quality skills for better employability.

As a part of this framework formulation and finalisation process extensive consultations have been carried out with various stakeholders including the presentations & discussions on the contours of National Credit Framework with IITs, IIMs, IIITs, NITs, IISERs, INIs, Universities, including skills universities and technical universities, HEIs, Engineering Colleges, School Boards, Technical Education Boards, state departments of education, higher education, technical education and skill education among many others. The draft national credit framework was given wide publicity and also put up for public consultation for more than 40 days and all comments and suggestions received have been duly analysed and, wherever necessary, have been incorporated in the document.

I am thankful to all the esteemed members of the High-Level Committee namely Shri Atul Kumar Tiwari, now Secretary, Ministry of Skill Development & Entrepreneurship, Shri Manoj Ahuja, the then

Chairperson CBSE, Shri Vineet Joshi, Additional Secretary, DoHE & Director General NTA, Shri. Maneesh Garg, Joint Secretary, DoSEL, MoE, Ms. Nidhi Chhibber, Chairperson CBSE, Prof. M.P Poonia, Vice- Chairman, AICTE, Prof. Rajnish Jain, Secretary, UGC, Prof. (Dr.) Saroj Sharma, Chairperson, NIOS, Dr. Dinesh Prasad Saklani, Director, NCERT, Dr Sridhar Srivastava, officiating Director, NCERT and Dr. Biswajit Saha, Director (Training & Skill Education), CBSE, Member-Secretary of the committee for working relentlessly on this framework, providing their valuable inputs, insights and support in bringing out this report. I acknowledge their invaluable contribution in formulation of this framework in such a short timeframe.

This document would have not been possible without the valuable guidance and unstinted support of Prof. Jagadesh Kumar, Chairman, UGC and Prof. Anil Sahasrabudhe, the then Chairman, AICTE. I whole heartedly thank them. I am also thankful for the valuable support of Sh. Rajesh Aggarwal, the then Secretary, Ministry of Skill Development and Entrepreneurship, Sh. Sanjay Murthy, Secretary Department of Higher Education, Smt. Anita Karwal, Secretary Department of School Education and Learning, Ministry of Education in bringing out this policy. I would also like to thank Dr. Vinita Aggarwal, Dr. Neena Pahuja the Executive Members, Lt Col Gunjan Chowdhary, Director, Ms. Sarika Dixit and Mr. Shourya Sangam, consultants at NCVET for their persistent help and assistance in preparing this document.

My best wishes to all the stakeholders for effective & efficient implementation of this much awaited framework which will be a game changer for the education and skilling landscape of the country for not only country's growth but also making education and skilling aspirational for our youth and making India the **skill capital of the world** by our global recognition in the education and skilling domain.



Dr. Nirmaljeet Singh Kalsi, IAS (Retd.)
Chairperson of NCVET &
High-Level Committee

ABBREVIATIONS

AICTE	-	All India Institute of Technical Education
CBCS	-	Choice Based Credit System
CBSE	-	Central Board of Secondary Education
CITS	-	Craftsman Instructor Training Scheme
CTS	-	Craftsman Training Scheme
DGT	-	Directorate General of Training
HEIs	-	Higher Education Institutes
MSDE	-	Ministry of Skill Development and Entrepreneurship
NAC	-	National Apprenticeship Certificate
NCERT	-	National Council for Educational Research and Training
NCrF	-	National Credit Framework
NCVET	-	National Council forVocational Education and Training
NEP	-	National Education Policy
NSEQF	-	National School Education Qualification Framework
NHEQF	-	National Higher Education Qualification Framework
NIOS	-	National Institute of Open Schooling
NSQF	-	National Skill Qualifications Framework
NTA	-	National Testing Agency
NTC	-	National Trade Certificate
SAMVAY	-	Skill Assessment Matrix for Vocational Advancement of Youth
SDG	-	Sustainable Development Goals
UGC	-	University Grants Commission
VET	-	Vocational Education and Training

CONSTITUTION OF COMMITTEE ON CREDIT FRAMEWORK

The Government of India Constituted a High-Level Committee, vide order dated 18th November 2021, to develop a National Credit Accumulation & Transfer Framework for both Vocational and General Education. The Credit Framework would enable the integration of academic and vocational domains/components of learning and ensure flexibility and mobility between the two. The composition of the Committee is as follows:

1.	**Dr. Nirmaljeet Singh Kalsi, Chairperson, NCVET**	**Chairman**
2.	Shri Manoj Ahuja, Chairman, CBSE	Member
3.	Shri Atul Kumar Tiwari, Addl Secretary, MSDE	Member
4.	Shri Vineet Joshi Addl Secretary DoHE & Director General NTA, Chairman, CBSE	Member
5.	Smt. Neelam Shammi Rao, Addl Secretary & DG, DGT, MSDE	Member
6.	Shri. Maneesh Garg, Joint Secretary, DoSEL, MoE	Member
7.	Prof. Rajnish Jain, Secretary, UGC	Member
8.	Prof. (Dr.) Saroj Sharma, Chairperson, NIOS	Member
9.	Prof. M.P Poonia, Vice- Chairman, AICTE	Member
10.	Dr Sridhar Srivastava, Director, NCERT	Member
11.	Dr. Biswajit Saha, Director (Training & Skill Education), CBSE	Member-Secretary

TERMS OF REFERENCE OF THE HIGH LEVEL COMMITTEE

i. Assign credit value to academic and skill courses taught at various levels

   a. School education,

   b. Higher Education,

   c. Skilling Ecosystem, Vocational Training and Education

   d. Distance/ Blended Learning, etc.

ii. Identify ways of Credit Accumulation for:

   a. School Education

   b. Higher Education.

   c. Vocational education and Training

iii. Propose Credit Transfer Model for:

   a. Vocational and School Education and vice-versa

   b. Vocational and Higher Education and vice-versa

iv. Establish academic equivalence between Vocational and General Education at all levels.

v. Develop the unified credit framework for integration of vocational education and training/ skilling into school and higher education in line with the National Education Policy 2020 to enable vertical and horizontal mobility between education and skilling

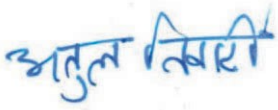
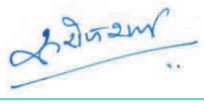
vi. Identify the mechanism for accumulation and storage of credits through a Credit Bank

vii. Any other matter relating to the development and functioning of the unified credit framework

The Final Report has agreement and signature of all the esteemed members of the High level Committee.

NATIONAL CREDIT FRAMEWORK

We, the undersigned members of the High Level Committee constituted by Ministry of Skill Development and Entrepreneurship (MSDE) vide order no Coord-11/01/2021-P&C dated 18th November 2021 on the National Credit Accumulation and Transfer Framework for both Vocational and General Education, hereby submit the final Report of National Credit Framework (NCrF):

S.No.	Name and Designation		Signature with Date
i.	Dr. Nirmaljeet Singh Kalsi, Chairperson, National Council of Vocational Education and Training (NCVET)	Chairman	
ii.	Shri Atul Kumar Tiwari, Secretary, Ministry of Skill Development and Entrepreneurship (MSDE) (Then Addl Secy MSDE)	Member	
iii.	Shri Vineet Joshi, AS, DoHE, MoE & Director General NTA	Member	
iv.	Ms. Nidhi Chibber, Chairperson, CBSE	Member	
v.	Shri. Maneesh Garg, Joint Secretary, DoSEL, MoE	Member	Transferred out
vi.	Smt. Trishaljit Sethi, Director General, DGT, MSDE	Member	
vii.	Prof. M.P Paonia, Vice-Chairman, AICTE	Member	
viii.	Prof. RajnishJain, Secretary, UGC	Member	
ix.	Dr. Dinesh Prasad Saklani, Director, NCERT	Member	
x.	Prof. (Dr.) Saroj Sharma, Chairperson, NIOS	Member	
xi.	Dr. Biswajit Saha, Director (Training & Skill Education), CBSE	Member - Secretary	

THE NATIONAL CREDIT FRAMEWORK: EXECUTIVE SUMMARY

Manifesting the National Education Policy 2020

The National Education Policy 2020 envisions making education more holistic and effective and to lay emphasis on the integration of general (academic) education, vocational education and experiential learning including relevant experience and proficiency/ professional levels acquired. To fulfil this vision, it is imperative to establish and formalize a national credit accumulation and transfer system which will **integrate both general & vocational education** while ensuring mobility of students/ learners within and between the two systems.

The **National Credit Framework (NCrF)** has been jointly developed by UGC, AICTE, NCVET, NIOS, CBSE, NCERT, DGT, Ministry of Education, and Ministry of Skill Development to achieve the vision and intent of NEP. NCrF is a comprehensive framework encompassing elementary, school, higher, and vocational education & training, integrating **learning on all dimensions i.e. academics, vocational skills and experiential learning including relevant experience and proficiency/ professional levels acquired**.

The **National Credit Framework (NCrF) is an inclusive one single meta framework** to seamlessly integrate the credits earned through school education, higher education and vocational & skill education. For creditization and integration of all learning, the National Credit Framework (NCrF) shall encompass the qualification frameworks for higher education, vocational & skill education and school education, namely National Higher Education Qualification Framework (NHEQF), National Skills Qualification Framework (NSQF) and **National Curriculum Framework (NCF)/** National School Education Qualification Framework (NSEQF) respectively.

The implementation of **NCrF would be a game changer** in realising the vision and intent of NEP by ensuring **flexibility & mobility** and **establishing academic equivalence** between general and vocational education **while removing distinction between them.** Such integration shall open numerous options for further progression of students and inter-mingling of school & higher education with vocational education &experiential learning including relevant experience and proficiency/ professional levels acquired, to further enable entry and re-entry from vocational stream to general education and vice-versa, thus mainstreaming the vocational education and skilling.

The National Credit Framework (NCrF) enables for broad based, **multi-disciplinary, holistic education**, allowing **imaginative and need based curricular structures** and encourages **creative combinations of subjects and disciplines.** The Framework has been built on the strength of existing regulations, guidelines and qualification frameworks of UGC, AICTE, NCVET, NCERT, CBSE & NIOS as

also the credit system being followed by IITs, IIMs, NITs and other INIs so that the options for Multiple Entry-Multiple Exit (ME-ME) are available, accessible and applicable across the higher education, school education and vocational education.

The National Credit Framework (NCrF) provides **for Assignment, Accumulation, Storage, Transfer & Redemption of Credits**. It paves way for **multi-disciplinary education** and **empowers students** through **flexibility in choice of cou**rses for choosing their **own learning trajectories and programmes**, and thereby choose their paths in life with **appropriate career choices**, including **option for mid-way course correction**s, according to their talents and interests.

The NCrF fully enables the students with opportunities to catch up and re-enter education ecosystem in case they have fallen behind or dropped out at any stage. NCrF also fully supports **educational acceleration for students with gifted learning abilities and Recognition of Prior Learning for workforce that has** acquired knowledge and skills informally through the traditional family inheritance, work experience or other non-formal or informal methods, **thereby allowing them integration, progression and mobility into formal education ecosystem.**

The total **Notional Learning Hours** for one year of education/ learning across school education, higher education and vocational education, training and skilling have been agreed to be **1200 Hrs per year** for the purpose of assignment of credits for which the students/ learners shall be **awarded 40 Credits** subject to assessment**.**

Thus for the purpose of credit calculations under National Credit Framework (NCrF), overall, one Credit is equivalent to 30 notional learning hours while the regulators or autonomous institutions may provide for different number of hours per credit for theory practical and experiential learning. The assignment of credits is independent of the education streams, subjects or type of learning. The students/ learners may take additional courses, programs, subjects or projects beyond 40 credits to get additional credits for the same.

The NCrF recognises **no hard separation between different areas of learning**, i.e. arts and sciences, vocational and academic streams, curricular and extra-curricular for the purpose of assignment of credits and credit levels. In the true spirit of National Education Policy 2020, **the total learning hours of students / learners can be creditized, subject** to assessment.

The **learning hours may include** class room learning, teaching, practical and laboratory work, innovation labs, class projects, assignments, tutorials; sports and games, yoga, physical activities, performing arts, music, handicraft work, social work, NCC, bag less days; examinations, class tests, quizzes, assessments; vocational education, training and skilling, minor or major project work, field visits in skill education as well as internship, apprenticeship, on the job training (OJT), and experiential learning including relevant proficiency and professional levels acquired etc.

Such an approach would also close the gap in achievement of learning outcomes by shifting focus from the classroom education to competency and learning outcome-based learning.

Under the National Credit Framework (NCrF) **every learning hour can be creditized subject to its assessment.** The **Credit levels** to be assigned across school/ higher/ vocational education/ skilling**,** (independent of the streams, subjects etc.) are based on the **cumulative numbers of years of learning with assessment.** For earning credits, the course/ qualification should be aligned to the qualification framework concerned, be assigned a defined NCrF level while clearly describing the desired competency and learning outcome expected. Also, the learning outcome shall be assessed after completing the course/ qualification for assignment of credits.

The **assessment is thus mandatory for earning credits** for all types of learning. **The Assessment** are the stages at which the student/ learner needs to be formally assessed for progression in academic/ vocational/ skilling streams. (e.g. 10th/ 12th board exams, DGT's assessment and exams for CTS, UG/ PG exams in higher education). The NCrF Credits for the two courses/ qualifications/ programs may be added to each other and accumulated in ABC if these are earned in the same assessment band subject to the guidelines of the respective regulators.

The NCrF credit levels to be assigned for school education are up to level 4, while for higher education the NCrF levels will be assigned from Level 4.5. to level 8 [Undergraduate Levels: 4.5, 5.0, 5.5 & 6.0; Post Graduate Levels: 6.0, 6.5 & 7.0; and PhD Level 8] and for vocational education & training from level 1 to level 8.

The total Credit Points earned by the student in a particular year could be obtained by multiplying the credits earned with the NCrF Level at which the credits have been earned. The credit points may be redeemed as per the guidelines issued in this regard for entry or admission in school, higher, technical or vocational education programs/ courses at multiple levels enabling horizontal and vertical mobility with various lateral entry and exit options.

In addition to the credits for higher education, the **Academic Bank of Credit (ABC)** shall also be expanded to include **credits earned through school education, vocational education, training and skilling, including apprenticeships, internships, project work etc.** ABC could digitally store the academic and other credits earned from recognized institutions / bodies so that credits could be redeemed, and the relevant award of certificate, diploma or degree granted taking into account the credits / credit points earned at various NCrF levels. The credits may also be linked to Digi locker for easy verification and portability.

The National Credit Framework (NCrF) also **enables creditization of experiential learning including relevant experience and proficiency/professional levels acquired**, based on the weightage for the purpose, subject to assessment.

Assignment of Credits has also been enabled for online, digital and blended learning, especially in vocational education and skilling to expand the open and distance learning options and to promote extensive use of technology in education, learning & skilling. This would help in overcoming the constraints of physical infrastructure & scalability while enhancing access, equity, and affordability and ensuring quality and accountability. The blended learning option shall also **enhance accessibility of learning in Indian language for 90% non-English medium students as well as for Divyangs.**

National Credit Framework (NCrF) will encourage **internationalization of education through credit transfer provisions,** thus enabling **wider recognition and acceptance of Indian education and skilling** by other countries through **international equivalence,** promoting exchange with foreign universities and institutions.

Thus, there would be only **one National Credit Framework** for higher education, school education, vocational education, training and skill education, namely the **National Credit Framework (NCrF)** which would be the **single meta framework document notified for creditization and integrating learning in various dimensions** of academics, skilling and experiential learning including relevant experience and proficiency/ professional levels acquired, The NCrF would be operationalised through the Academic Bank of Credits (ABC). The **qualification frameworks for school, higher education and skills would be aligned with NCrF.** The **basic principles and provisions of National Credit Framework (NCrF)** would be **applicable to all the qualification frameworks**.

National Credit Framework (NCrF) shall act as a **broad enabling framework** for all regulatory organizations (UGC, AICTE, NCVET, NCERT etc.), and autonomous institutions, including Universities, INIs, CBSE, NIOS, State School Boards, State Technical Education Boards, etc. who may, wherever required, **notify their detailed implementation guidelines. However, all such guidelines shall confirm to the provisions of the national credit framework.** The **NCrF** empowers institutions and enables them with the required flexibility for catering to their specific academic requirements and other special needs**.**

The National Credit Framework (NCrF) shall not only enable effective implementation of the vision of National Education Policy 2020 through integration of various policy endeavors under general education and vocational education but will also be a game changer to establish a benchmark for holistic education and learning integrated with skills, by removal of barriers, infusion of flexibility and creation of lifelong learning opportunities. NCrF will enable transformation of India by providing high quality education opportunities integrated with effective skills to reap the demographic dividend making education and skilling truly aspirational.

NATIONAL CREDIT FRAMEWORK

1. SECTION 1: OVERVIEW

1.1. INTRODUCTION

Education is fundamental for achieving full human potential, developing an equitable society and promoting national development. Providing universal access to quality education is the key to India's continued ascent and leadership on the global stage in terms of economic growth, social justice & equality, scientific advancement, national integration, and cultural preservation. Universal high-quality education opportunities integrated with effective skills is the best way forward for developing and maximizing our country's rich talents and resources for the good of the individual, the society, the country, and the world.

Today, India is one of the youngest nations in the world with more than 62% of its population in the working-age group (15-59 years), and over 54% of its total population below 25 years of age. Its population pyramid is expected to bulge across the 15-59 age groups over the next decade. This is a huge opportunity and at the same time poses a formidable challenge. To reap this demographic dividend India needs to equip its workforce with knowledge and employable skills so that they can contribute substantively to the economic growth and development of the country. Our ability to provide high-quality educational opportunities to the youth will determine the future of our country.

Not only the educational opportunities but effective skilling is also the driving force of economic growth and social development for any country. Countries with higher levels and standards of skills adjust more effectively to the challenges and opportunities in domestic and international job markets. The United Nations in the epic summit of 2015 on 'Transforming our World: the 2030 Agenda for Sustainable Development' defined 17 Sustainable Development Goals (SDGs) which places emphasis on 'skill' apart from the 'basic necessities' for people across the world.

The SDGs have defined skill development requirement as - 'to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all'. The SDGs report 2018 by the United Nations shows that 42% of the world population is young with a global youth unemployment rate of 13%, which can be brought down drastically by skilling the youth.

The global education development agenda reflected in the Goal 4 (SDG4) of the 2030 Agenda for Sustainable Development, adopted by India in 2015 seeks to 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all' by 2030. Such a lofty goal will require the entire education system to be reconfigured to support and foster learning, so that all of the critical targets and goals (SDGs) of the 2030 Agenda for Sustainable Development can be achieved. Efforts

made in this direction should meet the needs of all sectors of economy including primary, industry and the service sectors. Such efforts should also be learner centric to make the entire skilling movement aspirational. Skill training needs to be considered as a complementary and essential part of mainstream education, rather than being regarded as a secondary alternative, as also envisaged under the National Education Policy (NEP), 2020.

This National Education Policy, 2020 envisions an education system rooted in Indian ethos that contributes directly to transforming India, into an equitable and vibrant knowledge society, by providing high-quality education to all and thereby making India a global knowledge superpower. The Policy envisages that the curriculum and pedagogy of our institutions must develop among the students a deep sense of respect towards the Fundamental Duties and Constitutional values, bonding with one's country and a conscious awareness of one's roles and responsibilities in a changing world.

The vision of this policy is to instill among the learners a deep-rooted pride in being Indian, not only in thought, but also in spirit, intellect, and deeds, as well as to develop knowledge, skills, values, and dispositions that support responsible commitment to human rights, sustainable development & living, and global well-being, thereby reflecting a truly global citizen. Education with effective skilling is a great leveller and is the best tool for achieving economic and social mobility, inclusion, and equality. These elements must be incorporated considering the local and global needs of the country, and with a respect for and deference to its rich diversity and culture.

The National Education Policy seeks to provide to all students, irrespective of their place of residence, a quality education system, with particular focus on historically marginalized, disadvantaged, and under-represented groups. Instilling knowledge of India and its varied social, cultural, and technological needs, its inimitable artistic, language, and knowledge traditions, and its strong ethics in India's young people is considered critical for purposes of national pride, self-confidence, self-knowledge, cooperation, and integration. This may be achieved by a number of factors and an important one amongst these being establishing equivalence and mobility between general education and vocational education and training/ skilling so that lifelong learning, recognition of prior learning, multiple entry and exit, and continuous professional development is encouraged in the system.

1.2. CREDITS IN INDIAN CONTEXT

1.2.1. School Education

At present, there is no established credit mechanism for regular school education. However, under the open schooling system, the National Institute of Open Schooling (NIOS) follows the following credit system:

i. Each subject is assigned 240 hours for self-study. Total 5 subjects are required at the

Secondary and Senior Secondary level which makes it of 1200 hours and 40 credits in one year

ii. 1 credit is equivalent to 30 hours of total study i.e. each subject is of 8 credits.

There is no distinction for allocation of credits based on type of learning like theory, practical or experiential learning etc.

1.2.2. Higher Education

I. CHOICE BASED CREDIT SYSTEM (CBCS) BY UGC

Under the CBCS system, the requirement for awarding a degree or diploma or certificate is prescribed in terms of number of credits to be earned by the students. This framework is being implemented in several universities across States in India. The main highlights of CBCS are as below:

- The CBCS provides flexibility in designing curriculum and assigning credits based on the course content and learning hours.
- The CBCS provides for a system wherein students can take courses of their choice, learn at their own pace, undergo additional courses and acquire more than the required credits, and adopt an interdisciplinary approach to learning.
- CBCS also provides opportunity for vertical mobility to students from a bachelor's degree programme to masters and research degree programmes.

The detailed Guidelines for Choice Based Credit System is available at https://ugc.ac.in/pdfnews/8023719_Guidelines-for-CBCS.pdf

II. SKILL ASSESSMENT MATRIX FOR VOCATIONAL ADVANCEMENT OF YOUTH (SAMVAY) BY AICTE

The scheme on Skill Assessment Matrix for Vocational Advancement of Youth (SAMVAY) is a credit framework for skill-based vocational courses which was launched by MHRD on 11th November 2014. The SAMVAY defines the rules for credit allotment and follows the NSQF regulatory framework while stating the credit assessment requirements for skills. The skill-based courses, under SAMVAY, generally, have both the skills and general education components.

The following formula may be used for the credit calculation in general education component of the courses:

i. General Education credit refers to a unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching [lecture or tutorial] or two hours of practical work/field work per week. Accordingly, one Credit would mean equivalent of 14-15 hrs of theory or 28 - 30 hrs of workshop/ lab work.

ii. One Credit is equivalent to 14-15 periods of 60 minutes each, for theory, or 28-30 periods of 60 minutes for workshop/labs and tutorials.

iii. For internship/field work, the credit weightage for equivalent hours is 50% of that for lectures/tutorials.

iv. For self-learning, based on e-content or otherwise, the credit weightage for equivalent hours of study is 50% or less of that for lectures/tutorials.

For the ease of calculation, the break -up of credit with respect to general education component is as in the table below:

Table1: Break-Up of Credits

Theory 1 Credit = 15 hours	Practical 1 Credit = 30 hours	Experiential learning including relevant experience and proficiency/ professional levels acquired 1 Credit = 40-45 hours
• In each theory class, a new concept is taught, and the student is learning something new throughout the class. • It also involves self-learning.	• The practical is dependent on theory and experiments performed are based on concepts learned in theory class. • Repetition of an already learned concept. Observations are taken again and again	Experiential learning including relevant experience and professional levels acquired activities like field visits, industrial visits, etc carry lesser weightage because it is just an observation and/or application of concepts learned

As per SAMVAY, the credits regarding skill component may be awarded in terms of NSQF level certification which will have more than 50% weightage of total credits of the course based on the assessment in a manner prescribed by the concerned regulatory body.

The latest SAMVAY guidelines are available at: SAMVAY_1_.pdf (aicte-india.org)

III. UGC GUIDELINES FOR PROVIDING SKILL-BASED EDUCATION UNDER NATIONAL SKILL QUALIFICATION FRAMEWORK

Under these guidelines, the skill-based programmes shall have a mix of general and skill components in which 30-40% of the total content shall be of general nature including language courses while the remaining 60% (extendable upto 70%)of the content shall be on skill development. In such programs the following formula is used for conversion of time into credit hours.:

a. Skill Component: The skill component should have a minimum of 60% (extendable upto a maximum of 70%) of the total credits. The skill component will include practical classes in laboratories / workshops, internships, apprenticeships and any other forms of hands on training.

b. General Education Component: The balance credits of the program i.e. 30-40% are of general component. This will include curricula which are supportive to the core trade in addition to communication skills, soft skills, digital skills, critical thinking, problem solving skills, environmental studies and value education.

The Credit assigned for the general education components are in line with SAMVAY. The detailed guidelines can be accessed at 6556003_Guidelines-for-providing-Skill-Based-Education-under-NSQF.pdf (ugc.ac.in) and summary document at NSQF New Guidelines.pdf (ugc.ac.in)

IV. CREDITS STRUCTURE FOR AUTONOMOUS INSTITUTIONS LIKE IIT/IIMs

The institutions like IIT/IIMs in India are autonomous and each institution implements its own credit system which broadly follow the similar system. Education and learning at such institute/s are generally organized around the semester-based credit system of study. There is a process of continuous evaluation of a student's performance/progress and flexibility is allowed to students to progress at an optimum pace suited to their ability or convenience, subject to fulfilling minimum requirements for continuation and within the maximum allowable period for completion of a degree/ program of study.

The IITs in general follow a concept of L-T-P Structure which means Lectures, tutorials and practical hours respectively. The curricular design of programs being offered and the assignment of credits for lectures, tutorials and practical varies from IIT to IIT. A use case indicating comparison of the credit system for 4 IITs namely- IIT Delhi, IIT Madras, IIT Bombay and IIT Guwahati is placed at Annexure I.

1.2.3. Vocational education and Training/ Skilling

I. NATIONAL SKILLS QUALIFICATION FRAMEWORK (NSQF)

The National Skills Qualification Framework (NSQF) was notified on 27th December 2013, by the Ministry of Finance, pursuant to the decision of the Cabinet Committee on Skill Development held on 19th December 2013.

NSQF is a national competency-based skill framework that provides for multiple pathways, horizontal as well as vertical to facilitate mobility both within vocational education and training/ skilling and between vocational education and training/ skilling and general education thus linking one level of learning to another higher level. The NSQF is also a quality assurance framework as it organizes qualifications in a series of 10 levels (now revised to 8 levels) based on Professional Theoretical Knowledge, Professional and Technical Skills/ Expertise, Employment Readiness & Entrepreneurship Skills & Mind-set, Broad Learning Outcomes and Responsibility. These levels are defined in terms of learning outcomes which are an explicit description of what a learner should know, understand and be able to do as a result of learning, regardless of whether these competencies were acquired through formal, experiential, non-formal or informal learning. This enables learners to acquire the desired competency levels, transit to the job market, and at an opportune time, return for acquiring additional/ advanced skills as required to further upgrade their competencies.

The NSQF is based on an outcome based approach wherein each level is defined and described in terms of competency levels that are to be achieved, thereby enabling clear provisions for mobility (both vertical & horizontal) and making progression pathways transparent for students, institutions and employers. The NSQF has resulted in development of quality qualifications applicable both in school education and higher education and has also helped in alignment of Indian qualifications to international qualifications through existing qualification frameworks of other countries. The NSQF facilitates the awarding of credit and supports credit transfer and progression routes within the Indian Education and Training system.

NSQF is anchored in National Council for Vocational Education and Training (NCVET) and is implemented through National Skills Qualification Committee (NSQC) for which a permanent secretariat is set up in NCVET. The NSQC has representation from Central Ministries, NITI Aayog, all regulators including UGC, AICTE, and CBSE, Awarding Bodies like the Directorate General of Training (DGT), Sector Skill Councils (SSCs) and the State Skill Development Missions, and select industry bodies by rotation.

Thus NSQC represents the stakeholders from higher education, technical education, school education, open schooling, informal education and skill ecosystem including the representatives from various ministries connected with education & skilling. NSQC also has stakeholders from the sector skill councils which are in turn representing industries, recognized industry associations by rotation, state governments by rotation and concerned awarding bodies

The detailed NSQF notification can be accessed at https://www.ncvet.gov.in/nsqf-notification.

2. SECTION 2: GENESIS OF THE NATIONAL CREDIT FRAMEWORK

2.1. NEED FOR THE NATIONAL CREDIT FRAMEWORK

The National Education Policy 2020, lays emphasis on the integration of the general (academic) education and vocational education & training/skilling with provision for seamless horizontal and vertical mobility between the two for lifelong learning. Such integration shall enable desired reforms in the education and skilling systems. In addition, this integration of vocational education and training/ skilling programmes into mainstream education at all levels, as is highlighted in NEP 2020, will lead to removal of distinction between general and vocational education and training/ skilling while at the same time enable establishing academic equivalence between the two which is the most important way of making the vocational education and training/ skilling aspirational' for the youth. The integration would also lead to emphasizing the dignity of labour and importance of various vocations.

To fulfil the vision of National Education Policy 2020, make education more holistic and effective and to lay emphasis on the integration of general (academic) education, vocational education and experiential learning including the relevant experience and proficiency/professional levels acquired it becomes imperative to establish and formalize a national credit accumulation and transfer system which will enable such integrations while ensuring equivalence and mobility of students and learners within and between the General and vocational education systems.

The detailed National Education Policy 2020 is available at

https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

2.2. NATIONAL CREDIT FRAMEWORK- ENABLING EFFECTIVE TRANSFORMATION IN EDUCATION & SKILL ECOSYSTEM THROUGH IMPLEMENTATION OF NEP 2020

The National Education Policy (NEP) 2020, is the first education policy of the 21st century and aims to address the many growing developmental imperatives of our country. The NEP proposes the revision and revamping of all aspects of the education structure, including its regulation and governance, to create a new system that is aligned with the aspirational goals of 21st century education, including Sustainable Development Goal (SDG), while building upon India's heritage, traditions and value systems. The National Education Policy lays particular emphasis on the development of the creative potential of each individual. It is based on the principle that education must develop not only cognitive capacities - the 'foundational capacities' of literacy & numeracy and 'higher-order' cognitive capacities, such as critical thinking and problem solving but also social, ethical, and emotional capacities and dispositions. Built on the foundational pillars of Access, Equity, Quality, Affordability and Accountability, the policy aims to transform India into a vibrant knowledge society and global knowledge superpower by making both school and college education more holistic, flexible and multidisciplinary.

The NEP 2020 proposes reduction in curriculum/content in all subjects to its core essentials, to make space for critical thinking and more holistic, inquiry-based, discovery-based, discussion-based, and analysis based learning. The mandated content will focus on key concepts, ideas, applications, and problem solving. Teaching and learning will be conducted in a more interactive manner; questions will be encouraged, and classroom sessions will regularly contain more fun, creative, collaborative, and exploratory activities for students for deeper and more Experiential learning including relevant experience and proficiency/ professional levels acquired after the individual takes up self/job employment on completion of his or her education/skill training. In all stages of education, Experiential learning including relevant experience and proficiency/ professional levels acquired will be adopted, including hands-on learning, arts-integrated and sports-integrated education, story- telling-based pedagogy, among others, as standard pedagogy within each subject, and with explorations of relations among different subjects. To close the gap in achievement of learning outcomes, classroom transactions will shift, towards competency-based learning and education.

The NEP 2020 while highlighting the importance of flexible learning emphasizes on imaginative and flexible curricular structures which will enable creative combinations of disciplines for study and offer multiple entry and multiple exit (ME-ME) points and thus, enables removing of the current system of rigid boundaries. These would create new possibilities for students to choose and learn the subject(s) of their choice, while changing the educational institute as per their preference, convenience, or necessity'. NEP shall also help to achieve universal participation in educational institutes by carefully tracking students, as well as their learning levels, in order to ensure that they (a) are enrolled in and attending educational institutes, and (b) have suitable opportunities to catch up and re-enter educational institutes in case they have fallen behind or dropped out.

NEP 2020 highlights the need for multidisciplinary study from the secondary education stage. It lays particular emphasis on empowering students through flexibility in course choices so that the learners could choose their learning trajectories and programmes, and thereby choose their paths in life according to their talents and interests. The NEP 2020 also proposes to establish an 'Academic Bank of Credit' (ABC) which could digitally store the academic credits earned from recognized institutions so that the degrees can be awarded considering credits earned.

Given the premise, a well-defined and robust credit framework will enable seamless integration and coordination across institutions and all stages of education and skilling. Such a framework will enable broad based, multi-disciplinary/ inter-disciplinary, holistic education with flexible curricula, creative combinations of subjects, providing for multiple entry and exit points with appropriate certification and thereby will enable achieving the objectives as are envisioned in NEP.

2.3. ADVANTAGES OF NATIONAL CREDIT FRAMEWORK

2.3.1. Removal of Hard Separations between Educational Streams, General and Vocational education, Curricular & other activities

NEP 2020 highlights that, holistic development and a wide choice of subjects and courses should be the new distinguishing feature of secondary school education and there should be no hard separation among 'curricular', 'extracurricular', or 'co-curricular' among 'arts', 'humanities', commerce and 'sciences' etc, or between 'vocational' or 'academic' streams.

Learning is a multi-dimensional process that takes into account cognitive, emotional, social and physical learning as well. To ensure holistic learning of students, it is desirable that they are allowed to choose subjects according to their interests irrespective of the nature of course (academic or vocational). The educational institutes are meant to prepare students for handling life challenges and upheavals, and it is only through this flexibility of choice with a range of elective subjects available that will help learner/students make more informed career choices. The proposed credit system will take into account the learning hours put in by a learner irrespective of the stream of education (general and vocational).

2.3.1. Establishing Equivalence Between General and Vocational education & training/ skilling

Equivalency, in general, determines the level of education and number of years of study completed along with the upward progression in accordance with candidate's field of study. By equivalence, it is understood that the evaluation of a curriculum followed by the holder of the educational award (certificate/ diploma etc.) and its compatibility with the national education system in terms of the learning outcomes and the gained competencies are aligned to other curriculums and therefore considered at parity.

In order to establish such equivalence, it is important that each program within general education and vocational education and training/ skilling has a measurable criterion including the outcomes and competencies backed by proper assessment which is possible only through a robust credit framework. Such framework should enable assignment of a measurable criteria for both general education and vocational education and training/ skilling with due emphasis on the content of the study, duration and achievement of requisite competencies. The credit framework shall also allow for identifying measurable outcomes through a well-defined assessment process in order to bring equivalence of a vocational education and skilling program with general education programs with or without any additional academic learning. It will facilitate interoperability, mobility, and transfer of students between schools, boards, colleges and universities, empowering greater choice and means for students to pursue knowledge and skills of their interests, aptitude and circumstances.

2.3.2. Mobility Between and Within General and Vocational Education & Training/ Skilling

One of the major advantages of the National Credit Framework will be to enable establishment of eligibility criteria for various qualifications being implemented both in general education and

vocational education and training/ skilling in terms of accumulated credit points at certain credit levels. These credit points can be used to determine the eligibility for taking admission in various programs at multiple levels, subject to fulfilment of the broad principles laid down under National Credit Framework (NCrF)and the acceptance of the credit points by the concerned agencies. This mobility will be an outcome of the equivalence that is established between general and vocational education and training/ skilling based on the criterion laid by NCrF without the need for further certification of equivalence of academic qualifications of students.

2.3.3. Enabling Provisions for Lifelong Learning Through Multiple Entry and Multiple Exit (ME-ME) Options

Flexible learning is important to choose one's learning pathway leading to the award of certificate, diploma, and degree. There are occasions when learners pursue alternative schooling, home-schooling, online schooling or have to give up their education mid-way for various reasons. The national credit framework will act as an enabler in this regard and regulators shall be required to define the entry and exit criteria of the programs being offered by them. This would also help in fragmenting an entire program into smaller units with due acknowledgement being given to each unit of learning.

The credit transfer mechanism will also enable a student to enter, exit and re-enter the educational ecosystem both general and vocational at any point of time. In such cases due weightage is proposed to be given to work experience gained or any other training undertaken by the learner, in offline or online mode, subject to assessment. The proposed equivalence by virtue of this national credit framework enables a learner (whether from a general education background or from a vocational education and training/ skilling background) to accumulate necessary credits that will allow him/her to re-enter the mainstream education. The ME-ME is possible when the entire education ecosystem especially in case of higher education is divided into yearly independent modules.

The multiple entry and exit option or the lifelong learning will serve the following objectives:

i. Remove rigid boundaries and facilitate new possibilities for learners.

ii. Recognises no hard separation between different areas of learning, i.e. arts, commerce, humanities and sciences, vocational and academic streams, curricular and extra-curricular for the purpose of assignment of credits and credit levels.

iii. Offer creative combinations of disciplines of study that would enable multiple entry and exit points.

iv. Offer flexibility in curriculum and novel course options to students in addition to discipline specific specializations.

v. Offers flexibility in choice of courses to the students for choosing their own learning trajectories and programmes, and thereby choose their paths in life with appropriate career choice, including option for mid-way course corrections, according to their talents and interests.

vi. Creditization of all types of learning subject to assessment. Also enables creditization of experiential learning including relevant experience and proficiency/ professional levels acquired, based on the weightage for relevant experience and proficiency/ professional levels achieved, subject to assessment.

vii. Enable credit accumulation, storage transfer and redemption along with provision of assessment/ evaluation.

viii. Validation of non-formal and informal learning (like alternative/home/open/ online/distance learning) for the award of a certificates, diploma, degree and encourage lifelong learning; and

ix. Facilitate redemption /encashing credits earned against a certificate diploma or degree when the learner resumes his/her programmes of study.

2.3.4. Integration and Intermingling of Education, Skilling and Work Experience

The proposed credit framework provides for a comprehensive and practical approach to include all dimensions learning i.e. academic education, skilling and experiential learning including relevant experience and professional levels acquired. Such seamless mixing of Education, Skilling and Work Experience would enable a student/learner to take full benefit of the option of Multiple Entry-Multiple Exit wherein, the student exits an academic program, undertakes a skill based training followed by a relevant work experience, acquires corresponding credits and then returns back for further education/ higher education.

This also enables a student/learner to get benefits of all kinds of learning whether acquired from academic education, vocational education & training/skilling or through Experiential learning including relevant experience and proficiency/ professional levels acquired by engaging in a workplace.

2.3.5. Enabling creditization of learning for students with varying learning capacities

This framework will enable creditization of learners with varying learning abilities including the educational acceleration of gifted students which is when students move through traditional curriculum at rates faster than normal pace and includes grade/class skipping, early entrance to school

or college and/ or subject based acceleration and also students with learning disabilities subject to achieving the desired learning outcomes prescribed at a particular level determined by successful assessments.

Such an approach may also be extended, and special provisions must be enabled for Hackathons, Olympiads and students showing exemplary performance in Sports, Fine Arts and other similar activities. Within the broad principles of NCrF, the regulator may define the specific modalities for catering to such students, subject to defining special assessment criteria.

The NCrF, therefore, also envisions to be a competency framework which shall, in addition to the established processes of formal education and certification, shall also enable the gifted learners with exceptional learning abilities/ capabilities/ competencies to move up the education and skilling ladder without going through the prescribed established formal education / learning hours by assessing the **learning outcomes for assignment of credits and the credit levels**. However, such **specialized assessment methods have to be very strict, objective, above board and adhere to high standard** so as to keep the credibility of the NCrF intact.

2.3.6. Enables provisions for Recognition of Prior Learning (RPL)

The NCrF has enabled provision for **Recognition of Prior Learning thereby creditizing the existing** knowledge and skills **o**f the workforce acquired through various **formal, non-formal or traditional of any other methods. This would also take into account the learning acquired** through family inheritance, work experience, cluster-based learning and creditizing the same, **thereby allowing them progression and mobility into mainstream education.**

3. SECTION 3: DEVELOPING THE NATIONAL CREDIT FRAMEWORK

3.1. FORMULATION OF THE HIGHLEVEL COMMITTEE (HLC)

In order to fulfil the vision of NEP, 2020 and to facilitate its effective implementation, it was felt that it is important to formulate a comprehensive framework which caters to both General Education and Vocational Education and Training/ Skilling and also seamlessly aligns and integrates them. This was further emphasized upon by the Hon'ble Minister MSDE and MoE who suggested that the credit frameworks made in silos will not be conducive to address the challenges existing in the entire educational and skilling ecosystem and hence it is imperative that a national credit framework be developed across academics (school education, higher education) and vocational education & skilling.

Accordingly, a High-Level Committee, with well-defined ToRs was constituted by MSDE vide Order dated 18th November 2021, to develop a National Credit Accumulation and Transfer Framework for both General and Vocational Education and Training/ skilling. This framework should enable integration of academic and vocational domains of learning and ensure flexibility and mobility between the two. The Committee had representation from heads/ senior officials of Ministry of Education (including school and higher education), UGC, AICTE, NCERT, NIOS, CBSE, Ministry of Skill Development and Entrepreneurship (MSDE), NCVET and DGT. The committee was to be Chaired by Dr. Nirmaljeet Singh Kalsi, IAS Retd., Chairperson, National Council of Vocational Education and Training (NCVET).

The ToRs of the Committee and scope is also detailed below:

To formulate a framework for allocation of credits to every component of learning i.e. theory, practical, extracurricular, and experiential for general as well as vocational education and training/ skilling, to facilitate mobility within VET and from VET to general education. This framework is envisaged to cater to the following specific objectives:

i. To define credit, components of credit and corresponding credit value

ii. To devise a formula for calculating the credit/s for School Education, Higher Education, and VET.

iii. To formulate a framework for credit accumulation for School Education, Higher Education, and VET.

iv. To formulate a framework for credit transfer for VET & School Education, and vice-versa; and VET & Higher Education, and vice-versa.

v. Establish Academic Equivalence:

a. Between General Education and Vocational (both for School and Higher Education)

b. Within Vocational education and training/ skilling

vi. Identify the mechanism for accumulation, storage, and redemption of credit through Credit Bank

The HLC submitted its final Report on draft framework to Hon'ble Minister, Education and SDE and the same was launched by the Hon'ble Minister for public consultation from 19th October to 30th November 2022. Based on the observation/feedback/comments received the suitable modifications have been carried out for finalizing the framework.

3.2. THE NATIONAL CREDIT FRAMEWORK, ONE SINGLE META FRAMEWORK; THE BASIC PRINCIPLES

The National Credit Framework (NCrF) is a comprehensive framework encompassing elementary, school, higher, and vocational education & training, integrating the learning on the multiple axis i.e. academics, vocational skills and Experiential learning including relevant experience and proficiency/ professional levels acquired which has been jointly developed by UGC, AICTE, NCVET, NIOS, CBSE, NCERT, Ministry of Education, DGT, and Ministry of Skill Development.

The NCrF has been formulated on the existing regulations /guidelines of UGC, AICTE, NCVET, NCERT & NIOS and existing qualification frameworks for higher education, vocational education and school education so that the options for Multiple Entry-Multiple Exit (ME-ME) are accessible and applicable across the higher education, school education and vocational education.

The National Higher Education Qualifications Framework (NHEQF) has been formulated by UGC to achieve the objectives of NEP with detailed level descriptors and learning outcomes. The NHEQF and National Skills Qualifications Framework (NSQF) are in sync with each other to ease the integration of vocational education into higher education. The National Credit Framework (NCrF) seamlessly integrates higher education and vocational education and is totally aligned with the NHEQF and NSQF while also integrating school education [National Curriculum Framework (NCF)/ National School Education Qualifications Framework (NSEQF)] in continuum. Till now there was no credit framework in place for school education.

The National Credit Framework (NCrF) is one single meta framework which enables seamless integration and coordination across regulators and institutions to enable broad based, multi-

disciplinary, holistic education across sciences, social sciences, arts, humanities and sports, allows imaginative and flexible curricular structures, enables creative combinations of disciplines and integration of vocational education & skilling into academics with multiple entry and exit options.

3.2.1. National Credit Framework (NCrF) to be One Single Meta Framework

National Credit Framework (NCrF) is envisaged as one single credit framework encompassing school education, higher education, vocational education & training/ skilling and experiential learning based on proficiency/professional levels achieved. **The National Credit Framework (NCrF)** is the **Meta Framework for creditization of all types of learning and** integrating credits earned from academics, vocational education & training/ skilling and experiential learning including work experience and proficiency/professional levels achieved. **This** is the **enabling Framework,** laying down and defining the basic principles for operationalisation of credit system and **achieving the objectives of NEP 2020.**

It shall also cater to the needs of all HEIs/ institutions including the autonomous institutions and institutes of National Importance including IITs, IIMs, IIITs, IISERs, and NITs as these institutions may also take the advantage of NCrF. Moreover, for creditization and integration of all learning, the National Credit Framework (NCrF) shall encompass the qualification frameworks for higher education, vocational & skill education and school education, namely National Higher Education Qualification Framework (NHEQF), National Skills Qualification Framework (NSQF) and National Curriculum Framework (NCF)/ National School Education Qualification Framework (NSEQF) respectively. A qualifications framework is a formalized structure in which learning level descriptors and qualifications are used to define and understand learning outcomes.

Thus, there would be only one credit framework for higher education, school education and skill education, namely the National Credit Framework (NCrF) which would be one single meta framework. It integrates and provides for creditization of learning in dimensions of academics, skilling and Experiential learning including relevant experience & proficiency/ professional levels acquired. NCrF would be operationalised through Academic Bank of Credits (ABC). The qualification frameworks for school, higher education and skills would be embedded and aligned with NCrF.

3.2.2. National Credit Framework- The Basic Principles

The basic principles and provisions of National Credit Framework (NCrF) would apply to all the qualification frameworks (NHEQF and NSQF are already aligned with NCrF), particularly with respect to the following aspects:

i. **Creditization of all types of learnings**; Assignments of Credit levels for all learnings for seamless integration,

ii. **Integration of learning in all dimensions of academics and skilling along with experiential learning including relevant experience and proficiency/ professional levels acquired**.

iii. **Assignment of one single Credit level** i.e. NCrF Credits Levels applicable **across** all qualification frameworks; no other separate Credit levels to be assigned by any stakeholders.

iv. **Assignment, Accumulation, Storage, Transfer & Redemption of Credit**s- Assignment of credits to be independent of the streams, subjects or any learning, of course subject to assessment.

v. **Assignment of Credits for online, digital and blended learning.**

vi. Operationalisation of NCrF through **Academic Bank of Credits (ABC)** encompassing school education higher education and vocational / skill education.

vii. The total **Notional Learning Hours** for assignment of credits to be uniform across school education, higher education and vocational education & training/skilling.

viii. The **assessment is mandatory for earning credits.**

ix. **Equivalence of academic and vocational education & skilling programmes.**

x. Multiple entry and multiple exit (ME-ME) options; ensuring **horizontal and vertical mobility.**

xi. Provision of **multi-disciplinary and holistic education** across sciences, social sciences, arts, humanities and sports.

xii. **No hard separation between different areas of learning**, i.e. arts, commerce, humanities and sciences etc., vocational and academic streams, curricular and extra-curricular for the purpose of assignment of credits and credit levels.

xiii. Allow **imaginative and flexible curricular structures**, enables **creative combinations of disciplines.**

xiv. Provision for **integration of vocational education & skilling into academic education** at all levels.

xv. **Empowerment of students** for **flexibility** in choice of courses/choosing their **own learning trajectories** and programme. Option for **mid-way course correction**s.

xvi. **Provision for Recognition of Prior Learning, and NCrF credit levels and credit assignment for the same for main streaming the learners who are out of formal education and skilling ecosystem. Provision for RPL with or without upskilling**

xvii. Caters to **creditization, subject to assessments,** for creating opportunities, progression pathways for **other learnings not creditized earlier** for award of a certificate, diploma, degree and **encourage lifelong learning:**

a. **Informal learning** (takes place outside schools/ colleges and arises from learner's involvement in activities that are not undertaken with a learning purpose in mind.)

b. **Non-formal learning** (takes place outside formal learning environments but within organizational framework. A conscious decision & intentional effort by learner to master a particular activity, skill or area of knowledge.).

c. **Learning through any means including non-government organizations (NGOs)** (like informal slum schools, alternative/ home/ open/ online/ distance learning and in some cases self-study/self-learning through open schooling. This could be formal, informal or non-formal.

xviii. Supports **educational acceleration for students with gifted learning abilities; also supports the same level and number of credits for Divyangs, even though it may require higher learning hours for achieving the same outcome levels for Divyangs.**

xix. Supports provision for **hackathons, and subject Olympiads** etc. for exceptional children/ students/ learners/individuals through learning outcome based special assessments.

xx. Provides scope for creditizing **national/ international achievers** in any fields including but not limited to **Sports, Indian Knowledge System, Music, Heritage and Traditional Skills, Performing & Fine Arts, Master Craftsmen,** etc

The NCrF therefore would integrate the credits earned through learning from the different qualification frameworks i.e. higher education including technical education (NHEQF), vocational

education, training & skilling (NSQF) and for school education NCF/ NSEQF. Therefore, these Qualification Frameworks would be necessary to be maintained, inter-alia, for the **following purposes** for implementation of the intent of National Education Policy (NEP) 2020 as also for the operationalisation of the National Credit Framework (NCrF) by the school education, higher education and vocational education & skilling:

a. The curricular structure for accreditation/ approval of qualifications.

b. Planning and delivery of education/ skilling programmes.

c. Developing, designing of curriculum, courses, qualifications.

d. Developing syllabus, content, pedagogy, teaching and learning resources.

e. Information about the broad equivalence of qualifications.

f. Defining Learning outcomes, which the learner must possess, (regardless of whether they were acquired through formal, non-formal or informal learning).

g. The level descriptors for school education, higher education and vocational education & skilling. These levels are defined in terms of learning outcomes.

h. Defining entry criteria and academic equivalence.

i. Nomenclature and award of certificates, diplomas and degrees.

The National Credit Framework (NCrF) shall act as a **broad enabling framework** for all regulatory organizations (UGC, AICTE, NCVET, NCERT etc.), CBSE, NIOS, State Open Schooling, State School Boards, State Technical Education Boards, etc and autonomous institutions, including Universities, Institutes of National Importance (INIs), who may, wherever required **and as applicable. Notify their detailed implementation guidelines** with respect to following major provisions within the contours of this Framework. Thus, the National Credit Framework (NCrF) empowers institutions and enables them with the required flexibility for catering to their specific academic requirements for creating imaginative and **flexible curricular structures, creative combinations of disciplines** and other special needs**.**

3.2.3. Credit and Credit Points

'Credit' is recognition that a learner has completed a prior course of learning, corresponding to a qualification at a given level. For each such prior qualification, the student would have put in a certain

volume of institutional or workplace learning, and the more complex a qualification, the greater the volume of learning that would have gone into it. Credits quantify learning outcomes that are subject achieving the prescribed learning outcomes to valid, reliable methods of assessment.

The **credit points** will give the learners, employers, and institutions a mechanism for describing and comparing the learning outcomes achieved. The credit points can be calculated as credits attained multiplied with the credit level.

3.2.4. Total Notional Learning Hours in a Year for Assignment of Credits

In line with the philosophy of NEP 2020, which emphasizes on considering any kind of learning as part of the overall learning and doing away with the distinction between curricular, co-curricular, and extra-curricular, it was felt that the overall notional learning hours across the academic classes including pre-school, school and higher education should be aligned. This would lead to consistency and standardization in the entire education and vocational ecosystem, mainstreaming both formal and informal education system and also smoothen the process of implementation of the proposed credit framework.

Accordingly, under the National Credit Framework (NCrF), the total Notional Learning Hours for assignment of credits across school education, higher education and vocational education & training/skilling have been agreed to be 1200 hrs per year (except for pre-school up to grade 5th wherein the learning hours range from 800 to 1000 hours) for which the students shall be awarded 40 Credits.

Thus, 20 Credits shall be awarded for a six-months semester with 600 Notional Learning Hours. Assignment of credits is independent of the streams, subjects or any learning and is subject to achieving the prescribed learning outcomes at a particular NCrF credit level posts successful assessment. Students also have the flexibility to take 1 courses/ programs/subjects/projects beyond 40 credits (within the curricular design) to get additional credits. For the purpose of calculations under the National Credit Framework (NCrF), in general, **30 notional learning hours will be counted as one Credit.**

3.2.5. What Constitutes Learning Hours - Components of Learning

NCrF recognises no hard separation between different areas/streams of learning, i.e., arts, commerce and sciences, vocational and academic streams, or type of learning i.e. curricular and extra-curricular for the purpose of assignment of credits and credit levels. Accordingly, the learning shall not be limited to only the instructional hours but also encompass all the other activities in the educational institutions, earlier categorised as curricular, co-curricular, and extra-curricular. In the true spirit of National Education Policy 2020, the total outcome based learning hours for credits shall, subject to assessment, include:

i. Classroom teaching/ learning hours/ tutorials

ii. Lab work/ practical/ innovation labs/ projects/ incubation labs

iii. Yearly and half-yearly examinations/ class tests/ quiz/ other assessments including formative assessments

a. Activities as part of the curricular structure leading to experiential learning like relevant experience and proficiency/ professional levels, Performing arts/ fine arts, music, handicraft, traditional, heritage work,

b. Debate and Discussion/ Essay Writing / Recitation/Story Writing etc.

c. Celebration of festivals in institutes, music performance, Drama etc.

d. Self-defence classes, value education classes, Career Counselling sessions etc. Other Contests/ Events/ Competitions like Hackathons & Olympiads etc.

iv. Sports/ games / physical activity / yoga

v. Life skills based education like employment skills, basic operational skills like learning to fix a bulb, basic carpentry, classes on morals/etiquettes, constitutional values, environmental sensitivity etc.

vi. Social/ community work (like adult education, teaching in NGOs or Out of school students, environment related, gender sensitization), NCC/ shramdan (School cleaning, building, decoration)

vii. Bag less days, field visits organised by the institution

viii. vocational education/ training, skilling, minor/ major project work, assignments

ix. Field visits/ Projects/ Industry attachment by institutions

x. Internship and apprenticeship hours, on the job training (OJT), and experiential learning including relevant experience and proficiency/ professional levels acquired

xi. Programs offered through blended/ online/ digital learning

xii. Self-study/ Home assignments (only for open schooling, out of school students)

xiii. Any other type of learning as may be notified by the regulators concerned

The consideration and formulation of bouquet of programs/ subjects and activities will be done by the concerned regulator/ autonomous institution / board. They may also prescribe the learning outcomes for every NCrF level/ program which are aligned with the overall national credit framework to enable effective operationalization of the credit framework. Such an approach would also close the gap in achievement of learning outcomes, shifting the classroom education towards competency and learning outcome-based learning and education.

Thus, under the National Credit Framework (NCrF) every learning can be creditized subject to achieving the prescribed learning outcomes is determined by successful assessment. For earning credits, the following shall be applicable:

i. The course/ qualification should be NSQF/ NHEQF aligned and approved with a defined NCrF level, clearly indicating the desired outcomes expected.

ii. Also, the learning outcome shall be assessed after completing the course/ qualification for assignment of credits.

iii. The basis of assessing credits related to sports, fine arts etc. shall be defined and determined by the concerned regulator/ school board.

iv. It will be under the purview of respective regulator/ institution to determine/ prescribe the content/ curriculum of a program The curriculum must align with principles as defined in NEP including life skills such as communication, cooperation, teamwork, etc.

A snapshot of learning hours across grades (from pre-school to Ph.D.) is given in table below.

Table 2: Learning hours across academic classes

S.No.	Stakeholders of Education, Higher Education, Technical Education, and Vocational education and training/ skilling System	Total Notional Learning Hours in/ by the Institution per year*	Remarks
1	School Education: Foundational stage (5 Years) (3 years of Anganwadi/ pre-school/ Balvatika) (Ages 3-6) + 2 Years (Class 1 & 2) (Ages 6-8)	800	
2	School Education: Preparatory Stage: 3 Years, (Class 3 to 5) (Age 8-11)	1000	

S.No.	Stakeholders of Education, Higher Education, Technical Education, and Vocational education and training/ skilling System	Total Notional Learning Hours in/ by the Institution per year*	Remarks
3	School Education: Middle Stage: 3 Years, (Class 6 to 8)(Age 11-14)	1200	1000 Hours of Educational Learning + 200 Hours of learning through other activities
4	School Education: Secondary Stage: 4 Years, (Class 9 to 12), (Age 14-18)	1200	1080 Hours of Educational Learning + 120 Hours of learning through other activities
5	NIOS: 8th Grade/ 10th Grade/ 12th Grade (with a gap of 2 years between each)	1200	8th/ 10th or 12th certificate from NIOS/ School Board
6	DGT: 1-Year ITI after 8th Plus NIOS	1200+ 240 hrs (NIOS**/ STT***) +150 hr of project	NTC + 9th Class certificate from NIOS/ School Board
7	DGT: 2-Years ITI After 8th grade plus NIOS or 1-Year ITI plus 1-Year NAC after 8th plus NIOS	1200+ 240 hrs (NIOS/ STT) +150 hr of project	NTC + 10th Class certificate from NIOS/ School Board
8	DGT: 1-Year ITI after 10th Plus NIOS	1200+ 240 hrs (NIOS/ STT) +150 hr of project	NTC + 11th Class certificate from NIOS/ School Board
9	DGT: 2-Years ITI After 10th plus NIOS or 1-Year ITI plus 1-Year NAC After 10th plus NIOS	1200+ 240 hrs (NIOS/ STT) +150 hr of project	NTC + 12th Class certificate from NIOS/ School Board
10	AICTE: 3 Years Diploma after 10th	1200	This does not include self-study hours but includes industry attachments/ internships
11	DGT: 1-Year to 2-Year ITI after 12th	1200	This does not include self-study hours but includes industry attachments/ internships

S.No.	Stakeholders of Education, Higher Education, Technical Education, and Vocational education and training/ skilling System	Total Notional Learning Hours in/ by the Institution per year*	Remarks
12	AICTE: 2-Years Diploma after 12th	1200	This does not include self-study hours but includes industry attachments/ internships
13	AICTE: 3-Years Bachelor's Degree in Vocation (B.Voc) after 12th	1200	This does not include self-study hours but includes industry attachments/ internships
14	AICTE: 4-Years Bachelor's degree in Engineering/ Technology after 12th	1200	This does not include self-study hours but includes industry attachments/ internships
15	AICTE: - Year Post Graduation Diploma after Bachelor's degree	1200	This does not include self-study hours but includes industry attachments/ internships
16	AICTE: 2-Years Master's Degree after Bachelor's degree	1200	This does not include self-study hours but includes industry attachments/ internships
17	UGC: 1-Year Undergraduate Certificate after 12th	1200	This does not include self-study hours but includes industry attachments/ internships
18	UGC: 2-Years Undergraduate Diploma after 12th	1200	This does not include self-study hours but includes industry attachments/ internships
19	UGC: 3-Yyears Bachelor's degree after 12th	1200	This does not include self-study hours but includes industry attachments/ internships
20	UGC: 4-year UG with Honours / Honours with Research, after 12th	1200	This does not include self-study hours but includes industry attachments/ internships
21	UGC: 1-Year Post-Graduate Diploma after 3-years Bachelor's degree	1200	This does not include self-study hours but includes industry attachments/ internships

S.No.	Stakeholders of Education, Higher Education, Technical Education, and Vocational education and training/ skilling System	Total Notional Learning Hours in/ by the Institution per year*	Remarks
22	UGC: 2-Years Master's Degree after 3-years Bachelor's degree OR 1-Years Master's Degree 4-year UG with Honours / Honours with Research	1200	This does not include self-study hours but includes industry attachments/ internships
23	UGC: Doctoral program - Ph.D. (3 to 5 Years) after Master's degree	1200	-

** These Hours will not include the self-study Hours except in case of except in the case of distance education, Rome-schooling, alternative schooling, online education and National/State open schooling/where it is part of the overall learning Hour*

*** NIOS is National Institute of Open Schooling. In NIOS, self-study forms a major component for a learner as the study material in ODL system specifically of NIOS is called Self Learning Material (SLM) which are quite exhaustive in content and not Textbook. The face to face classroom teaching is limited to Personal Contact Programme (PCPs) which are conducted during weekends or on Holidays in order to facilitate learners from various heterogeneous group having understanding issues/doubts during their self-learning/study. In case of NIOS, the 1200 Hours per year is assigned for self-study +PCP +Assignments +Internal +Theory +Practical +Portfolio +projects +Internship.*

**** STT is Short Term Vocational education and training/ skilling*

3.2.6. NCrF Credit Levels

In order to align with the international best practices being followed with respect to assigning credit levels, the NCrF has proposed that the maximum levels within this framework shall uniformly be up to level 8. The assignment of Credit levels under NCrF will be based on the cumulative numbers of years of learning with assessment and is explained below:

i. The credit level that can be attained after completion of school education i.e. grade 5th will be level 1, grade 8th will be level 2, grade 10th will be level 3 and grade 12th will be level 4.

ii. The higher education shall be from credit levels of 4.5 and to level 8.

iii. For the Vocational Education, Training and Skilling, the NCrF credit levels are from level 1 to 8 wherein the level 1 is of lowest level of competence and complexity while level 8 indicates highest level of competence and complexity.

The level descriptors prescribed for a NCrF credit levels will be defined for every qualification framework i.e. National Higher Education Qualification Framework (NHEQF), National Skills Qualification Framework (NSQF) and National Curricular Framework (NCF).

These descriptors may describe the knowledge, skills and outcome based learning expected to be attained by a student/learner at various levels in the qualification framework. The learning outcomes could also be specific to disciplinary areas as Generic learning outcomes.
Example:

i. In case of National Higher Education Qualification Framework (NHEQF), the Descriptor includes element of -

   a. Knowledge and understanding, skills required to perform and accomplish tasks,
   b. Application of knowledge and skills,
   c. Generic learning outcomes,
   d. Constitutional, humanistic, ethical, and moral values; employment- ready skills and entrepreneurship skills and mindset,
   e. Credit requirements, and
   f. Entry requirements for deciding the NCrF level to be assigned.

ii. In case of National Skills Qualification Framework (NSQF), there are 5 level descriptors (revised) namely-

   a. Professional Theoretical Knowledge,
   b. Professional and Technical Skills/ Expertise,
   c. Employment Readiness & Entrepreneurship Skills & Mind-set,
   d. Broad Learning Outcomes, and
   e. Responsibility for deciding the NCrF level to be assigned.
   f. NSQF also prescribes the Entry requirements for NCrF level to be assigned and
   g. Credit earned for each short term / long term skilling.

3.2.7. Notional Hours and Credit Assignment

In accordance with the international best practice and the current recommendations of NHEQF, the framework proposes that the number of credits per year for 1200 learning hours will be 40. Accordingly, every semester will comprise of 20 credits for 600 hours of notional learning hours. Any additional program/ course undertaken by the student/ learner beyond the 1200 learning hours or

beyond the purview of the course syllabus, shall be considered for additional credits that can be earned by the student/ learner. Therefore, the minimum credits that a student/learner can earn in a year shall be 40. However, in case of multiple exit options, the student may require undertaking additional exit module over and above the 40 credits of learning undertaken, as will be prescribed by the concerned regulator.

E.g. A student clearing the assessment of 1st year UG programs and pursuing regular education, moves to 2nd year UG will be awarded 40 credits for 1st year of UG education.

E.g. A student desirous of exiting after 1st year of Graduation (UG program) will require to undertake an exit module of 4 credits subject to achieving the prescribed learning outcomes determined by successful assessment before being awarded UG Certificate. The total credits earned by this student/learner in this case will 44.

The NCrF provides for basic guidelines on total learning hours in a year or part thereof and credits to be allocated based on those learning hours. The assignment of credits for learning hours for theory, practical and experiential learning including relevant experience and proficiency/ professional levels acquired for calculation of one credit, shall be prescribed by the concerned regulator.

Wherever necessary and if the curriculum so demands, the concerned regulator/ autonomous institution may consider having more than 40 credits for a particular program. However, the minimum credits for any program against 1200 hours of learning in a year will be 40.

3.2.8. Credits Assignment for Additional Learning Hours

Any additional program/ course undertaken by the student/ learner beyond the prescribed 1200 learning hours or beyond the purview of the course syllabus, shall be considered for assignment of additional credits that can be earned by the student/ learner. Such programs could include academic subjects, vocational courses, industry based trainings etc. run either directly by the institution, through the industry/ organization or any other. Hence depending on the interest, talent and capability, a student may earn credits beyond the ceiling of 40 subject to achieving prescribed learning outcomes determined by successful assessment. This provision will enable the student to undertake the dual degree/ dual Qualification programs as notified by UGC/ permitted by NCVET and allow students to take additional subjects in case of school education. This shall also encourage and provide for other School Boards / Regulatory Bodies to offer students further flexibility, mobility and opportunities including ME-ME and establishing eligibility for further progression for various educational programs.

3.2.9. Assessment Bands

The credit framework is based on the basic principle that **credits are a function of achieving the desired learning outcome/s for a program/ course/training determined by the successful assessment**. No credit can be earned by the student unless the student is assessed for the achievement of the desired competencies and outcome of a program.

In case of academic education for both school and higher education, progression to the next grade is dependent on the assessment of the stage student is in which are the major assessment stages which are mandatory before the student goes to the next step. For e.g., unless a student clears 8th grade, the student cannot appear for 10th grade and unless the student clears 10th, the student cannot appear for 12th exam. Similarly, in case of higher education, for enrolling in a Higher Education Institute (HEI) "Certificate obtained after successful completion of Grade 12 or equivalent state of education" is a must.

The **assessment is thus mandatory for earning credits** for all types of learning and progression. The assessments may include routine/ regular assessment after completion a program/course; assessment for recognition of prior learning; and on demand assessment for special provisions like accelerated and slow learning etc.

A use case of various types of assessments is attached as Annexure II. In addition, assessment is a compulsory after each academic year/ semester/session and also after a skilling course to enable implementation of multiple entry-multiple exit (ME-ME) options, which would normally be available at the end of each academic year or end of a short term or long term skilling course.

This means that the student will be earning credits after every semester/ year/completion of an academic/vocational program which they go through and hence the framework needs to cater to this requirement.

Accordingly, NCrF proposes that the NCrF levels be equated with the assessment/ major assessment stage which will be a mandatory stage for a student/learner to clear. Between two mandatory stages there may be 2-5 levels depending on whether it falls in purview of school or higher education. The clubbing of these levels has been referred to as Assessment bands. The Credits earned for the two courses/ qualifications/ programs or through experiential learning may be accumulated and added if earned in the same assessment band, subject to the guidelines of respective regulators. The regulator may also consider setting up of broad learning outcomes for each level and bands so defined.

Accordingly, the assessment bands so formulated are as indicated in the Table 3.

Table 3: NCrF levels for different academic grades/ Vocational Education & Training/ Skilling* and Assessment Bands

Academic Band/ Hours of Learning per year	Academic Grade/ Levels- School Education & Higher Education	Vocational Education Long Term Training/ Short Term Training (LTT/STT)	National Credit Framework (NCrF) Credit levels	Credits Earned/ year	Credit Points Earned	Assessment Stage and equivalence
Doctoral Degree	Ph.D.	NSQF Level 8 STT	8.0	40	320	
PG degree (1/2 years)/ ME/ M Tech (1200 Hrs./yr)	PG- 2nd (Engg)	NSQF Level 7 STT	7.0	40	280	MTech. 2nd Yr/ Engg PG Degree
	PG – 2nd yr/ PG 1st yr (Engg)	NSQF Level 6.5 STT	6.5	40	260	PG Degree/ M. Voc / M.Sc. (Engg)
4-year UG with honors/ Honors with Research / B.E./ B.Tech. OR 3 year UG (1200 Hrs/yr)	**4-year UG with honors/ Honors with Research /** PG – 1st yr	NSQF Level 6 STT	6.0	40	240	UG- Degree (Hons)/ PG – Diploma/B.Tech/B.E
	UG- 3rd 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- 2nd Year	10th+4-Yr NTC/NAC/CITS, 12th+2-Yr NTC/NAC/CITS, NSQF Level 5 STT	5.0	40	200	UG- Diploma
	UG- 1st 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 Secondary (1200 Hrs/yr)	Class XII	10th+2-Yr NTC/NAC/CITS, NSQF Level 4 STT	4.0	40	160	Class XII (Thru CBSE/ School Boards/ NIOS) Diploma Vocation
	Class XI	10th+1-Yr NTC/NAC/CITS, NSQF Level 3.5 STT	3.5	40	140	Class XI (Thru CBSE/ School Boards/ NIOS) Certificate of Vocation
2 Year- Secondary (1200 Hrs/yr)	Class X	8th+2-Yr NTC/NAC, NSQF Level 3 STT	3.0	40	120	Class X (Thru CBSE/School Boards/ NIOS)
	Class IX	8th+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 School Boards/ NIOS)
	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)		0.1x3	27x3=81	8.1	

3.2.10. Major Dimensions of National Credit Framework

The National Credit Framework encompasses the following main components/ dimensions of learning:

i. Credits earned by virtue of completed academic education
ii. Credits earned by virtue of undergoing vocational education, training/ skill program
iii. Credit points earned by virtue of relevant Experiential learning including relevant experience and proficiency/ professional levels acquired

i. Academic Education - School Education, Higher Education, Professional Education

At present, the school education system follows a system of progression of academic classes that is dependent on a student successfully clearing the requirements of a particular class/ grade to proceed to next. To formulate a comprehensive and holistic credit framework, that also considers the learning acquired during schooling and through informal modes either by home schooling, special schools (Divyangs & others), open schooling or online schooling, it is necessary that a credit system at the school level is also developed.

For higher and professional education, frameworks namely CBCS and SAMVAY (for skill based programs) exist and the education ecosystem has been aligned with these frameworks. These frameworks, however, were not able to fully address the requirements of assigning credits to vocational education and training/ skilling or school education and other forms of learning. The National Credit Framework therefore seeks to cater to all kinds/ types/ forms/ levels of academic education, be it school, higher/ professional or/ and vocational.

ii. Vocational Education and Training/ Skilling

With the emphasis on mainstreaming vocational education and training/ skilling under the National Education Policy 2020, it is important that the skill/vocational programs undertaken by students/learners are also assigned credits. One of the aims of the national credit framework is to creditise vocational education and training/ skilling, thereby, enabling seamless integration of vocational education and training/ skilling with the general education through credit accumulation & transfer mechanism. This will specifically enable students who have to discontinue general education and undertake short-term skilling program(s) for early employment and to enable them to gain credits for vertical and horizontal mobility and further progression.

iii. Relevant Experiential Learning and Proficiency/Professional levels Achieved

One of the most unique, practical & beneficial features of the National Credit Framework is assignment of credits/credit points/ weightage to the experiential learning including relevant

experience and professional levels acquired/ proficiency/ professional levels of a learner/student. Experiential learning is of two types:

a. ***Experiential learning as part of the curricular structure of academic or vocational program. e.g., projects/OJT/internship/industrial attachments etc.***

This could be either within the Program- internship/ summer project undertaken relevant to the program being studied or as a part time employment (not relevant to the program being studied- up to certain NSQF level only). In case where experiential learning is a part of the curricular structure the credits would be calculated and assigned as per basic principles of NCrF i.e., 40 credits for 1200 hours of notional learning.

b. ***Experiential learning as active employment (both wage and self) post completion of an academic or vocational program.***

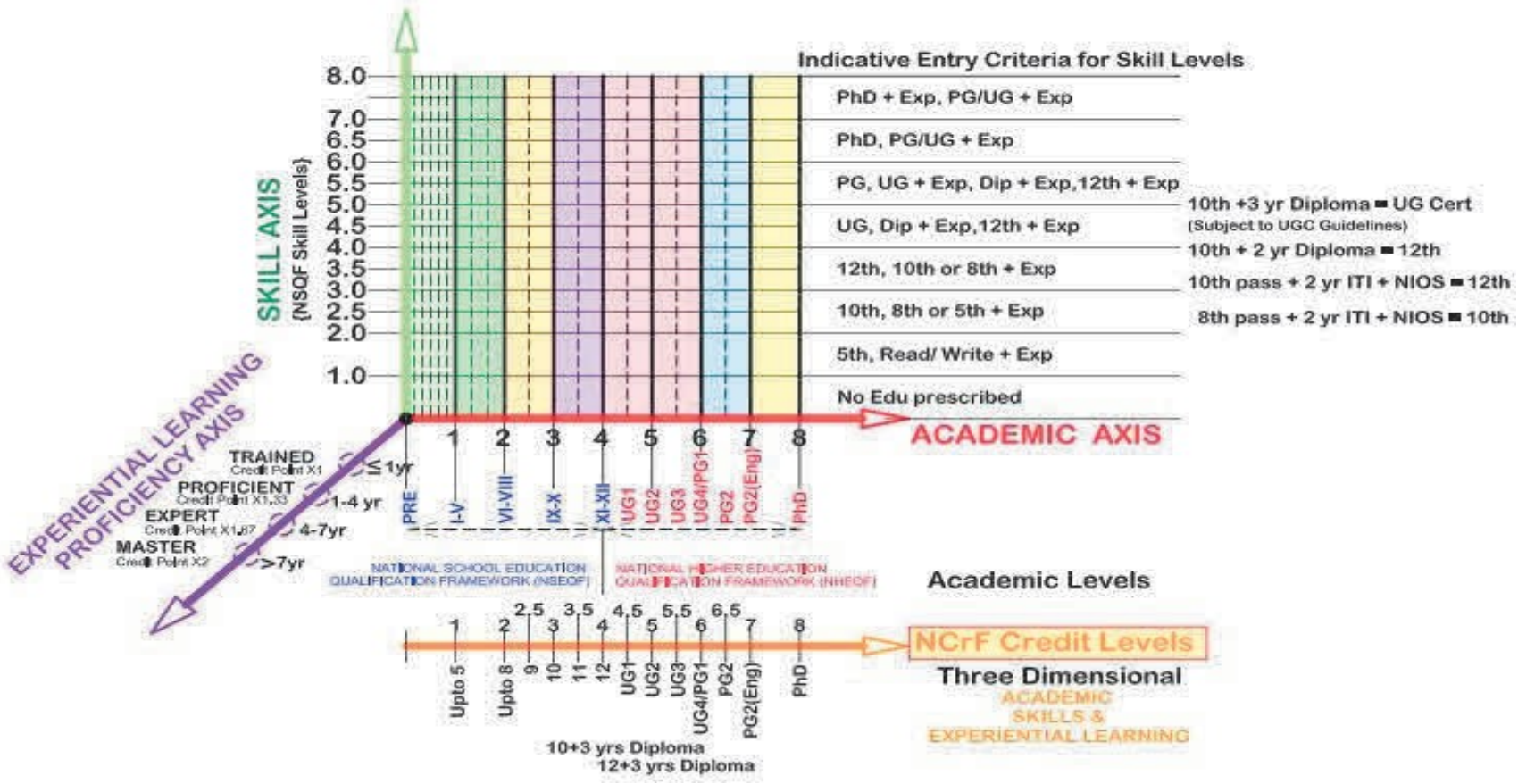
This means that the experience attained by a person after undergoing a particular educational program shall be considered for assignment of credits. This could be either Full or Part time employment after undertaking an academic/ Vocation program

In case where experiential learning is as a part of employment the learner would earn credits as weightage. The maximum credit points earned in this case shall be double of the credit points earned with respect to the qualification/ course completed. The credit earned and assigned by virtue of relevant experience would enable learners to progress in their career through the work hours put in during a job/employment.

Thus, the National Credit Framework (NCrF) provides for Assignment, Accumulation, Storage, Transfer & Redemption of Credits in alignment with the National Higher Education Qualification Framework (NHEQF), National Curriculum Framework (NCF) National School Education Qualifications Framework (NSEQF) and National Skill Qualification Framework (NSQF) which are the comprehensive credit-based Academic & Skill Qualification frameworks.

A diagrammatic view of the dimensions of the credit assignment is in figure I below:

National Credit Framework (NCrF) -The Dimensions of Learning



3.3. ASSIGNMENT OF CREDITS IN NATIONAL CREDIT FRAMEWORK

3.3.1. Mechanism for Assignment of Credits and Calculation of Credit Points

As explained in the previous sections, for every 1200 hours of learning, the students/learners can earn 40 credits and for the purpose of calculation under NCrF, one (1) credit would correspond to thirty (30) notional learning hours.

This assignment of credits shall also factor in the NCrF level at which these credits are earned which are unique and are also considered as weightage factor. This results in the student/learner earning **credit points** which are further accumulated and stored in the ABC for redemption and credit transfer. **These credit points are calculated as Credits earned multiplied by the NCrF level (weightage factor)**. Accordingly, for every year of study or learning undertaken for various NCrF levels, the learner acquires different credit points enabling further accumulation and credit transfer as per the norms prescribed by the concerned regulators/autonomous institutions.

Some examples of how credits points are calculated are given in the example/use case below:

E.G. A 12th pass student earning 40 credits at NCrF level 4 will earn a total of 160 credit points **(40 credits X NCrF level (4) = 160)**

Similarly, a student completing a NSQF level 4 qualification of 450 hours earns 15 credits. The credit points earned by the student after completion and assessment of this qualification would earn a total of 60 credit points.
(15 credits X NCrF level (4) = 60)

3.3.2. Credits Assigned by Virtue of Academic Education

I. School Education

Based on the principles defined in the sections above, the total credits attained by a student who has completed one year of education are 40. These 40 credits are earned on a yearly basis subject to successful completion of the assessment at that level/ class/grade. Currently, National Skills Qualification Framework is totally in sync with the qualification framework being followed at school level and the same may be implemented till such time the National School Education Qualification Framework (proposed for School education) is formulated and notified. School Students engaged in active community service like teaching young's/adults may also be given credits for their work.

The assignment of credits at school level is given in the Table below:

Table4: NCrF levels and credit assignment for school education

S. No	Academic Education Band	School Edu Grade/ Level	Number of Hours of study	Credits for hours / year	Credit Levels as per NCrF	Credit Points Earned *
C-1	C-2	C-3	C-4	C-5	C-7	C-8 (C6 X C7)
	Pre-Primary School		800X3	27x3	**0.1**	8
1	**Primary School(I-V)**	**Class I**	800	27	**0.2**	5
2	Primary School(I-V)	**Class II**	800	27	**0.4**	11
3	Primary School(I-V)	**Class III**	1000	33	**0.6**	20
4	Primary School(I-V)	**Class IV**	1000	33	**0.8**	26
5	Primary School(I-V)	**Class V**	1000	33	**1.0**	33
6	**Middle School(VI-VIII)**	**Class VI**	1200	40	**1.33**	53
7	Middle School(VI-VIII)	**Class VII**	1200	40	**1.67**	67
8	Middle School(VI-VIII)	**Class VIII**	1200	40	**2.0**	80
9	**High School (IX-X)**	**class IX**	1200	40	**2.5**	100
10	High School (IX-X)	**Class X**	1200	40	**3.0**	120
11	**Sr. Sec. School (XI-XII)**	**Class XI**	1200	40	**3.5**	140
12	Sr. Sec. School (XI-XII)	**Class XII**	1200	40	**4.0**	160

*Rounded off to the nearest decimal

II. Higher Education including Technical Education

In case of higher education, all one year programs offered will have notional learning hours of1200 hours with 40 credits. The concerned regulator (UGC and AICTE) may add more programs in the one-year program thereby leading to increased learning hours beyond 1200 notional hours of learning and higher overall credits while ensuring that the broad contours of the National Credit Framework are adhered to.

Additional activities like community-based activities, career counselling, tutorials etc may also be creditized. The regulators/ autonomous institution may consider having baskets of courses/ activities to offer the students along with the flagship programs/ defined curricular programs keeping in view the industry and user organizations.

Accordingly, the assignment of credits with respect to Higher education as prescribed under NHEQF, for all streams including science/ commerce/ arts and Engineering (technical) is as given below:

Table 5: NCrF levels and Credit Assignment in Higher Education

Sr. No	EXAMPLES OF HIGHER EDUCATION QUALIFICATIONS LOCATED WITHIN EACH LEVEL (Including Science/ Arts/ Commerce and Vocational)	TOTAL LEANING HOURS PER YEAR	TOTAL CREDITS PER YEAR	NATIONAL CREDIT FRAMEWORK (NCRF) CREDIT LEVELS	CREDITS POINTS
C-1	C-2	C-3	C-4	C-5	C-6 (C-4 X C-5)
1	**Undergraduate Certificate** Programme duration: first year (first two semesters) of any undergraduate programme	1200	40	4.5	180
2	**Undergraduate Diploma** Programme duration: first two years (first four semesters) of any undergraduate programme.	1200	40	5	200
3	**Bachelor's Degree** Programme duration: three years (Six semesters) of any undergraduate programme.	1200	40	5.5	220
4	**Bachelor's Degree (Honours/ research/ Engineering).** Programme duration: four years (eight semesters) of any undergraduate programme.	1200	40	6	240
5	**Post-Graduate Diploma.** Programme duration: One year (2 semesters) after any bachelor's degree i. PGD after 3-year Bachelor degree/ 2 semesters of the 2-year master's degree programme. ii. PGD after 4-year bachelor degree	1200	40	i. 6 ii. 6.5	i. 240 ii. 260
6	**Master's Degree.** Programme duration: One year (two semesters) after obtaining a Bachelor's degree (Honours/Research).	1200	40	6.5	260
7	**Master's Degree.** Programme duration: two years (four semesters) after obtaining a 3 yr Bachelor's degree;	1200	40	6.5	260
8	**Master's degree;** Programme duration: two years (four semesters) after obtaining a Bachelor's Engineering degree.	1200	40	7.0	280
9	Doctoral degree	1200	40	8.0	320

III. Other Learning Like Online/ Blended/ Open & Distance Learning

The Credit assignment is a function of total hours of learning put in by a student in a year versus total credits available in a year. The learning hours irrespective of the mode of learning (offline, online or blended) shall continue to follow the broad principles specified in previous sections which also form the core of the NCrF. The only exception being the hours may include the self-study hours, as applicable in the case of distance education, home-schooling, special schooling, alternative schooling, and open education.

In case of online programs such as those being offered through MOOC (Massive Open Online Courses), NPTL or Swayam Platform, it is important that these online courses be defined in terms of learning outcomes against an appropriate NCrF level along with indicative mapping with the other academic/ regular programs. Such mapping would be prescribed by the concerned regulator. Creditization of these courses and redemption of such credits against a degree/diploma/certificate will further be defined by universities/autonomous institutions/regulators.

Assignment of Credits for programs being implanted in online or blended mode in academic /vocational education and skilling will enhance the scope of expand the open /distance learning and will promote extensive use of technology in learning & skilling. This would help in overcoming the constraints of physical infrastructure & scalability while enhancing access, equity, and affordability and ensuring quality and accountability. The blended learning option shall also enhance accessibility of learning for out of school students as well as for Divyangs.

3.3.3. Credits Assignment for Vocational Education and Training & Skilling

For the vocational education and training/ skilling ecosystem, with respect to credit assignment, the following shall be applicable:

- Total notional learning hours in a year (for purpose of calculating credits): 1200
- Credits to be allocated in a year with 1200 notional learning hours: 40 (however for each year of learning the number of hours may go up and correspondingly the number of credits will also go up to say 44 or 48)
- Therefore, for the purpose of overall credit calculations number of notional hours leading to one credit unit= 1200/ 40 = 30

The credit assignment for vocational/ skill education as per NSQF levels & credit assignment at different levels is reflected in the Table No. 6.

Table 6: NCrF Levels and Credit Assignment in Vocational Education and Training/ Skilling

NSQF/ NCrF level at Entry	NSQF/ National Credit Framework (NCrF) level attained after VET/ Skill Training (STT/ LTT)	Minimum entry criteria for undergoing Short Term Training (STT) at the given level		Minimum Range of Notional hours of Short-Term Training/ STT (Theory + Practical + OJT) (Notional Hours in Multiple of 30/ 15) subject to assessment	Long Term Training LTT Course viz. Craftsmen Training Scheme (CTS) in Industrial Training Institutes (ITIs), Crafts Instructor Training Scheme (CITS) & National Apprenticeship Certificate (NAC)	Optional Additional requirements for below given Academic Equivalence of the LTT or STT VET & Skilling Qualifications, Courses, or Programs
		Min Education/ Skill Qualifications required	**Minimum Relevant Experience Required ***			
Fresher at Level 0	**Level 1**	◣No formal education prescribed	No Experience required	**150-210 Hours OR** 600 hours of Apprenticeship	No LTT course	**For Grade 3 or Grade 5 certificate** In addition to STT, Foundational literacy and numeracy at NSQF level 1 for Grade 3 and 2 for Grade 5 certificate respectively by Competent Authority**
Fresher or Level 1	**Level 2**	◣No formal education prescribed ◣May require ability to read and write for some qualifications	No Experience required. However, 1 year relevant experience may be desirable for some qualifications	**210-270 Hours OR** 750 hours of apprenticeship	No LTT courses	**For Grade 5 or Grade 8 certificate** In addition to STT Advance Literacy & Numeracy Skills at NSQF level 2 for Grade 5 and 3 for grade 8 certificate by Competent Authority**
		◣Previous relevant Qualification of NSQF Level 1	No Experience required			
Level 2	**Level 2.5**	◣9th Grade pass ◣8th Grade pass and pursuing continuous schooling	No Experience required	**240-300 Hours**	**1-year** Vocational education & Training/ Skilling (NTC/ NAC) after Grade 8 AND (For NTC only) 150 hours of project work	**For Grade 8 or Grade 9 Certificate** In addition to LTTs/STTs & Grade 7 or Grade 8 certificate, the candidate must have accumulated 40 credits*** at level 2.5 and completed a language course of level
		◣5th Grade pass	4 year relevant experience			
		◣Ability to read and write	4 year relevant experience			
		◣Previous relevant Qualification of NSQF Level 2	6 months relevant experience			

		◣Previous relevant Qualification of NSQF Level 1	1.5 year relevant experience		**AND** (For NTC/NAC only) 240 hours of Language course	2/3 for Grade 8/9 by a Competent Authority**. **For NTC/NAC:** In addition to NTC/NAC, successful assessment of language course through NIOS/ DGT/ Competent Authority** for Grade 9 Certificate
Level 2.5	**Level 3**	◣ Grade 10	No Experience required	**270-390 Hours**	**2** years of Vocational education & Training/ Skilling (NTC/ NAC) after Grade 8 **AND** (For NTC only) 150 hours of project work **AND** (For NTC/NAC only) 240 hours of Language course	**For Grade 9 or 10 Certificate** In addition to LTTs/STTs & Grade 8 or Grade 9 certificate, the candidate must have accumulated 40 credits*** at level 3 and completed a language course of level 3 for Grade 9/10 by a Competent Authority**. **For NTC/NAC:** In addition to NTC/NAC, successful assessment of language course through NIOS/ DGT/ Competent Authority** for Grade 10 Certificate
		◣Grade 8 with two years of (NTC/ NAC) after 8th ◣Grade 8 pass and pursuing continuous schooling in regular school with vocational subject	No Experience required			
		◣8th grade pass	2year relevant experience			
		◣5th grade pass	5 year relevant experience			
		◣Previous relevant Qualification of NSQF Level 2	1 year relevant experience			
		◣Previous relevant qualification of NSQF Level 2.5	6 months relevant experience			
Level 3	**Level 3.5**	◣11th Grade pass ◣Completed 1st year of 3-year diploma after 10th ◣10th grade pass and pursuing continuous schooling ◣8th grade pass with two years of NTC	No Experience required	**360-420 Hours**	1 to 2 years of Vocational education & Training/ Skilling (NTC/ NAC) After Grade 10 **AND** (For NTC only) 150 hours of project work	**For Grade 11th Certificate** In addition to LTTs/STTs & Grade 10 certificate, the candidate must have accumulated 40 credits*** at level 3.5 and completed a language course of level 3.5/4 for Grade 11 by a Competent
		plus 1 year NAC/CITS ◣8th grade pass with two years of NTC ◣8th Grade pass with 1 year NTC plus 1 year NAC	One Experience required			

		◣8th Grade pass with 1 year NTC plus 1 year CITS			**AND** (For NTC/NAC only) 240 hours of Language course	Authority**. **For NTC/NAC:** In addition to NTC/NAC, successful assessment of language course through NIOS/ DGT/ Competent Authority** for Grade 11 Certificate
		◣8th Grade pass	3 year relevant experience			
		◣Previous relevant Qualification of NSQF Level 2.5	3 year relevant experience			
		◣Previous relevant Qualification of NSQF Level 3	1.5 year relevant experience			
Level 3.5	**Level 4**	◣12th grade pass	No Experience required	**390-480 Notional Hours of Training**	**2 to 3 years** of Vocational education & Training/ Skilling (NTC/ NAC) (After 10th) **AND** (For NTC only) 150 hours of project work AND (For NTC/NAC only) 240 hours of Language course	**For Grade 12th Certificate** In addition to LTTs/STTs & Grade 11 certificate, the candidate must have accumulated 40 credits*** at level 4 and completed a language course of level 2/3 for Grade 12 by a Competent Authority**. For NTC/NAC: In addition to NTC/NAC, successful assessment of language course through NIOS/ DGT/ Competent Authority** for Grade 12 Certificate
		◣Completed 2nd year of 3-year diploma (after 10th) and pursuing regular diploma	No Experience required			
		◣10th grade pass plus 2-year NTC ◣10th grade pass plus 1-year NTC plus 1 year NAC	No Experience required			
		◣8th pass plus 2-year NTC plus 1-Year NAC plus CITS	No Experience required			
		◣10th grade pass and pursuing continuous schooling	No Experience required			
		◣10th Grade Pass	2 year relevant experience			
		◣8th Grade pass	4 year relevant experience			
		◣Previous relevant Qualification of NSQF Level 3.0 with minimum education as 8th Grade pass****	3 year relevant experience			
		◣Previous relevant Qualification of NSQF Level 3.5	1.5 year relevant experience			
Level 4	**Level 4.5**	◣Completed 1st year of UG ◣Pursuing 1st year of UG and continuous education ◣Pursuing 3rd year of 3-year diploma after 10th and continuous education ◣Completed 3-year diploma after 10	No Experience required	**450-510 Notional Hours of Training** OR For UG Students - 450 Hours of Internship + project work with Assessment	**1 to 2 years** of Vocational education & Training/ Skilling after 12th (NTC/ NAC/ CITS) **OR** **3 to 4** years of Vocational education	**For LTT and STT Courses with UG Certificate** In addition to 20 credits# from NCrF Level 4.5 or above STT/ LTT courses **and,**
		◣Completed 2nd year of 2-year diploma after 12th ◣Pursuing 2nd year of 2- year diploma after 12 and continuous education	No Experience required			

		10th Grade pass plus 3 years of vocational education & Training e.g. ◣10th grade pass with 2 year NTC plus 1 year NAC/CITS ◣10th Grade pass with 1 year NTC plus 1 year NAC plus 1 year CITS	No Experience required		after 10th (NTC/ NAC/ CITS) **AND** (For NTC only) 150 hours of project work **AND** (For NTC/NAC only) 240 hours of Language course	20 credits# from UGC/ AICTE approved NHEQF courses at NCrF level 4.5 or above
		◣10th grade pass with 1 year NTC plus CITS	1 year Experience required			
		◣8th Grade pass with 2 year NTC plus 1 year NAC plus 1 year CITS	1 year Experience required			
		◣Previous relevant Qualification of NSQF Level 3.5 and with minimum education as 8th Grade pass	3 year relevant experience			
		◣Previous relevant Qualification of NSQF Level 4 and with minimum education as 8th Grade pass	1.5 year relevant experience			
Level 4.5	**Level 5**	◣Completed 2nd year of UG ◣Pursuing 2nd year of UG and continuous education ◣Completed 2nd year of diploma (after 12th) ◣Pursuing 2nd year of 2-year diploma after 12th	No Experience required	**480 to 570** Notional Hours of Training **OR** For UG Students - 510 Hours of Internship + project work with Assessment	**2 to 3 years** of Vocational education & Training/ Skilling after 12th (NTC +NAC/ CITS) **OR** **4 to 5 years** of Vocational education & Training/ Skilling after 10th (NTC/ NAC / CITS)	**For LTT and STT Courses with UG Diploma** In addition to 20 credits from NCrF Level 5.0 or above STT/ LTT courses **And** another 20 credits from UGC/ AICTE approved NHEQF courses at NCrF level 5.0 or above
		◣12th pass with 1 year Vocational Education & training (NTC or NAC or CITS)	No Experience required			
		◣Completed 3 year diploma after 10th	1 year relevant experience			
		◣12th Grade pass	2 year relevant experience			
		◣ 10th Grade pass	4 year relevant experience			
		◣Previous relevant Qualification of NSQF Level 4 and with minimum education as 8th Grade pass	3 year relevant experience			
		◣Previous relevant Qualification of NSQF Level 4.5	1.5 year relevant experience			
Level 5	**Level 5.5**	◣Completed 3rd year of UG ◣Pursuing 3rd year of UG and continuous education ◣Completed 2nd year diploma after 12th	No Experience required	**540 to 600** Notional Hours of Training **OR**	**3 to 4 years** of Vocational education & Training/ Skilling/ experiential learning	**For LTT and STT Courses with UG Degree**

		12th Grade Pass plus 2 years of vocational Education and Training. E.g. ◣12th grade pass with 1 year NAC plus 1 year CITS ◣12th grade pass with 1 year NTC plus 1year NAC/CITS	1 year relevant experience	For UG Students - 550 Hours of Internship + project work with Assessment	after 12th (NTC/ NAC/ CITS) **OR** **5 to 6 years** of Vocational education & Training/ Skilling/ experiential learning after10th (NTC/ NAC/ CITS)	In addition to 20 credits from NCrF Level 5.5 or above STT/ LTT courses **And** another 20 credits from UGC/ AICTE approved NHEQF/ courses at NCrF level 5.5 or above
		◣12th Grade pass with 1 year NTC/ NAC ◣Completed 3-year diploma (after 10th)	2 year relevant experience			
		◣12th Grade pass	3 year relevant experience			
		◣Previous relevant Qualification of NSQF Level 5	1.5 year relevant experience			
		◣Previous relevant Qualification of NSQF Level 4.5	3 years relevant experience			
Level 5.5	**Level 6**	◣Pursuing first year of 2-year PG program after completing 3 year UG degree ◣Pursuing PG diploma after 3 year UG degree ◣Completed 4 year UG (in case of 4-year UG with honours/ honours with research) ◣Pursuing Completed 4 year UG (in case of 4-year UG with honours/ honours with research)	No Experience Required	**570 to 660 Notional Hours of Training** **OR** For UG/ PG Diploma Students - 600 Hours of Internship + project work with Assessment		**For STT Courses with PG Diploma** In addition to 20 credits from NCrF Level 6.0 or above STT courses **And** another 20 credits from UGC/ AICTE approved NHEQF courses at NCrF level 6 or above
		12th Grade Pass with 2 years of Vocational Education & Training. E.g. ◣12th Grade with 1 year NTC plus 1 year NAC/CITS ◣12th grade with 1 year NAC plus CITS	2 year relevant experience			
		◣12th grade pass	4 years relevant experience			
		◣Previous relevant Qualification of NSQF Level 5.5	1.5 years relevant experience			
		◣Previous relevant Qualification of NSQF Level 5	3 years relevant experience			
Level 6	**Level 6.5**	◣Pursuing PhD (after 4 year UG honours with research) ◣Pursuing 2nd year of PG (after 3 year UG Degree)	No Experience Required	**630 to 690 Notional Hours of Training** OR		**For STT Courses with PG Degree**

		◣Pursuing 1st year of PG (after 4-year UG Degree with Honours/ honours with Research) ◣Pursuing 1st year of PG- Eng		For PG Students - 660 Hours of Internship + project work with Assessment		In addition to 20 credits from NCrF Level 6.5 or above STT Courses **And** Another 20 credits from UGC/ AICTE approved NHEQF courses at NCrF level 6.5 or above
		◣2-year Diploma after 12th Grade (in any field)	3 years of relevant experience			
		12 Grade Pass with 2 years of Vocational education and Training thereafter. E.g. ◣12th Grade with 1 year NTC plus 1 year NAC/ CITS ◣12th grade with 1 year NAC plus 1 year CITS	3 years relevant experience			
		◣Previous relevant Qualification of NSQF Level 6	1.5 years relevant experience			
		◣Previous relevant Qualification of NSQF Level 5.5	3 years relevant experience			
Level 6.5	**Level 7**	◣Pursuing PhD	No Experience Required	**660 to 750** Notional Hours of Training **OR** For PG Students - 720 Hours of Internship + project work with Assessment		**For STT Courses with PG Engg** In addition to 20 credits from NCrF Level 7.0 or above STT courses **And** 20 credits from AICTE approved NHEQF courses at NCrF level 7 or above
		◣Pursuing 2nd year of 2 year PG- Eng	No Experience Required			
		◣Completed 3 year UG degree	3 years of relevant experience			
		◣Completed 4 year UG degree with Honours/ Honours with research	2 years of relevant experience			
		◣Previous relevant Qualification of NSQF Level 6.5	1.5 years of relevant experience			
		◣Previous relevant Qualification of NSQF Level 6	3 years of relevant experience			
Level 7	**Level 8**	◣PhD in the relevant field	No Experience Required	**750 onwards** Notional Hours of Training **OR** 810 Hours of Internship & project		
		◣PhD in any field	1 year of relevant experience			
		◣PG in any field	4 years of relevant experience			
		◣UG in relevant field	5 years of relevant experience			
		◣UG in any field	6 years of relevant experience			
		◣Previous relevant Qualification of NSQF Level 6.5	4 years of relevant experience			
		◣Previous relevant Qualification of NSQF Level 7	2 years of relevant experience			

Note: This table is subject to change as per the requirements of the vocational education and skilling ecosystem. However, any changes made shall be in line with the overall spirit and provisions of national credit framework. NCVET will issue detailed guidelines on various aspects of NSQF from time to time.

NOTES: # May be read as upto 20 Credits from NCrF/NSQF and remaining credits from NHEQF

*	• Relevant Experience may include On the Job training (OJT), Internship and Apprenticeship training. • OJT undertaken as part of qualification and redeemed into credits shall not be considered again as part of relevant work experience. • For establishment of Relevant Experience & OJT till NCrF/ NSQF level 2.5 the concerned AB/ Regulatory Body may, in the absence of a formal experience certificate, prescribe process (like preadmission test etc.) to assess the relevant experience based on the learning outcomes. In such cases, formal experience & OJT certificate may not be insisted upon. • However, for all NCrF/NSQF levels beyond 2.5 proper certificates establishing relevant experience & OJT shall be required. • The additional hours of learning through project work and NIOS lead to additional credit. • Credits in case of STT programs shall be dependent on number of hours calculated on the principal of 40 credits against 1200 learning hours. • Provision of Recognition of Prior learning with or without up-skilling and subject to outcome based assessment and certification shall also be used for assignment of credit levels to the trained workforce with Experiential learning including relevant experience and professional levels acquired
**	• Competent Authority shall be the body as approved & notified by the Department of School Education and Learning, Ministry of Education (MoE) for assessment & issuance of certificates of academic/ levels equivalence as mentioned
***	• Credits required for academic equivalence may be accumulated through skill training or relevant work experience or language courses subject to successful completion of the same. • It may be ensured that one should not use Monkey stairs using entry Qs + Exp to gets higher and higher levels of certificates without commensurate outcome based skills, which are properly assessed. ABs concerned should clearly put some practical checks and balances/ riders /Limits. For RPL no formal entry qualifications would be insisted upon subject to the condition that the RPL assessment shall be conducted as per the detailed guidelines of NCVET
****	• Not applicable for learners who are purely into skill ecosystem & do not want any academic equivalence or mobility onto the academic axis, may progress vertically on the skilling axis based on the number of years spent in the previous NSQF level and/or RPL subject to assessment without any restrictions on academic entry qualification. This would further be detailed out in RPL Guidelines which provide that in very special cases (say Padma Award winners, Olympic Medalist) the level descriptors may not apply.

3.3.4. Credits Assignment for Relevant Experience and Professional/Proficiency Levels Acquired

One of the dimensions of assigning credit within the NCrF is through relevant experience/ proficiency. As explained previously in the section 3.2.10 (iii), there are two types of experiential learning i.e. experiential learning as part of the curricular design of an academic/ vocational program and experiential learning as part of employment undertaken after completion of an academic/vocational program.

In case where experiential learning is a part of the curricular structure the credits would be calculated and assigned as per basic principles of NCrF i.e., 40 credits for 1200 hours of notional learning. In case where experiential learning is part of employment (related field both wage and self) the learner would earn credits as weightage. The maximum credit points earned in this case shall be double of the credit points earned with respect to the qualification/ course completed. The credit earned and assigned by virtue of relevant experience would enable learners to progress in their career through the work hours put in during a job/employment.

Individual regulators/autonomous institutions may prescribe the weightages for the experiential learning based on the relevant work experience and proficiency/ professional levels achieved. However, the range of these weightages must lie between 1 and 2 wherein 1 in the minimum and 2 is the maximum weightage. An indicative mechanism for assignment of weightages based on the experiential learning (relevant work experience and proficiency level achieved) for calculation of overall credit points is as below:

Table 7: Credit acquired by virtue of relevant experience / proficiency

Experience cum Proficiency/ professional levels	Description of the relevant Experiential learning including relevant experience and professional levels acquired and attaining proficiency/ professional levels	Weightage/ multiplication Factor	Defining criteria by Respective Regulatory/ Trade Bodies (Indicative)
Trained/ Qualified	Completed the coursework/ education/ training and has been taught the skills and knowledge needed for a particular job or activity and assessed	1	◣ E.g. No of years of experience, ◣ Level of knowledge and proficiency or professional levels attained ◣ Any other parameters as maybe defined by the Respective Regulatory/ Trade Bodies
Proficient	Proficient implies a thorough competence derived from training and practice	1.33	
Expert	Expert is defined as performing a job to high standards with good level of education, skill, or training and experience	1.67	
Master	Master means having great/ highest level of knowledge and experience in a trade or profession	2	

Example- a learner who has undertaken training of 1200 hours (40 credits) of level 3 program attains 120 credit points (40*3). Presuming that this candidate works in a related field for 3 years, then the overall credit points earned shall be- 120 X 1.33=159.6 or rounded of to 160 credit points.

Similarly, in case of student/ learner with more than 7 years' experience, the maximum credit points earned will be 120 X 2= 240

3.4. CREDIT ACCUMULATION AND TRANSFER (OPERATIONALIZATION OF CREDIT FRAMEWORK)

a. Credits Accumulation

The credits will be earned by each student and learner after going through the course qualification or program subject to assessment. The credits would be given for every kind of learning which are for each subject or qualifications. These credits can be accumulated Indian Academic Bank of Credits.

Generally, under each of the programs and qualifications design under National Higher Education Qualification Framework (NHEQF) or National Skill Qualification Framework (NSQF) the requirement of credits to be hard for each year or qualification are prescribed by the concerned regulators. Presently there is no credit system in place at school level and therefore there is no practice of prescribing the credits to be earned for clearing each grade in the school. However, once the national credit framework is in place, the concerned regulator may prescribe the credits to be earned for each grade.

There is also a concept of credit points which could be subsequently used for various purposes. The total credit points earned by a student/learner is a multiplication of total credits earned at a level of study/ skilling and NCrF level assigned to that level of skilling/ academic class. The Framework also envisions to consider the cases wherein the student opts out of the education ecosystem and gains employment.

Such a student, if desirous of returning to mainstream education shall benefit as the experience gained by the student during his active employment shall also be assigned credits which can be redeemed to establish eligibility for further mobility in accordance with the assessment band. The weightage assigned to relevant experience shall be multiplied with the credit points to calculate the final credits available to a student.

Accordingly, at any point of time, the overall credit points accumulated by a student shall be calculated as 'total credit points earned' multiplied by the 'weightage assigned to the relevant experience acquired by the student'.

E.g. A learner completing grade 11 and grade 12 from regular schooling
earns 40 **credits** for each grade.
The **credit points** accumulated by the learners would be 3.5 X 40= 140 and 4X40= 160 for each grade.
Therefore, the **accumulated credit points for the assessment band** (NCrF level 3.5 and 4) equals 300.

b. Credits Storage

Credits accumulated by an individual shall be stored through Academic Bank of Credits (ABC) as envisaged under by NEP. ABC shall enable an individual to digitally keep record of all the learning acquired and accumulated throughout life in a common account. ABC shall provide for storage of credits irrespective of type of learning i.e. academic, vocational or experiential and thus shall enable

lifelong learning. Information regarding ABC have been further detailed down in Section 3.5 of this document.

c. Credits Transfer

The transfer of credits may be defined as the process of mutual acceptance of credits between two entities. This would mean that the competencies acquired by a learner/ student after completion of qualification/s are acknowledged in numerical values. The transfer of credits is possible only when credits are recognized by concerned awarding bodies and there is a mutual agreement on credits between the body allocating credits and the body accepting those credits. To enable such transfer, it is imperative that learning outcomes for every NCrF level and every program/course be defined by the concerned regulators/board to facilitate effective operationalization. While having the requisite number of credits shall make a learner fulfil the eligibility criteria for entry to a program, the accepting institution will have flexibility to prescribe the modalities and process for admission which may include merit based listing, an entrance test/ examination or simply first come-first serve basis.

In addition, it would be the responsibility of the regulator/ Autonomous institutions to define the need of abridge module while defining the admission criterion.

The transfer of credits shall fulfil the following objectives:

i. Establish equivalence between General education and Vocational Education and Training/ Skilling, without further certification of equivalence

ii. Define Entry criteria for various qualifications

iii. Define and establish Multiple entry and exit possibilities

iv. Enhance International Mobility

v. Other benefits like establishing minimum requirements for a job/ employment or projects, if applicable

3.4.1. Establishing Academic Equivalence Within and Between General Education and Vocational Education and Training/ Skilling

One of the objectives of the National Credit Framework is to establish equivalence between various streams of education by ensuring equivalence between different types of existing programs/ qualifications and this equivalence sets the base for establishing eligibility of students and/ or establishing multiple entry and exit pathways. The following are the basic principles to be followed while establishing equivalence:

i. The learner must have accumulated credit required for a particular level either through regular informal and formal education, vocational education and training/ skilling or through relevant work experience or a combination of all.

ii. Equivalence is possible only within the same assessment band.

iii. The learner would need to clear/pass the previous assessment band in order to move to the next assessment band

iv. The accumulated credits are with respect to each assessment band.

v. For establishing equivalence (including academic) for a level, the requirement of any additional learning will be defined by the concerned regulator.

Such an equivalence shall be applicable to all kinds of program including those being implemented within school education, Higher education (both general and technical) and vocational education (ITI-DGT based programs). This would mean that even an ITI pass out will be able to get academic equivalence to 9th, 10th, 11th and 12th grades, subject to additionally fulfilling the requirements for such equivalence/ equivalence criteria. The equivalence table (below) in addition to the existing equivalence post completion of 2 year ITI after 8th and 2 year ITI after 10thwith 10th and 12th grade respectively also establishes requirements/ process for academic equivalence for ITI pass student for grade 9 and grade 11.

E.g. 1st year UG and 1st year BE/ B.Tech to be treated equivalent for seeking admission in the second year of any UG program.(with/ without any bridge courses)

E.g. An ITI pass out (2 years after 10th) along with an additional language course from NIOS attains equivalence of Class 12th certificate along with ITI-NTC

The matrix of equivalence between school education & vocational education and training/ skilling and higher education and vocational education and training/ skilling is detailed in the **Table No. 8**

Table 8: The National Credit Framework Levels (NCrF), Academic Levels (National School Education, Higher Education Qualifications Framework), and Vocational Education and Skills Levels (National Skill Qualifications Framework) and conditions for academic equivalence

No of Years of Edu	Stages/ Band/ Education Program	School Education grade Passed / Credits Earned per year/ NCrF Credits Levels	Higher Education Programs (General Edu) / Credits Earned	Higher Education Programs (Tech Edu/ AICTE) / Credits Earned	Vocational education and training/ skilling Programs (Long Term) with Entry criteria	Vocational education and training/ skilling Programs (Short Term) with Entry criteria / Credits Earned	Additional requirement for Academic Equivalence of the VET & Skilling qualifications completed	Common National Credit Framework Levels	Credit Points earned
Col-1	Col-2	Col-3	Col-4	Col-5	Col-6	Col-7	Col-8	Col-9	Col-10
	School Education								
	3 years of **Pre-Primary 800 Hrs/Year**	Balvatika/ **81/ 0.1 x 3**	NA	NA	NA	NA		0.1	8
1	**Primary School** Grade I & II **800 Hrs/ Year** and Grade III, IV & V **1000 Hrs/ Year**	Grade I/ **27/ 0.2**	NA	NA	NA	◣No formal education and ◣150-210 hrs of Vocational education and Training/ Skilling **OR** ◣600 hours of apprenticeship	**In addition to (Col-7)** Foundational literacy and numeracy at NSQF level 1/ 2 for grade 3 or Grade 5 certificate by competent authority	0.2	5
2		Grade II/ **27/ 0.4**	NA	NA	NA			0.4	11
3		Grade III/ **33/ 0.6**	NA	NA	NA			0.6	20
4		Grade IV/ **33/ 0.8**	NA	NA	NA			0.8	26
5		Grade V/ **33/ 1.0**	NA	NA	NA			1.0	33
6	**Middle School 1200 Hrs/ Year**	Grade VI/ **40/ 1.33**	NA	NA	NA	◣No formal education **OR** ◣Ability to read and write with one-year experience wherever job requires **AND** ◣210-270 hrs. of Vocational education & Training/ Skilling	**In addition to (Col-7)** Advance Literacy & Numeracy Skills at NSQF level 2 or 3 through competent authority for grade 5th or grade 8th certificate	1.33	53
7		Grade VII/ **40/ 1.67**	NA	NA	NA			1.67	67
8		Grade VIII/	NA	NA	NA			2.0	80

		40/ 2.0				**OR** ◣**NSQF Level 1 with 1-year Experience** and 210-270 hrs. of Vocational education and Training/ Skilling **OR** ◣750 hours of apprenticeship			
9	High School 1200 Hrs/Yr	Grade IX	NA	Completed **1 year of ITI after 8th class**	8th Grade pass + 1 year of Vocational education & Training/ Skilling (NTC/ NAC) **AND (for NTC only)** 150 hours of project work	◣Total 8-9 years of learning including academic education, vocational education, training and skilling and/or Experiential learning including relevant experience and professional levels acquired, subject to assessment **OR** ◣1-year relevant experience at NSQF Level 2 or 6 months' relevant experience at Level 1 **AND** ◣240-300 hrs. of Vocational education & Training/ Skilling	**In addition to (Col-6)** Language skill at level 3 through competent authority for 9th Certificate **In addition to (Col-7)** Grade 8th certificate + Accumulated 40 credits at level 2/3 **plus** Language Skills at level 3 by competent authority for Grade 9th Certificate	2.5	100
10	High School 1200 Hrs/Yr	Grade X	NA	Completed **2 Years of ITI after 8th Class**	8th Grade pass + 2 years of Vocational education & Training/ Skilling (NTC/ NAC) **AND (for NTC only)** + 150 hours of project work	◣Total 9-10 years of learning including academic education, vocational education, training and skilling and/or Experiential learning including relevant experience and professional levels acquired, subject to assessment **OR** ◣1-year relevant experience at NSQF Level 2 or 6 months' relevant experience at Level 2.5 **AND** ◣270-390 hrs. of Vocational education & Training/ Skilling	**In addition to (Col-6)** Language skill of level 3 through competent authority for 10th Certificate **In addition to (Col-7)** Grade 8th and/or Grade 9th certificate + Accumulated 40 credits at level 3 **plus** Language Skill at level 3 through competent authority for Grade 10th Certificate	3.0	120
11	Sr. Sec. School 1200 Hrs/Yr	Grade XI	NA	Completed	10th Grade pass + 1 year of Vocational	◣Total 10-11 years of learning including academic education,	**In addition to (Col 6)**	3.5	140

				1st Yr of Diploma after 10th (Certificate of Voc. (Eng))	education & Training/ Skilling (NTC/ NAC) (After 10th) **AND (for NTC only)** + 150 hours of project work	vocational education, training and skilling and/or Experiential learning including relevant experience and proficiency/ professional levels acquired, subject to assessment **OR** ◣1-year relevant experience at NSQF Level 3 or 2-year relevant experience at level 2.5 **AND** ◣360 to 420 hrs. of Vocational education & Training/ Skilling **OR** ◣10th Grade pass and pursuing continuous schooling in regular school with one vocational subject	Language skill of level 3.5/4 through competent authority for grade 11th Certificate **In addition to (Col 7)** Grade 10th certificate + Accumulated 40 credits at level 3.5 **plus** Language Skill of level 3.0/3.5 through competent authority for Grade 11th Certificate		
12	Sr. Sec. School 1200 Hrs/Yr	Grade XII	NA	Completed 2nd Yr of Diploma after 10th (Industrial Training Certificate (Eng.)) **Diploma of Vocation**	10th Grade pass + 1 to 2 years of Vocational education & Training/ Skilling (NTC/ NAC) (After 10th) **AND (for NTC only)** + 150 hours of project work	◣Total 11-12 years of learning including academic education, vocational education, training and skilling and/or Experiential learning including relevant experience and proficiency/ professional levels acquired, subject to assessment **OR** ◣2-year relevant experience at NSQF Level 3 or 1 Year experience at NSQF level 3.5 **AND** ◣390 to 480 hrs. of Vocational education & Training/ Skilling	**In addition to (Col 6)** Language skill at level 3.5/4 competent authority for 12th Certificate **In addition to (Col 7)** Grade 11th certificate + Accumulated 40 credits at level 4 **plus** Language Skill at level 3.5/4 through competent authority for Grade 12th Certificate	4.0	160
	Higher Education								
13	3-Year Undergraduate Program 1200 Hrs/Yr	NA	Completed 1st Year of 3-year UG / **(UG Certificate)** 40 credits	Completed 1 Year of technical education after 12th plus internship as per AICTE Policy 40 credits	Total 1 year of Vocational education & Training/ Skilling after 12th (NTC/ NAC/ CITS) **OR**	◣Total 12 to 13 years of learning including academic education, Vocational education, Training and Skilling and/ or Experiential learning including relevant experience and proficiency/ professional levels acquired, subject to assessment	**For Armed Forces** 20 Credits from NHEQF courses at level 4.5 and Above **&** 20 credits from NSQF aligned & approved skill courses at level 4.5 or above	4.5	180

				OR Completed 3-year diploma after 10th 40 credits **Diploma Engineering**	Total 2 to 3 years of Vocational education after 10th (NTC/ NAC/ CITS) **AND (for NTC only)** +150 hours of project work	**OR** ◣2 years of relevant experience at NSQF Level 3.5 or 1year relevant experience at NSQF Level 4 **AND** ◣450-510 hrs. of Vocational education & Training/ Skilling	**For LTT & STT with UG certificate** 20 credit from NCrF level 4.5 or above STT/LTT courses **&** 20 credits from UGC/ AICTE approved NHEQF courses at level 4.5 and above		
14	3-Year Undergraduate Program 1200 Hrs/Yr	NA	Completed 2 years of UG education **(UG Diploma)** 40 credits **OR**	Completed 2 Year of technical education after 12th plus internship as per AICTE Policy 40 credits UG Diploma	Total 1 to 2 years of Vocational education & Training/ Skilling after 12th (NTC +NAC/ CITS) **OR** Total 3 to 4 years of Vocational education & Training/ Skilling after 10th (NTC/ NAC / CITS)	◣Total 13 to 14 years of learning including academic education, vocational education, training and skilling and/or Experiential learning including relevant experience and proficiency/ professional levels acquired, subject to assessment **OR** ◣3-year experience at NSQF Level 4 (min 8th class pass) or 1.5 years of experience at NSQF level 4.5 **AND** ◣480-570 hrs of Vocational education & Training/ Skilling	**For Armed Forces** 16 Credits from NHEQF courses at level 5.0 and Above and 24 credits from NSQF aligned & approved skill courses at level 5.0 or above **For LTT/ STT Courses with UG Diploma** In addition to 20 credit# from NCrF level 4.5 or above STT/LTT courses **and** 20 credits # from UGC/ AICTE approved NHEQF courses at level 5.0 and above	5.0	200
15	3-Year Undergraduate Program 1200 Hrs/Yr	NA	Completed UG 3rd Year **(UG Degree)** 40 credits **OR**	Completed 3 Years of technical education after 12th plus internship as per AICTE Policy 40 credits **(B. Voc/ B.Sc. Eng)**	Total 2 to 3 years of Vocational education & Training/ Skilling/ Experiential learning including relevant experience and proficiency/ professional levels acquired after 12th (NTC/ NAC/ CITS) **OR**	◣UG Diploma **OR** ◣Total 15-16 years of learning including academic education, vocational education, training and skilling and/or Experiential learning including relevant experience and proficiency/ professional levels acquired, subject to assessment **OR** ◣3 years of experience at NSQF Level 4.5 or 1.5 years of experience at level 5 **AND**	**For Armed Forces** 24 Credits from NHEQF courses at level 4.5 and Above **&** 16 credits from NSQF aligned & approved skill courses at level 5.5 or above **For LTT/ STT Courses with UG Degree** In addition to 20 credit from NCrF level 5.5 or above STT/LTT courses	5.5	220

					Total 4 to 5 years of Vocational education & Training/ Skilling/ Experiential learning including relevant experience and professional levels acquired after10th (NTC/ NAC/ CITS)	◣540-600 hrs of Vocational education & Training/ Skilling	**&** 20 credits from UGC/ AICTE approved NHEQF courses at level 5.5 and above		
16	4-Year Undergraduate Program (With Honors) 1200 Hrs/ Yr	NA	Completed 4-year UG with Honors / Honors with Research 40 credits **OR** Completed 1st year of 2-year PG after 3-year UG 40 credits **OR** Completed 1-year PG **(PG-Diploma)** after 3-year UG/ 40 credits	Completed 4 Year of technical education after 12th plus internship as per AICTE Policy 40 credits **B. Tech /B. E**	NA	◣Total 16-17 years of learning including academic education, vocational education, training and skilling and/ or Experiential learning including relevant experience and professional levels acquired, subject to assessment **OR** ◣3 years relevant experience at NSQF Level 5 or 1.5 years of relevant experience at level 5.5 **AND** ◣570-660 hrs. of Vocational education & Training/ Skilling	**For STT Courses with UG Degree- Honors/ research or PG Diploma** In addition to 20 credit from NCrF level 6 or above STT/LTT courses & 20 credits from UGC/ AICTE approved NHEQF courses at level 6 and above	6.0	240
17	Masters/ Postgraduate 1200 Hrs/Yr	NA	Completed 2nd year of 2-year PG after 3-year UG/ 40 credits M.Sc. (Engg.) PG Degree **OR** Completed 1-year PG after 4-year	Completed 1st year of 2-years ME/ M. Tech Prog plus internship as per AICTE Policy 40 Credits **OR** Completed 2nd year of M. Voc after 3-year B. Voc	NA	◣Total 17-18 years of learning including academic education, vocational education, training and skilling and/or Experiential learning including relevant experience and proficiency/ professional levels acquired, subject to assessment **OR** ◣3 years relevant experience at NSQF Level 5.5 or 1.5 year of relevant experience at level 6 **AND**	**For STT Courses with PG Degree** In addition to 20 credit from NCrF level 6.5 or above **&** 20 credits from UGC/ AICTE approved NHEQF courses at level 6.5 and above	6.5	260

			UG with Honors / Honors with Research 40 credits	plus internship as per AICTE Policy 40 credits PG Diploma		630- 690 hrs. of Vocational education and training/ skilling & Training/ Skilling **OR** ◣ Pursuing 2nd year PG (after 3 years of UG Degree) **OR** ◣ Ph.D. after Degree (honors) **AND** 570-660 hrs. of Vocational education & Training/ Skilling			
18	Masters/ Postgraduate 1200 hours/ Year	NA	NA	Completed 2nd year of 2-years M. E/ M. Tech Prog plus internship as per AICTE Policy 40 Credits **(Masters- Eng)**	NA	◣Total 18-19 years of learning including academic education, vocational education, training and skilling and/or Experiential learning including relevant experience and professional levels acquired, subject to assessment **OR** ◣3 years of relevant experience at NSQF Level 6 or 1.5 years of relevant experience at level 6.5 **AND** ◣660-750 hrs. of Vocational education & Training/Skilling	**For STT Courses with PG engineering** In addition to 20 credit from NCrF level 7 or above **&** 20 credits from UGC/ AICTE approved NHEQF courses at level 7 and above	7.0	280
19 years +	PhD after PG, 2 to 4 yrs.	NA	NA	1st Yr of Ph.D. and onwards	NA	◣More than 19 years of learning including academic education, vocational education, training and Skilling and/or Experiential learning including relevant experience and professional levels acquired, subject to assessment **OR** ◣4 years of relevant experience at level 6.5 or 2 years of relevant experience at NSQF Level 7 **AND** ◣750 (or more) hrs. of Vocational education & Training/ Skilling		8.0	320

Notes:

1. *The National Credit Framework (NCrF) shall function as **one single and broad enabling framework** for all regulatory organizations, and autonomous institutions who may, wherever required, notifying their detailed implementation guidelines within this Framework. **However, all implementation guidelines and standing operating procedures (SOPs) shall be in- line with and conform to the national credit framework**.*

2. *The NCrF is **the enabling framework** to empower and enables institutions with the required flexibility for catering to their specific academic requirements for creating imaginative and flexible curricular structures, creative combinations of disciplines and other special needs.*

3. ***STT is Short Term Training, LTT is Long Term Training. In case of Long Term Training (LTT) i.e., column 6:***

   i. *The NTC stands for National Trade Certificate and is a one or two- year duration certificate program. This certificate program is offered by Directorate General of Training (DGT) and is offered after Grade 8th, Grade 10th and after Grade 12th. NTC is offered to students who pass the All India Trade Test (AITT) for Craftsman Training Scheme (CTS)*

   ii. *The NAC is National Apprenticeship Certificate, and the period of training varies from one year & two months to 2 years. The minimum age for undertaking NAC program is 14 years and the qualifications vary from Grade VIII pass to XII Grade pass (10+2) system. NAC is offered to students who pass the All India Trade Test (AITT).*

   iii. *The craftsman Instructor Training Scheme (CITS) is a program offered by DGT for the instructor trainees. The DGT mandates that all trainers in the it is must be CITS certified. The duration of CITS program is 1 year and the eligibility for CITS is Raring NTC/ NAC/Diploma/Degree qualifications.*

4. ***Open schooling and NIOS:***

   i. *Open schooling is an alternative and complementary to formal education offering an opportunity for complete range of schooling. The term open schooling describes that the learning is open in terms of timing, location, teaching roles, instructional methods and modes of access. Open schooling aims at removing obstacles exist in formal learning viz., age, geographic, financial, infrastructure or time related and so on. In this process, the student takes the responsibility for what they study, how they learn, the pace at which they learn, using the learning support they have and when the examinations they take etc. Thus, the learner has flexibility to learn and progress.*

   ii. *In India, the National Institute of Open Schooling (NIOS) is the largest Open Schooling system in the world providing alternative schooling. It offers open basic education courses, vocational, life enrichment courses etc. It offers a range of courses equivalent to Grades III to the pre-degree level. The target group includes neo-literates, dropouts and general public. The NIOS curriculum is largely placed in the categories of equivalency or alternative schooling, life skills education & training, as well as training in income generation courses.*

   iii. *NIOS is also offering various courses in collaboration with various institutions like ITDC, IMA, NHM, Moot, MoHFW, Sector Skill Council (SSCs). NIOS is also implementing various Govt projects for literacy (NLMA), digital literacy (PMGDISHA), ASHA assessment and Certification, Training Assessment & Certification in Community Health for untrained Health workers in collaboration with State Govt.*

   iv. *NIOS offers elementary level courses under its Open Basic Education (OBE) programme for Level-A, Level-B and Level-C equivalent to Grade 3, 5 and 8 of the formal system, Secondary (Grade10) and Senior Secondary (Grade12).*

   v. *So far, NIOS does not conduct 9th Grade examination. For admission to Grade X in NIOS, the entry requirement is Certificate of Grade VIII pass or self-certificate. The Self Certificate states that the learner has studied at Rome and find herself/himself eligible for study in Secondary (Grade 10tR).*

   vi. *Similarly, there is no Grade XI examination in NIOS. For entry to Grade XII, the eligibility criteria are certificate of the Secondary examination from a recognized board. However, a gap of two years for certification at Senior Secondary level is required after passing of the secondary level.*

   vii. *However, the National Credit Framework (NCrF) enables NIOS to conduct special assessments for Grade IX and XI or conduct an on demand examination as and when demanded by the students/ learners.*

   viii. *# May be read as upto 20 credits from NCrF/NSQF program and balance credits from NHEQF based programs.*

3.4.2. Credit Framework Enabling Entry Eligibility for Academic & Vocational Progression

i. The credit points earned and accumulated can be used to determine the eligibility for taking admission in various programs at multiple levels, subject to fulfilment of the following broad principles laid down under NCrF and the acceptance of these credit points by the concerned agencies. While the detailed transfer mechanism indicating entry eligibility at various levels for various streams shall be defined by individual regulators, following conditions are required to be fulfilled:

a. It must be ensured that the student has acquired and accumulated the credit points needed for moving to a particular level after undergoing either skill based training or academic classes or through relevant experience. These credit points must have been accumulated from the adjacent (lower) assessment band. For e.g. A 10th pass student (who had cleared assessment band B') is eligible for appearing for 12th class examination (assessment band 'C') provided the student has accumulated requisite credit points, either through an additional academic program or through vocational education & training/ skilling or through relevant experience as defined in the equivalence table or specified by the regulator/ autonomous institutions.

b. The student has undertaken and cleared the examination resulting in passing of the adjacent lower assessment band. E.g. For taking admission in a UG equivalent program (assessment band 'D'), the students must have accumulated enough credits in the previous assessment band 'C' (11th and 12th) and cleared the requisite exam leading to 12th class certification.

c. The educational institute providing the credits and the institute accepting the credits are in mutual agreement while transferring the credits, without the need for further equivalence certificate for each student. Since a similar program being offered by two different institutions may have variation, it is expected that the institutions permitting transfer of credits will have mutual understanding. The accepting institutes, if they so desire, may also supplement their program with a bridge course.

d. Once the eligibility criteria for various programs is established, the accepting institution may devise appropriate policy changes.

e. The NCrF enables and empowers establishing academic equivalence and defining the entry criteria for various academic and vocational programs. However, the process of admission into the admitting institution including conducting a merit based selections through entrance test/ examination or screening etc for an institute is subject to the guidelines specified by regulator or if the institution is autonomous, the internal

mechanisms established by the institution, subject also to availability of seats etc.

f. As regards the assessment of the students with exceptional achievements/ performance in games and sports, performing/ fine arts, Social Work, NCC, or other similar subjects/ category is concerned, the same can be defined/ prescribed based on their level of competition (State level/ National level, International level/ Commonwealth/ Olympics/ World Championships etc), the level of representation (District/ State/ National/ International), medal/ distinction achieved in team/ individual events, and such exceptional performance can be treated equivalent to an assessment. The modalities, however, may be defined/ prescribed by the concerned regulator.

3.4.3. Establishing Multiple Entry and Multiple Exit (ME-ME) Pathways

The credit transfer mechanism will also enable a student/ learner to enter and exit the educational ecosystem, both general and vocational, at any point of time. In such cases due weightage is given to work experience gained or any other training undertaken by the learner. The proposed equivalence by virtue of this National Credit Framework highlights how a student can accumulate necessary credits that will allow a student to re-enter the mainstream education.

While NCrF is an enabling framework, the detailed guidelines of ME-ME shall be as defined/ prescribed by the concerned regulator. The standardization of content/ curriculum although seems to be an ideal approach, however, given the diversity of the country, the same may not be feasible. The regulators or the autonomous body concerned may however prescribe the criteria for ME-ME which may include an entry or exit module as per the NCrF level of the program.

E.g. A 5th grade student with total accumulated credit points of 200 over the years and undertaking certain bridge course is eligible to appear for 8th class examination. Once the student clears it, he will be grade 8th pass and can continue with 9th grade onwards through mainstream education.

E.g. i. In case of the **undergraduate degree of either three- or four-year duration**, the possible multiple entry and exit options are below:

a. Certificate after completing one year in a discipline or field including vocational and professional areas.
b. Diploma after two years of study; or
c. Bachelor's degree after a three-year programme
d. Bachelor's degree with research/ honours/ Engineering in case of a 4-year bachelor program

E.g. For the Master's programmes:

a. A two-year programme with the second year devoted entirely to research for those who have completed the three-year Bachelor's programme.

b. A one-year Master's programme for students who are completing a four-year Bachelor's programme with honours or Honours with Research; and

c. An integrated five-year Bachelor's/Master's programme with an option to exit at the end of the third year with a Bachelor's degree, with entry to a 2-year Master's programme in another HEI.

E.g. Learner after completing first year of M. Tech program, shall be eligible for an M. Voc degree, upon exit. Having M. Voc degree, however, is not mandatory for entry into an M. Tech program.

The responsibility of detailing out the multiple entry- multiple exit options for the general education and the vocational education and training/ skilling shall be the responsibility of concerned regulators. The regulator/ autonomous institutions like IITs and IIMs may also take a view on the level of standardization of subjects and content being implemented in various institutions (both school and higher) for the enablement of seamless student mobility, however, the NCrF does not prescribe any such condition for mobility of students.

The ME-ME options separately for higher education (both by UGC and AICTE) is at **Annexure III.**

3.4.4. International Mobility

The International equivalence and transfer of credits shall be enabled through various multilateral/ bilateral agreements between respective regulators of the countries concerned.

A uniform and standardised national framework for credit accumulation and transfer would lend credibility and authenticity to the credits being assigned and earned under various programs in India thereby making these credits more acceptable and therefore transferable internationally.

The demand for transparent sets of professional competencies, skills, and knowledge propelled by the globalization of economies enhanced the international mobility of students and professionals. Acceptance of equivalence of various qualifications between the countries, therefore, becomes vital to enable the international equivalence and mobility of students and professionals. In higher education, there could be variations in terms of course contents, levels of the courses, the assessments and grading systems, and titles of qualifications, which always remained a challenge to establish any equivalence of certificates, diplomas and degrees or allow transfer of credits between two institutions in different countries. This necessitates the requirement of a measurable method for establishing equivalence between qualifications to enable the identification of skills, comparisons, and mobility of learners and workers between countries.

The Qualification Frameworks, which provide for a way of structuring qualifications defined by not only the course curriculum, but the learning outcomes becomes the incredible method to measure the outcome of learning and thus for comparing qualifications to establish equivalence. Thus, the thrust towards developing National Qualifications Framework (NQF) focusing on learning outcomes/graduate attributes gained importance. Many countries developed National Qualification Framework (NQF) with learning outcomes as the focal point. Simultaneously, the pace to develop the Regional Qualifications Framework (RQF) also picked up due to the initiatives by the Organisation like Economic Co-operation and Development (OECD), World Bank, and International Labour Organization (ILO). International agreements that followed enabled the comparison of qualifications between the signatory countries encouraging the mobility of learners and professionals.

- **The Washington Accord** originally signed among six countries in 1989, represents an International Agreement among bodies responsible for accrediting undergraduate engineering degree programme. It recognizes the substantial equivalency of programmes accredited by those bodies and recommends that graduates of programmes accredited by any of the signatory bodies be recognized by the other bodies as having met the academic requirements for entry to the practice of engineering in the area of their jurisdiction. The Washington Accord facilitates the mobility of engineering graduates and professionals at the international level. As of now, there are 21 nations that are members of the Washington Accord. India became its permanent member on 13th June 2014. On completion of six years, the status of the National Board of Accreditation (NBA) as a permanent signatory to the Washington Accord it was extended for the next six years in June 2020 after a detailed review by an International Review Team appointed by the International Engineering Alliance, the Secretariat of Washington Accord.

- **The Bologna** Process launched in 1998-1999, established goals for reform in the participating countries, such as the three-cycle degree structure (bachelor, master's, doctorate), and adopted shared instruments, such as the European Credits Transfer and Accumulation System (ECTS). The Bologna Process is aimed to improve the effectiveness and efficiency of higher education in Europe in the context of a common European Higher Education Area. Learning outcomes form the premise for the Bologna education reform. Mobility of students by recognition of qualifications contributes to the mobility of students at an international level thereby the credit transfer from one institution to another is simplified.

- Based on the Bologna Process, a series of descriptors, as given below, for the three Bologna Process cycles were drafted which came to be known as Dublin Descriptors, as below:
  - Knowledge and understanding.
  - Applying knowledge and understanding.
  - Making judgments.
  - Communications skills and Learning skills.

i. **Global Convention on the Recognition of Qualifications:** It concerns Higher Education and was unanimously adopted by the UNESCO General Conference at its 40th session on 25 November 2019. The Global Convention is designed to facilitate international academic mobility and promote inclusive access to higher education, by ensuring the right of individuals to have their higher education qualifications evaluated through fair, transparent, and non-discriminatory mechanisms. It also aims to strengthen international cooperation in higher education and contribute to raising the quality of higher education worldwide.

ii. **Sydney Accord:** The Sydney Accord was signed in June 2001 for development and recognition of good practice in engineering education. The Sydney Accord is specifically focused on academic programmes dealing with engineering technology. The Accord acknowledges that accreditation of these academic programmes is a key foundation for the practice of engineering technology in each of the 11 countries/territories covered by the Accord.

iii. **The Dublin Accord:** Originally signed in May 2002 for mutual recognition of the academic program/qualifications which underpin the educational base granting Engineering Technician titles. The Accord acknowledges that the educational base is a key foundation for practice as an engineering technician, in each of the 9 countries or territories covered by the Accord. The Dublin Accord is fostering the concept that for academic recognition, an accreditation system which remains independent of the institutions being accredited is essential. Critical issues-professional competency, accountability, benchmarked standards, quality assurance, and risk management-must be addressed

To enable, enhance and encourage such mobility, it is important that a nationally accepted and internationally comparable and acceptable framework be developed to facilitate transparency and comparability of higher education qualifications at all levels internationally.

The development of the National Credit Framework (NCrF) and the National Higher Education Qualifications Framework (NHEQF) will greatly facilitate our attempts in this direction.

The concerned regulator/autonomous institutions shall prescribe the relevant mechanism/guidelines for establishing such comparability and mutual agreement with counter parts in the other countries.

A committee to review the Sydney and Dublin accord in light of NEP, 2020 and integration of skill sets with knowledge based present education system and desirability to enter into these accords for recognition of Indian Engineering and vocational qualifications among member states for exploiting employment opportunities formulated at AICTE. In the meeting it was discussed that India could be signatory to Dublin Accord established for mutual recognition of engineering technician qualifications i.e. 3- Years Engineering Diploma and later explore the possibility of including B.Voc under this accord.

3.4.5. Enabling Requirements for a Job/ Employment

A well-structured and evolved Credit Accumulation & Transfer mechanism shall also enable prospective employers to not only verify the competencies achieved by a candidate in terms of credits but also map the job requirements with competencies required in terms of credits in a particular sector/subsector/occupation. This may convert credits into a ready currency in the job market enabling an individual to use them for recruitment and recruiters to notify jobs in terms of credits.

3.5. CREDIT STORAGE AND REDEMPTION THROUGH ACADEMIC BANK OF CREDITS

3.5.1. Mechanism for Credit Storage

The framework envisages a well-developed Academic Bank of Credits (ABC), encompassing the requirements of academic, vocational and Experiential learning including relevant experience and proficiency/ professional levels acquired. As per NEP 2020, Academic Bank of Credits (ABC), which shall be a national-level facility, will promote the flexibility of the curriculum framework and interdisciplinary/multidisciplinary academic mobility of students across the HEIs in the country with appropriate 'credit transfer' mechanism.

ABC shall enable the integration of multiple disciplines of school education and higher education leading to the desired learning outcomes including increased creativity, innovation, higher order thinking skills and critical analysis. ABC shall provide significant autonomy to the students by providing an extensive choice of courses for a programme of study, flexibility in curriculum, novel and engaging course options across a number of higher education disciplines/ institutions.

'Academic Bank of Credits' (ABC) system intends to enable students across the nation in “fulfilling their thirst for knowledge by providing academic flexibility to pick and modify their educational paths, link diverse disciplines; and assist them in acquiring the proper foundations and building blocks for their ambitions”. The 'Academic Bank of Credits' (ABC) shall be an educational digital platform created to facilitate student's seamless mobility between or within degree-granting Higher Education Institutions (HEIs) and vocational education and training/ skilling through a formal system of credit recognition, credit accumulation, credit transfer, and credit redemption to promote distributed and flexible teaching and learning. The ABC guidelines have been notified by UGC and will be extended to cover the provisions related to school education as well.

3.5.2. Accumulation and Storage of Credits

The Academic Bank of Credits shall be a repository of all credits earned by a student. These credits shall be accumulated and redeemable provided the credits accumulated are within the same assessment band. The credits accumulated shall have a validity/ expiry which will be defined with respect to each program.

This will be the responsibility of independent regulators based on the type, relevance and future utility of a program amongst others. The validity of the credits should be in-sync with all the other regulatory policy and initiatives of the Government. Once redeemed the student shall not be able to use the same credits again for similar purpose.

3.5.3. Verification of Credits Earned

The verification of credits accumulated and stored in ABC will be done by respective regulators.

3.5.4. Redemption of Accumulated Credits

The ABC will promote equity, quality, flexibility, mobility, collaboration, transparency, and integration to improve the competitiveness and efficiency of India's education system. ABC shall provide services, including credit accumulation, credit transfer, credit redemption through the opening, closure and validation of accounts and shall enable multiple entry-multiple exit (ME-ME) options in a programme. Students who pursue education as freelancers or through open / home / online schooling can also accumulate credits. These credits can be deposited to student's ABC account. After the accumulation of credits, a student can redeem these in order to get any academic degree based on the norms set by the regulatory body/ institution. It works on the principle of ME-ME as well as "anytime learning, anywhere learning, and any level learning' as is emphasized in NEP 2020. It can facilitate the integration of campuses by creating student mobility within the university system. ABC can also help integrate skills into a credit-based system by providing a credit recognition mechanism. However, the Certificates/ Diploma/ degrees will have to be given by university, regulator or respective Awarding Body (AB) and not by the credit bank.

The ABC will act as a Bridge for Employability meaning that ABC will also enable the employers to access the credit accumulated and stored in order to establish the eligibility of a candidate for a particular job. For credit redemption, the process to be followed will be as per the Academic Bank Guidelines notified by UGC.

3.5.5. Credits Expiry and Renewal

'Credits earned by students shall be deposited in the respective Bank Account with ABC and shall be valid for a period as defined by the respective regulator or till it is redeemed. The redemption of credits shall be as per the provisions of ABC Guidelines or as stipulated by the regulator concerned/ autonomous institution.

3.6. Implementation of Operationalization Guidelines and SOPs

3.6.1. SOPs and Guidelines

While the NCrF lays down broad framework, enabling provisions and basic guidelines for achieving the intent of NEP has been included in this document along with the responsibility of implementing the provisions defined in the NCrF through detailed operational guidelines. NCrF provides enough scope to the Regulators and Autonomous Institutions to have Implementation SOPs, Guidelines on various aspects viz. Multiple Entry, Multiple Exit, entry and exit modules for implementing ME-ME, within the overall national credit framework the regulators and the autonomous institutions may have guidelines and SOP on the following:

i. Developing flexible curricular structures, multi-disciplinary credits vs. academic/other credits to be earned under a program, assessment strategy and methods, establishing admission/ entry criteria for various programs etc.

ii. Prescribing learning outcomes for various academic/vocational program corresponding to comparable NCrF credit Level.

iii. Detailing the multiple entry-multiple exit options including the requirement of any additional entry or exit modules.

iv. The detailed guidelines on establishing equivalence within and between general and vocational education and training/ skilling for a level, including the requirement of additional learning.

v. The assignment of credits for individual programs in terms of learning hours for theory, practical and Experiential learning including relevant experience and proficiency/ professional levels acquired for calculation of credits for the program.

vi. Defining the components for learning hours, over and above mentioned in NCrF.

vii. SOPs for credit assignment, credit transfer and redemption, credit validation and expiry, creditization of digital/ online learning.

viii. Determine the curriculum, syllabus, content, teaching and learning material for a program and its standardization across educational institutions, if the regulator or the autonomous body so decides.

ix. SOP for accumulation of credits for courses/ qualifications/ programs earned in the

same assessment band, and also setting up of broad learning outcomes for each level and assessment bands defined under NCrF.

x. Detailed transfer mechanism indicating entry eligibility at various levels for various streams shall be defined by individual regulators, subject to fulfilment of defined conditions.

xi. Define the specific modalities for catering to students with varying pace of learning and defining special assessment criteria.

xii. The basis of assigning and assessing credits for students with exceptional achievements/ performance in games and sports, performing/ fine arts, Social Work, NCC, or another similar subjects/ category.

xiii. Detailed guidelines for Recognition of Prior Learning (RPL).

xiv. SOPs for considering relevant experiential learning and attaining higher proficiency/ professional levels for assignment of additional credit points subject to assessments.

xv. SOPs for verification and redemption of credits accumulated and stored in ABC.

xvi. Detailed guidelines on Operationalisation of ABC for school education, higher education, technical education and vocational education and skills

3.6.2. Operationalization of NCrF by the concerned Regulators and Autonomous Institutions

During the course of public consultations, it has been emphasised by most of the stakeholders that for proper implementation of NCrF there is a need for detailed instructions for operationalization including micro detailing of certain aspects as prescribed in the NCrF. As already stated, the National Credit Framework is only an enabling framework and provides enough flexibility to the individual regulators and autonomous institutions to come up with detailed standard operating procedures and guidelines on the above-mentioned aspects of operationalization. For this purpose, the regulators and autonomous institutions may have to constitute various committees with representation of all stakeholders, including the members from all regulators, for avoiding any conflict in the SOPs, guidelines and instructions being issued by individual regulator and autonomous bodies and to ensure that all such guidelines and instructions are aligned to provisions laid down in the NCrF. Such an inclusive and holistic approach will also ensure that a continuous cross consultation and referencing so that there are no provisions in the operationalization guidelines by any regulator which are conflicting with or contradictory to philosophy and basic principles of NCrF.

3.6.3. Mechanism for Removal of Difficulties During Implementation

Though the high-level committee has tried it's best to envision and include all types of use cases still it is felt that at the time of implementation a number of new aspects related to framework or use cases may come up requiring an appropriate resolution at inter-ministerial level.

Therefore, for issuing clarifications, taking care of the unforeseen use cases which concern all regulators and autonomous bodies, resolving any initial hiccups and ensuring smooth implementation of the National Credit Framework, the government may continue the functioning of High-Level Committee with its current composition or by altering its members for next one year, for ironing out and resolving the initial implementation issues while also taking steps for capacity building of the stakeholders.

The HLC having members from all concerned ministries, regulators & institutions shall ensure removal of any difficulty and bridging of any policy/ framework gaps during the implementation process. This committee shall also enable inter regulator/inter institutional discussions & deliberations to remove any doubts, issue any clarifications and resolve any conflicts.

It is recommended that after one year a Standing Committee on national credit framework maybe constituted by the government drawing members from all regulators and ministries concerned for overseeing the smooth implementation of NCrF at all levels.

3.7. Indicative Roles and Responsibilities of the Stakeholders

The Stakeholders namely Administrative Ministries and Departments, concerned Regulators for Higher Education, School Education and Vocational Education, various School Boards at central and state level, Institutes of National Importance (INIs), Universities, Colleges, Training centres and faculty/ teachers/ trainers will require to play their part in implementation of NCrF.

Table 9: The indicative roles and responsibilities are as mentioned below:

STAKEHOLDER INVOLVED	RESPONSIBILITIES
Administrative Central Ministry/ Department MSDE and DoSEL, DoHE MoE	i. Get the final report on National Credit Framework submitted by the high-level committee approved by the competent authority and notify the same. ii. Constitute the inter-ministerial committees to formulate the communication strategy, including communication with the state governments, for creating public awareness for implementation of NCrF. iii. Create awareness through conduct of conferences, workshops and other means on the provisions of NCrF and how it is to be implemented by various stakeholders. iv. Ensure effective implementation of the provisions laid down in NCrF by respective bodies under the central as well as the state government and the respective regulators. v. Effective monitoring of implementation of NCrF
Regulators (UGC/AICTE/NCVET) School Boards (CBSE/NIOS/State)	i. The regulators/ INIs/ Autonomous institutes to prescribe and notify various operationalization guidelines SOPs, and other provisions related to implementation of various provisions of NCrF ii. Designing courses, qualifications and programs with clear learning outcomes for various academic/vocational programs as provided under national education policy and NCrF with appropriate Credit Levels. iii. Expand the scope of operation of academic bank of credits to include school education and vocational education, training& skilling by setting up a committee of regulatory bodies concerned who will participate in the academic bank of credits. iv. Operationalization of ABC and mandating ABC to all the bodies v. Enabling/ Developing flexible curricular structures for multi-disciplinary holistic learning and effective integration and embedding of vocational education, training and skilling with general education. vi. Frame and issue detailed SOPs for credit assignment including creditization of digital/ online/ blended learning. vii. Prescribe SOPs/Guidelines for • Entry criteria for various programs • Establishing equivalence between programs • ME-ME options applicable along with entry/exit module • Creditization of Additional programs viii. Design and develop outcome based assessment methodologies and SOPs as per the provisions of NCrF.

STAKEHOLDER INVOLVED	RESPONSIBILITIES
	ix. SOPs for considering relevant experiential learning and attaining higher proficiency/ professional levels for assignment of additional credit points x. Assignment and storage of credits for school education, skill education and experiential learning as per the expanded scope of Academic Bank of Credit and for proper operationalization of ABC. xi. Lay down/ prescribe admission guidelines with ME-ME options for various programs/courses in line with the provisions of the NCrF. xii. Develop guidelines for credit accumulation, storage and transfer for various purposes for different programs/courses. xiii. SOP for verification and redemption of credits accumulated and stored in ABC xiv. Assessment guidelines for assessment of students with accelerated or slow pace of learning, exceptional achievements/ performance in games and sports, performing/ fine arts, social work, NCC, or another similar subjects/ category and assignment of credits to such learners
HEI- Autonomous Institutes/ Universities **VE- Awarding Bodies**	i. Design of programs and courses prescribing credits for theory, practical and experiential learning including the learning outcomes. ii. Assignment and accumulation of credits subject to successful assessment for achieving the prescribed learning outcomes. iii. Creating awareness about National Credit Framework and various provisions for the stakeholders including students, institutes and industry iv. Design and implement flexible and multi-disciplinary curricular structures and detail programs to be offered which are outcome based with embedded vocational education and skill components at various NCrF credit levels. v. Design and develop assessment methodologies, guidelines and SOPs for outcome-based learning including assessment types and methodologies as per the provisions of NCrF. vi. Guidelines for establishing entry criteria for various course/programs. vii. Provide for ME-ME options with additional requirement of entry/exit modules if any. viii. Detailed guidelines for establishing equivalence between two programs/courses/ Qualifications/ National Occupational Standard (NOS) from various Universities/Institutions/ Awarding Bodies etc.

STAKEHOLDER INVOLVED	RESPONSIBILITIES
	ix. Implementation and monitoring of guidelines, standard operating procedures and mechanisms designed for implementation of provisions of NCrF. x. Creation of adequate digital infrastructure and ICT guidelines for effective implementation of National Credit Framework (NCrF) including ABC. xi. Take all other steps for the Operationalization of national credit framework guidelines and all its provisions in totality.
Affiliated Institutions/ Schools/ Training centre	i. Create awareness about provisions of NCrF for the faculty, students, parents, resource person and others. ii. Implement SOPs/ Guidelines as prescribed by concerned regulator/Boards/Universities. iii. Operationalise ABC including any ICT infrastructure required for the same. iv. Capacity building of Faculty/ Teachers/Trainers/ students.

4. SECTION 4: SPECIAL PROVISIONS IN NATIONAL CREDIT FRAMEWORK

4.1. Provisions for Creditization of Special Cases of learning: Educational Acceleration

The framework would be considered as successful only if it is responsive to the special needs of various groups off students and learners. The respective regulators would make provision for such exceptional cases. Some of the use cases to be covered are given below:

I. Provision for educational acceleration and its creditization

a. Education acceleration is one of the established mechanisms for gifted children. The practice of educational acceleration has been used to match high level student's general abilities and specific talents with optimal learning opportunities

b. Acceleration occurs when students move through traditional curriculum that rates faster than the normal pace. Among the many forms of acceleration are grade skipping or class skipping, early entrance to school or college and subject based acceleration, for example when a 5th standard student takes an 8th standard mathematics or social science or a language course

c. For educational acceleration the following activities have been undertaken/ planned under the national education policy:

i. NCERT & SCERTs when framing the national or state curricular and pedagogical framework for early childhood care and education will factor the aspects of educational acceleration.

ii. PARAKH as well as CBSE, NIOS and other School Boards of assessment in the country **will design/ create/ prescribe special assessment methods to facilitate** the assessment of **such fast track learning trajectories** for gifted children.

iii. UGC, AICTE and NCVET may also develop their own mechanisms, including special assessment methods, for enabling assessments of such fast track learning trajectories for such gifted students, independent of the learning hours spent by them.

iv. In such cases **instead of the learning hours** it is the **pre-defined learning outcome subject to very strict, high-standard assessment** that would establish that the intended learning outcomes have been fully achieved which would decide the assignment of credit levels and the credits.

II. Provision for Creditizing National/ International Achievers in Various Fields

a. Creditization for achievers at the national and international levels in various fields is one of the objectives of National Education Policy 2020. The practice of creditizing national/ international achievers in various fields, including but not limited to sports & games, science, technology, social work, performing arts, fine arts, tradition & heritage, literature, Indian knowledge system etc. is it required to promote excellence in various fields of national and international importance which in-turn will encourage promotion of high level general abilities and specific talents in such fields.

b. The special achievements could be way of winning medals/ positions in national or international events, Padma or other awards conferred by the central or state governments or other recognised bodies, high impact high priority social work which could be duly assessed through independent assessment methods.

c. The indicative list of various fields for such special achievers could be:

i. **Games and Sports**, for example National/ Federation Games, National Championships, Commonwealth/Asian Championships, Asian Games, World Championship, World Cup, Olympic Games, etc

ii. **Performing Arts**, viz dance drama, music, including Indian classical music,

iii. Master Craftsmen of **Heritage and Traditional Skills**,

iv. **Social work with high impact or in priority areas**, for example education, environment, healthcare, anti-drug, etc

v. **Special achievements in the Innovation and start-up ecosystem** with high impact or in priority areas for example innovation development of indigenous technologies in agriculture and rural development

vi. Special expertise in **Indian Knowledge System**: The tradition mentions 18 major vidyas, or theoretical disciplines; and 64 kalas, applied sciences or vocational disciplines, crafts. The 18 vidyas are: the four Vedas, the four subsidiary Vedas (Ayurveda - medicine, Dhanurveda - weaponry, Gandharvaveda - music and Silpa - architecture), Purana, Nyaya, Mimamsa, Dharmasastra and Vedanga, the six auxiliary sciences, phonetics, grammar, metre, astronomy, ritual, and philology — these formed the basis of the 18 sciences in ancient India.

d. The learning outcomes will have to be pre-defined in each case at appropriate national credit framework levels along with the criteria for special achievements, and method of assessments to measure/ establish the achievement of the desired outcomes.

E.g. If a person has won a gold medal in the Olympic Games, his preparation and practice for this outcome and achievement could be equated with the skilling credits requirements (say 70% credits) for a B. Voc. degree in physical education. Just by accumulating 30 percent remaining academics credits (say in Hindi), the person could get vocational degree in physical education.

4.2. Provision for Recognition for Prior Learning (RPL)

There exists a large section of students/ learners/ persons/ workers who have acquired knowledge, skills, and work competencies through either informal or mix of formal and informal experiential learning including relevant experience and proficiency levels acquired or other learning through family/ traditional inheritance etc.

However, they have no formal certifications for the same. As a result, they are unable to be integrated with the formal education and skill ecosystem for further progression in the academic stream or through up-skilling or re-skilling. Moreover, they do not get appropriately paid and get limited opportunities for revenue generation for their knowledge and skills in the absence of any formal recognition of their skills and skill certifications.

E.g. Another example in the social work could be that a student, who has successfully planted 10 trees in his/her village and has successfully looked after these trees for a certain period, say one or 2 years, and the plants have survived well, he or she could be given certain credits for this work subject to the assessment with credible visual evidence by the village panchayat or the local forest Ranger or is the school principal that the trees planted have actually survived.

To enable such students/ learners/ persons/ workers, NCrF provides for 'Recognition of Prior Learning' (RPL) which refers to the process for recognising learning that have been developed from experiential learning including relevant experience and proficiency/ professional levels acquired and/or previous formal, non-formal and informal learning contexts subject to assessment of their existing knowledge, skills, competencies, learning outcomes. The Learning outcomes are appropriately assessed leading to the certification of the same through a pre-prescribed, well-defined, credible, objective and established process/ mechanism. RPL, therefore will enable such students/learners/persons/workers to formalise their previous formal, non-formal and informal learning and provide them the opportunities for personal and career development through career progression and skill upgradation by their integration into formal education and skilling ecosystem.

As envisaged under NEP 2020, the NCrF provides for earning and accumulation of credits through education, skill development and experiential learning including relevant experience and proficiency/ professional levels acquired on outcome-based assessment approach (rather than criteria based on

learning hours alone). However, for earning and accumulation of credits, assessment of students/ learners/ persons/ workers, corresponding to a particular NCrF level assessment is a mandatory requirement. The level descriptors clearly define the levels of knowledge, skills, competencies and learning outcomes for each Credit level under NCrF. Moreover, the National Higher Education Qualification Framework (NHEQF) and National Skill Qualification Framework (NSQF) level descriptors are also in place.

Thus, NCrF shall provide a gateway to the students/ learners/ persons/ workers to creditise their informal or mix of formal and informal experiential learning, including relevant experience and proficiency/ professional levels acquired or learning through other methods, into credits at pre-designated NCrF levels through a pre-defined, well-established outcome-based assessment process called Recognition of Prior Learning (RPL). This provision shall also enable the goal of lifelong learning, open further progression pathways to higher education for such persons and enhance the employability and/or entrepreneurial opportunities as envisaged under NEP 2020.

Under the framework of NCrF, the school education, higher education and vocational education shall establish their own mechanisms through a well-defined, credible, objective and established process/ for RPL evolving out of NEP principles of outcome-based learning and assessment.

The similar concept of RPL may also be extended to the general education, including school education and higher education domain, to create options for students/ learners/ persons/ workers to get assessed for a subject/ qualification at a NCrF level, subject to meeting the competency and outcome levels in-line with the level descriptors and regulatory compliances prescribed by the regulator concerned. Such a provision shall effectively provide them with opportunities and options of examination/ Assessment-On-Demand. NIOS is an example which offers option of Exam-On-Demand to the learners who have completed certain numbers of years of self-study or learning for assessment for a particular educational grade. Similar models shall be developed and adopted by CBSE and other state school boards etc. to provide RPL/examination/ Assessment-On-Demand options in school education as well.

The students should also have option to get themselves assessed for learning /subject/ skills acquired outside the formal education system. This shall, in the true sense, promote multidisciplinary learning and innovation while opening pathways from vocational education training & skills to general education, and vice versa to achieve the objective of holistic approach in education. The concept of On-Demand-Assessment (RPL on-demand) along with the general RPL would form the basic pillars of creditization of learning through informal/ non-formal/ other methods.

The NEP discusses the rich traditions &heritage of ancient Indian eternal knowledge and promotes the nurturing of traditional and heritage skills. It furthermore emphasizes on researching, enhancing and putting new uses through our education system. Recognition of Prior Learning (RPL) for various

traditional (indigenous) skills and occupations is an integral approach to acknowledge and recognise the potential of scholars of the Indian knowledge system, traditional and heritage skill masters, craftsmen and artists, exponents of classical music and performing and fine art forms, as also paving the way for the local artisans and craft persons for upskilling and mainstreaming them in formal education and skill sectors. NCrF shall empower them to improve and upgrade their skills and competencies.

However, the Recognition of Prior Learning (RPL) would require trained master assessors and assessors along with a well-defined, credible, objective, reliable, rational and established assessment processes. Such assessment shall also have to be carried out through credible assessment agencies and must be evidence based. In a few traditional and heritage skill areas, such assessments may be carried out using very unconventional methods like relying on the Guru-Shishya Parampara.

Globally recognised reputed industry bodies and OEMs, who are themselves the big consumers of the output of the skilling ecosystem, may also play a vital role as designated assessment agencies/ centres for some of the RPL. However, for enabling these suitable guidelines will be developed and notified by the respective regulators.

Thus, RPL is based on the Learning Outcome (LO) based assessment approach recognizing learning through informal methods, providing access and opportunity for further education and skilling.

In conclusion, credibility of RPL is based on the high quality assessment consisting of a well-defined, credible, objective, reliable and rational and established assessment processes. Assessment against pre-defined learning outcomes at pre-defined NCrF levels, as per Level Descriptors of respective regulator. Such RPL can be assessed through the dedicated assessment centres of with state of art infrastructure & robust assessment mechanism with proper evidence. RPL allows transition from training centres to higher education institutions in both directions and increase educational choices and career opportunities specially for the deprived section of the society.

The detailed guidelines for implementation of RPL will be developed and notified by the concerned regulators/ autonomous bodies for further enablement of abovementioned provisions as per requirements.

Name: A, **Job role:** Helper/ Assistant Automobile repairing Mechanic (level 2, 2.5, 3), **Age:** 22 , **Education:** Ability to read and write, **Experience:** 4 years

'A' gets enrolled in the RPL program and goes through the RPL assessment process. He was declared successful in the assessment and awarded with the RPL certificate of NSQF level 2.5 along with credits.

Name: B, **Job role:** Automobile repairing Mechanic (level 4.5) , **Age:** 25,
Education: 5th Grade pass, **Experience:** 6 years

'B' got to know that RPL can provide a certificate for his skills gained from work experience of 6 years in automobile repairing domain and got enrolled in the RPL program.After enrolment, a master assessor was assigned to him, and he goes through the RPL assessment process. Post clearing the assessment 'B' is awarded with the RPL certificate of NSQF level 4 along with credits.

4.3. Provisions for Creditization of Special Cases of learning: Divyangs/ Persons with Disability

The National Credit Framework supports the same level and number of credits for Divyangs (Loco, Visual, Mental etc.), even though it may require higher learning notional hours (Theory and/or Practical as the need be) with special assistance (like Audio Visual contents) for achieving the same outcome levels for these individuals.

These learners' basis the skilling level and certification attained post successful completion of assessments shall be competent to carry out various job roles like those by the general candidates.

4.4. Provision for special events like Hackathon, Olympiads

National Credit Framework (NCrF) also enables hackathons, and subject Olympiads. The provision and detailed guidelines would also be developed for handling hackathons, and subject Olympiads etc. for exceptional children/ students/ learners.

a. **Hackathons, and subject Olympiads**, both would need special assessment methods and credit assignments on the basis of achievement of outcome based learning outcomes subject to such special assessment.

b. For such special events, **instead of the learning hours,** it is the **learning outcome which would decide the assignment of credits and the credit levels**. However, the **assessment has to be very objective, credible, strict, above board and adhere to high standard** so as to keep the integrity of the NCrF, and the credits earned through **Hackathons, and subject Olympiads** intact.

c. Assignment of credits as per the defined NSQF levels of the learning outcomes or the qualification, the commensurate NCrF level may be calculated on the basis the academic qualifications which are relevant for the respective skill learning outcome.

d. In this type of RPL the organization will register for Hackathon based RPL (to be

conducted either internally or externally by the bodies recognized for such assessments. There will be submission of a Problem statement that may have cross sectoral and/or multi sectoral academic, NOSs/Skills involved. The Hackathon shall be aligned with standards created by respective regulators, institutes or Awarding Bodies. Awarding Body will validate the alignment of problem statement with Qualifications that are NSQF aligned. The assessments shall be carefully calibrated to measure the exact learning outcomes and commensurate credits add credit levels emerging out of the learning outcomes from the event.

5. OUTCOMES OF THE PROPOSED NATIONAL CREDIT FRAMEWORK: REALISING THE VISION OF NATIONAL EDUCATION POLICY 2020

The implementation of the National Credit Framework (NCrF) will have the following benefits/ expected outcomes:

i. NCrF will enables fulfilling the objective of NEP to ensure that there is no rigid separation between academic streams, extracurricular, and vocational streams in schools.

ii. NCrF will also give due weightage to Experiential learning including relevant experience and proficiency/ professional levels acquired which is now included as a part of the overall learning hours.

iii. NCrF enables embedding and integration of vocational and skilling at all levels of Education. In the form of exposure at early stages and in the middle school and quality vocational education, training and skilling at the secondary and senior secondary school, smoothly integrating into higher education. It will ensure that every student learns at least one vocation/ skill, earns credits for it and is exposed to several more vocation and skills.

iv. NCrF will enable the required flexibility, so that learners have the freedom to choose their own learning trajectories and programmes, thereby defining their own career path according to their talents and interests.

v. NCrF will ensure the unity and integrity of all knowledge by enabling multidisciplinary and holistic education across the sciences, social sciences, arts, humanities, and sports for a multidisciplinary world.

vi. The framework enables a mix of arts, science, humanities, life skills including employability skills etc. Thus NCrF will encourage entire education system to be creative, innovative because of the multi-disciplinary approach to learning.

vii. NCrF will also enable inter-transfer of students / learners between different streams/ subject/ curriculums/institutions/universities/boards/and education systems within India and also with overseas/ international educational institutions.

viii. NCrF will bring connectivity and synergy in learning across all levels of education from school education to higher education.

ix. NCrF would enable availability of higher level vocational courses and qualification to students and learners enrolled in all higher education programmes, including the 3 or 4-year multidisciplinary Bachelor's programmes. The vocational education and skilling programs would also be available to students and learners and enrolled with NIOS, State Open Schools, adult literacy and life-enrichment programmes including availability of soft-skills and life-skills such as communication, cooperation, teamwork, and resilience.

x. NCrF would enable different models of vocational education, training and skilling, internships and apprenticeships, by school education institutions as well as higher education institutions.

xi. This Framework will provide the basis for Recognition of Prior Learning. Through NCrF, dropouts from the formal education system will be reintegrated into the mainstream by aligning their practical experience with the relevant level of the Framework and will also facilitate mobility across 'general' and 'vocational' education.

xii. NCrF considers the multiple reasons leading to School/ Higher Education dropouts and enables suitable entry and reintegration paths for them, both in general education and vocational education, training and skilling. NCrF, therefore, promotes universalization of education from pre-school to secondary level and ultimately to higher education by ensuring more students returning and joining mainstream.

xiii. NCrF is one single meta framework which is already aligned with all existing qualification frameworks including National Higher Education Qualification Framework (NHEQF) (by UGC/AICTE) and existing National Skills Qualification Framework (NSQF) (by NCVET).

xiv. NCrF will help in filling the gaps between current state of learning outcomes and what is desirable to enhance the employability of a student, while also ensuring that the time invested by a student in learning either via education or through experiential learning or work experience does not go unaccounted.

xv. NCrF will further strengthens and ensure implementation of the principles laid out in NEP. NCrF will enable improvement in the GER as has been envisaged by the Government.

xvi. The NCrF will enable multiple entry-multiple exit options across the education ecosystem. NCrF will promote lifelong learning by enabling students and learners to

earn and store credits in a 'Academic Bank of Credits' as well as redeem the accumulated credits certificate, diploma or degree.

xvii. NCrF will also help in addressing the long-standing issues associated with vocational education, training and skilling of not being aspirational. The NCrF permits mainstreaming of vocational programs with equal weightage and credits being given to vocational subject as to any other academic subject across school and higher education.

xviii. NCrF focuses on establishing equivalence between general education courses and vocational education programs thereby leading to seamless integration between general and vocational education and training/ skilling.

xix. NCrF is also easily adaptable by different streams like law, medical etc as required.

xx. NCrF addresses the difficulties students are facing in respect of equivalence of certificates issues by various School Education Boards in India and abroad for the purpose of admissions in higher education institutions and employment in Central/State Government/ in other countries.

xxi. NCrF will promote international equivalence of qualifications and courses as well as the mobility of students across international boundaries.

Table 10: Expected Outcomes of the National Credit Framework implementation

S No	NCrF BENEFICIARIES			
	STUDENTS	**INSTITUTIONS**	**GOVERNMENT**	**INDUSTRY**
1.	Creditization of all learning hours, including academic, vocational and Experiential learning including relevant experience and professional levels acquired,	Promotes unification of HEIs to promote multidisciplinary education	Increased enrolment of students (GER)	Short term future skills can be obtained as up-skilling
2.	Multidisciplinary and holistic education with flexible curricula	More diversified and rich student's knowledge base	Helps in fulfilling the national vision of complementing the demographic dividend	Re-Skilling and up-skilling of existing employees/ engineers
3.	Flexibility in duration of study/ courses through provisions of Multiple entry and exit / work option	Promotes stronger collaboration between institutions	To achieve Hon PM's Vision of making India the Skill capital of the World.	Allows students to attain NSQF approved foundational skills developed by industry & be more employable
4.	Provision for lifelong learning - any time anywhere learning	Simpler and uniform credit mechanism	Making vocational education and training/ skilling aspirational	Provision of Micro-credentials allows integration of quick educational upgradation/ up-skilling
5.	Removal of hard distinction between education stream thereby making study choices respectful and allowing for more than one award in same period.	Increased focus on research and innovation	Highly educated and trained workforce for Aatmanirbhar Bharat.	Helps cater to the future demand of skills and bridging skill gap
6.	Removes distinction between arts, science, social sciences, and commerce etc Students get credits for every academic/ skill/ experience	Promotes digital learning, blended learning and open distance learning	Could be extended to all kind of streams including agriculture, medical and law	Makes students more employable by more holistic design of study by including vocational education and training/ skilling
7.	Enhances the scope of core learning to include foundational and cognitive both.	Leveraging of institutional infrastructure		Have skill enhanced, multi/ cross-sectoral skilled pool of employable youth

Annexure I: Comparative Analysis of Credit Mechanism of IITs

	IIT Delhi	IIT Bombay	IIT Guwahati	IIT Madras
Credit Scheme	L-T-P (Lecture-Tutorial-Practical)	L-T-P (Lecture-Tutorial-Practical)	L-T-P (Lecture-Tutorial-Practical)	L-T-T-P (Lecture-Tutorial-Extended Tutorial-Practical)
Credit Weightage	Credits assigned to a course of format 3-1-2: L+T+P/2 = 3+1+2/2 = 5 credits I.e., 1 L = 1 credit 1 T = 1 credit 1P = 0.5 credit	1 L = 2 credit 1 T = 2 credit 1P = 1 credit	Credits assigned to a course of format 3-1-2: L+T+P/2 = 3+1+2/2 = 5 credits I.e., 1 L = 1 credit 1 T = 1 credit 1P = 0.5 credit	1 L = 1 hr = 1 credit 1 T 1 T 1P = 2.5 hr = 3 credits
Example: Engineering	1 Sem = 19 - 20 credits Total 148 -158 credits	1 Sem = 35 - 40 credits Total 280 -320 credits	1 Sem = 30 - 48 credits Total 240 -384 credits (5-6 courses/ semester)	NA

Annexure II: Types of Assessments
(Blended Learning Guidelines of NCVET)

1. **Assessment broadly can be classified into the following types:**

a. **Diagnostic assessments:** Diagnostic assessments are intended to help teachers identify what students know and can do in different domains to support their students' learning. These help teachers determine strengths of students in various areas to better address their specific needs.

b. **Formative assessments:** Formative assessment refers to a wide variety of methods that teachers use to conduct in-process evaluations of student comprehension, learning needs, and academic progress during a lesson, unit, or a course. Formative assessments help teachers identify concepts that students are struggling to understand, skills they are having difficulty acquiring, or learning standards they have not yet achieved so that adjustments can be made to lessons, instructional techniques, and academic support.

c. **Summative assessments:** Summative assessment is an assessment administered at the end of an instructional unit in a course. These assessments are intended to evaluate student learning by comparing performance to a standard or benchmark.

d. **Ipsative assessments:** Ipsative assessment involves comparisons between past and current work to identify a learner's growth over time, rather than progress toward an external set of criteria. Therefore, Ipsative assessment is an internal or self-referenced assessment.

e. **Norm-referenced assessments:** Norm-referenced tests report whether test takers performed better or worse than a hypothetical average student, which is determined by comparing scores against the performance results of a statistically selected group of test takers, typically of the same age or grade level, who have already taken the exam.

f. **Criterion-referenced assessments: Criterion-Reference tests measure** the performance of test takers against the criteria covered in the curriculum.

g. **Peer-to-Peer randomised Assessments:** Peers will be able to provide assessment in this case

h. **Industry Validation of Effectiveness**: In the Vocation Education, Industry validation of effectiveness of training is particularly important.

i. **Self-assessments:** To evaluate how much the learner has grasped by self-learning.

2. **Other Assessment Methods:** Conducting an assessment takes time, thought, attention, planning, and often collaboration. Each assessment tool, whether a short survey or detailed rubric, will be useful only insofar as it both addresses the outcomes well and is feasible to use.

a. **Rubrics: F**or assessing qualitative student work such as essays, projects, reports, or presentations. Rubrics serve well to clearly denote the specific expectations for an assignment, for collecting data for assessment of student learning outcomes. and for student performance. Rubrics can be used for grading, for providing feedback to students, and for informing and encouraging students to think about their own learning.

b. **Portfolios and E-Portfolio:** Portfolios can provide a window into the process of student learning across a semester-long project that can be assessed (usually by using a rubric).

c. **Curriculum Mapping:** A good curriculum map can serve to focus assessment, and the improvements that follow, where it will be most useful, informative, or effective.

d. **Structured Interviews:** While time-consuming, structured interviews are useful when specific questions need to be asked. It also leaves room for unplanned topics or ideas to emerge.

e. **Student Experience Surveys:** Student experience in research universities (SERU), including administration of on-line census SERU Undergraduate and Graduate Surveys, can yield important information about student perceptions and experiences.

Annexure III: Multiple Entry Multiple Exit options by UGC & AICTE

I. Multiple Entry Multiple Exit (ME-ME) - UGC

ACADEMIC LEVEL	ENTRY QUALIFICATION *	EXIT QUALIFICATION AND CREDITS required for the level	NATIONAL CREDIT LEVEL (NCrF)
	Higher Education		
UNDER-GRADUATE 1st year (B. General/ B. Voc)	12th pass certificate or equivalent state of education	Under-Graduate Certificate will be awarded and Minimum 40 credit-hours followed by an exit 4-credit skills-enhancement course	4.5
UNDER-GRADUATE 2nd year (B. General/ B. Voc)	Under-Graduate Certificate	Under-Graduate Diploma will be awarded and Minimum of 80 credit-hours followed by an exit 4-credit skills-enhancement course	5
UNDER-GRADUATE 3rd year (B. General/ B.Voc	Under-Graduate Diploma	Bachelor Degree will be awarded and Minimum of 120 credit-hours	5.5
UNDER-GRADUATE 4th year (B. General/ B.Voc)	Bachelor's Degree (3 year)	Bachelor's degree (Honors/ Honors with Research); and Minimum of 160 credits, with minimum of 40 credits each at level 4.5, 5, 5.5 and 6 of the NHEQF	6
POST GRADUATE DIPLOMA Or 1st year of 2- year PG program	Bachelor's degree (3 years)	Post Graduate Diploma after completion of 1st year of 2-year PG program; and Minimum of 40 credits for individuals who have completed a bachelor's programme	6.0
MASTERS (M. General / M. Voc) 2 year of master program	Bachelor degree (after 3 years of UG)	Master's degree; and Minimum of 80 credits from the first and second years of the program, with minimum of 40 credits in the first year and minimum of 40 credits in the second year of the program at level 6.5 on the NHEQF	6.5
MASTER'S (General/ M. Voc) One year program after 4 year UG	Bachelor's degree (honors/ honors with research) or Post Graduate Diploma	Master's degree; and Minimum of 40 credits for individuals who have completed a bachelor's degree (Honors/ Honors with Research)	6.5
Master's programme (Eng M.E., M. Tech	Bachelor's degree (honors/ honors with research)	Master's degree; and Minimum of 80 credits from the first and second years of the programme, with minimum of 40 credits in the first year and minimum of 40 credits in the second year of the programme at level 6 on the NHEQF	7
Ph.D.	PG Diploma OR Master's Degree OR a Bachelor's degree (honors with research)	Doctorate degree will include course work and a thesis with published work and/or creative work	8

**Admission will be open to those who have met the entrance requirements, including specified levels of attainment, in the programme admission regulations along with evaluation of documentary evidence (including the academic record and/or evidence relating to the assessment and validation of prior learning outcomes) of the applicant's ability to pursue an undergraduate programme of study.*

ii. MULTIPLE ENTRY- MULTIPLE EXIT (ME-ME) IN HIGHER EDUCATION- AICTE

Academic Level	Entry Qualifications at various levels.	Exiting Qualifications at various levels	National Credit Level (NCrF)
9th Grade	8 Grade pass	ξ 9th Class/ ξ 1 year of ITI after 8th class	**2.5**
10th Grade	◣ 9 grade pass ◣ 1 year of ITI after 8 grade pass	ξ 10th Class ξ 2 Year of ITI after 8th Class	**3.0**
11th Grade. **/1st yr. Diploma**	10 grade pass / 2 Year of ITI after 8 grade pass + NIOS	ξ Class 11 ξ Certificate of Voc. (Eng) ξ Class 11+ + QPs/ NOCs enabling lateral entry in 2nd Year of Certificate of Voc.	**3.5**
12th Grade. **/2nd yr. Diploma**	◣ 10+ Certificate of Voc ◣ Class 11 ◣ Class 11+ QPs &NOCs	ξ Class 12 ξ Industrial Training Certificate (Eng) ξ Class 12+ QPs and NOCs enabling entry in UG Certificate	**4.0**
Final yr. Diploma/ **1styr UG Degree**	◣ Class 12 ◣ 12+ Industrial Training Certificate (Eng) ◣ Class 12+ QPs & NOCs	UG Certificate (Eng.)	**4.5**
2ndyr UG Degree	UG Certificate (Eng.)	UG Diploma(Eng.)	**5.0**
3rdyr UG Degree	UG Diploma (Eng.)	B. Voc (Eng.)	**5.5**
Final yr UG **Degree**	B. Voc (Eng.)	B.E./B. Tech.	**6.0**
1st Year PG (Eng)	B.E./B. Tech.	M.Voc (Eng.)	**6.5**
2nd year PG (Eng)	M.Voc. (Eng.)	M. Tech	**7**
Ph.D.	M. Tech	Ph.D.	

Note:

At each entry, Institution/ University has to identify the educational gaps/ skill gaps and suitable bridge courses may be offered.

- *To make the students employable after every exit, the skill component with progressive enhancement in skills in respective disciplines may be introduced in the curriculum right from the 1st year of the program by the concerned regulatory body/ University/ Technical Board, as the case may be.*

- *The levels of exit, assessed through and learning outcomes are the basis of equivalency, not the duration of the courses. For example: Dual Degree etc.*

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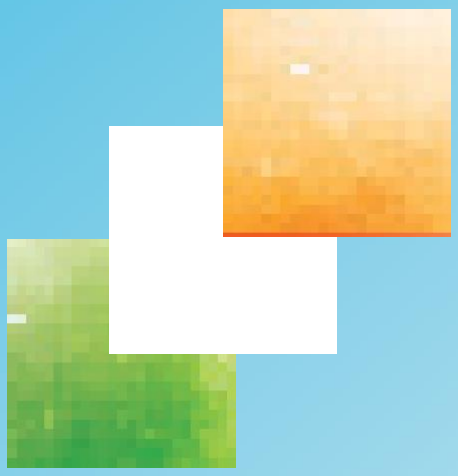




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National Higher Education Qualifications Framework (NHEQF)



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National Higher Education Qualifications Framework (NHEQF)

ज्ञान-विज्ञान विमुक्तये

University Grants Commission
Bahadur Shah Zafar Marg
New Delhi – 110002

Table of Contents

FOREWORD		01
1.1.	Introduction	02
1.2.	Policy directions that have implications for the structure of higher education institutions	03
1.3.	Policy directions pertaining to the thrust of education and curricular structures	04
1.4.	Policy directions guiding the structure and duration of degree programmes	06
2.1.	National Qualifications Frameworks: Global Initiatives	08
3.1.	National Qualifications Framework in India	12
3.1.1.	National Vocational Education Qualifications Framework (NVEQF)	12
3.1.2.	National Skills Qualifications Framework (NSQF)	12
4.1.	National Higher Education Qualifications Framework (NHEQF)	15
4.1.1.	The characteristics and purposes of the NHEQF	15
4.1.2.	Scope and coverage of the NHEQF	17
4.2.	Types and title/nomenclature of qualifications	18
4.2.1.	NHEQF levels	19
4.2.2.	Expected graduate attributes at different levels on NHEQF	20
4.2.3.	NHEQF level descriptors	24
4.2.3.1.	Learning outcomes descriptors for qualification at level 4.5 on the NHEQF	24
4.2.3.2.	Learning outcomes descriptors for qualifications at level 5 on the NHEQF	26
4.2.3.3.	Learning outcomes descriptors for a higher education qualification at level 5.5 on the NHEQF	28
4.2.3.4.	Learning outcomes descriptors for a higher education qualification at level 6 on the NHEQF	30
4.2.3.5.	Learning outcomes descriptors for a higher education qualification at level 6.5 on the NHEQF	34
4.2.3.6.	Learning outcomes descriptors for a higher education qualification at level 7 on the NHEQF	37
4.2.3.6.	Learning outcomes descriptors for a higher education qualification at level 8 on the NHEQF	40
4.2.4.	NHEQF level descriptors as a learning continuum	42
4.2.5.	The NHEQF qualification specifications	42
4.2.6.	Linkage between NHEQF Level Descriptors and Programme Learning Outcomes	44
4.2.7.	Course Learning Outcomes (CLOs)	44
4.3.	Academic credit framework for different types of qualifications within the NHEQF	45
4.4.	Components of programmes of study	45
4.5.	Credit accumulation and redemption	47
4.6.	Quality assurance mechanism	48
Definitions of terminologies/terms that are applicable to the NHEQF		50
Annexure I Learning Outcomes Descriptors for higher education qualificationat levels 4.5-8 on the NHEQF		55
Annexure II Exemplar Programme Learning Outcomes (PLOs)		65
ACKNOWLEDGEMENT		67

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FOREWORD

The National Education Policy (NEP) announced in 2020 marks a shift towards student centric approaches. Multidisciplinary education, multiple entry and exit system, integration with vocational education, and ensuring mobility between streams, and institutions, are some of the reforms envisioned in the NEP 2020. Classification of qualifications according to learning outcomes is central to many of these reforms. "Qualifications Framework," which provides for arranging the qualifications based on learning outcomes, is a method practiced worldwide to facilitate comparability and transparency. The formulation of the National Higher Education Qualifications Framework (NHEQF), accordingly, is a key recommendation of the NEP 2020 to move towards developing a nationally accepted and internationally comparable and acceptable qualifications framework.

The UGC constituted an expert committee to formulate NHEQF to enable prospective students, parents, higher education providers, and other stakeholders to understand the nature and level of the expected learning outcomes and competencies associated with higher education qualifications. With much pleasure, I present the National Higher Education Qualifications Framework to higher educational institutions for adoption.

I take this opportunity to thank the Chairman of the Expert Committee, Prof. V. S. Chauhan, and the members for drafting the NHEQF. I also thank the committee headed by Dr. N.S. Kalsi for integrating the levels of NHEQF with the National Credit Framework (NCrF). The contributions made by the officers from UGC are also acknowledged.

M Jagadesh Kumar

(Prof. M. Jagadesh Kumar)

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Section 1

1.1. Introduction

The National Education Policy (NEP) 2020 (hereafter referred to as NEP or the policy) envisages a new and forward-looking vision for India's higher education system. It recognizes that higher education plays an extremely important role in promoting human as well as societal well-being and in developing India as envisioned in its Constitution - a democratic, just, socially conscious, cultured, and humane nation upholding liberty, equality, fraternity, and justice for all. The NEP 2020 notes that "higher education significantly contributes towards sustainable livelihoods and economic development of the nation" and "as India moves towards becoming a knowledge economy and society, more and more young Indians are likely to aspire for higher education."

The NEP 2020 also states that "given the 21st century requirements, quality higher education must aim to develop good, thoughtful, well-rounded, and creative individuals" and... "must enable an individual to study one or more specialized areas of interest at a deep level, and also develop character, ethical and Constitutional values, intellectual curiosity, scientific temper, creativity, spirit of service, andtwenty-first-century capabilities across a range of disciplines including sciences, social sciences, arts, humanities, languages, as well as professional, technical, and vocational subjects." It also states that "a quality higher education must enable personal accomplishment and enlightenment, constructive public engagement, and productive contribution to the society" and must "prepare students for more meaningful and satisfying lives and work roles and enable economic independence."

The NEP 2020 also points out that at the societal level, higher education must enable the development of an enlightened, socially conscious, knowledgeable, and skilled nation that can find and implement robust solutions to its own problems. Higher education is expected to form the basis for knowledge creation and innovation thereby contributing to a growing national economy. It highlights that, "the purpose of quality higher education is more than the creation of greater opportunities for individual employment," and that higher education, "represents the key to more vibrant, socially engaged, cooperative communities and a happier, cohesive, cultured, productive, innovative, progressive, and prosperous nation."

The NEP 2020 envisages the formulation of expected learning outcomes for all higher education programmes. It states that "A National Higher Education Qualifications Framework (NHEQF) will

be formulated" and "it shall be in sync with the National Skills Qualifications Framework (NSQF) to ease the integration of vocational education into higher education." Additionally, it points out that "higher education qualifications leading to a degree/diploma/certificate shall be described by the NHEQF in terms of such learning outcomes." The Policy also envisages the setting up of facilitative norms for issues, such as credit transfer, and equivalence, through the NHEQF. The NEP 2020 also mandates relevant agencies, "to identify specific skills that students must acquire during their academic programmes, with the aim of preparing well-rounded learners with 21st century skills."

1.2. Policy directions that have implications for the structure of higher education institutions

The NEP 2020 calls for a complete overhaul and re-energizing of the higher education system to deliver high-quality higher education with equity and inclusion. The policy's vision includes several key changes to the current system such as:

- moving towards a higher educational system consisting of large, multidisciplinary universities and colleges, with at least one in or near every district, and with more higher education institutions (HEIs) across India that offer the medium of instruction or programmes in local/Indian languages;
- moving towards a more multidisciplinary undergraduate education; and
- revamping curriculum, pedagogy, assessment, and student support for enhanced student experiences.

The main thrust of the policy regarding higher education is to transform HEIs into large multidisciplinary universities, colleges, and HEI clusters/Knowledge Hubs. This is expected to help build vibrant communities of scholars and peers, enable students to become well-rounded across disciplines including artistic, creative, and analytic subjects as well as sports, develop active research communities across disciplines including cross-disciplinary research, and increase resource efficiency, both material and human, across higher education. Moving towards a large multidisciplinary university and HEI clusters with a more multidisciplinary undergraduate and graduate education is thus the major recommendation of the policy regarding the structure of higher education.

The proposed vision of higher education envisages a new conceptual perception/understanding for what constitutes a higher education institution (HEI), i.e., a university or a college. The term university is used to refer to a multidisciplinary institution of higher learning that offers undergraduate and graduate programmes, with high-quality teaching, research, and community engagement. This definition of 'university' thus allows a spectrum of institutions that range from:

- those that place equal emphasis on teaching and research referred to as research-intensive universities:
- those that place greater emphasis on teaching but still conduct significant research, referred to as teaching-intensive universities; and
- autonomous degree-granting colleges, which are large multidisciplinary institutions of higher learning that could award undergraduate degrees and are primarily focused on undergraduate teaching though it would not be restricted to teaching alone.

Over a period, it is envisaged that every college would develop into either an Autonomous degree-granting College or a constituent college of a university. With appropriate accreditations, autonomous degree-granting Colleges could evolve into Research-intensive or Teaching-intensive Universities, if they so aspire. Thus, the three broad types of institutions are not in any natural way a rigid, exclusionary categorization, but are along a continuum. HEIs will have the autonomy and freedom to move gradually from one category to another, based on their plans, actions, and effectiveness, and the focus of their goals and work. The accreditation system will develop and use appropriately different and relevant norms across this range of HEIs.

The NHEQF envisages increased flexibility and choice of courses of study by students, particularly at the undergraduate level. A wide choice of subjects and courses, from year to year, will be the new distinguishing feature of undergraduate education. Students who wish to change one or more of the opted courses within the programme (s) of study that they are pursuing may do so at the beginning of each year, as long as they are able to demonstrate the required prerequisites and the capability to attain the defined learning outcomes after going through the chosen programme and course (s) of study.

1.3. Policy directions pertaining to the thrust of education and curricularstructures

The NEP 2020 envisages a holistic and multidisciplinary education system that would aim to develop all capacities of human beings - intellectual, aesthetic, social, physical, emotional, ethical, and moral - in an integrated manner. Such education is expected to help develop well-rounded individuals that possess critical 21st century capacities in fields across the arts, humanities, languages, sciences, social sciences, and professional, technical, and vocational fields; an ethic of social engagement; soft skills, such as communication, discussion, and debate; and rigorous specialization in a chosen field or fields. Even engineering institutions are expected to move towards more holistic and multidisciplinary education with more arts, humanities, and social sciences. Students of arts and humanities are expected to learn more science, and all will try to incorporate more vocational subjects and soft skills. Such a holistic education shall be, in the long term, the

approach of all undergraduate programmes, including those in professional, technical, and vocational disciplines. This implies developing an enhanced higher education system consisting of large, multidisciplinary universities and colleges, and moving towards holistic and multidisciplinary education characterized by flexibility in curriculum and course options that would be on offer to students, in addition to rigorous specialization in the chosen disciplinary areas of study and work/vocation or professional practice. A holistic and multidisciplinary education is considered essential to lead the country into the 21st century and to prepare the students to respond to the requirements of the fourth industrial revolution.

The NEP 2020 envisages flexible curricular structures to enable creative combinations of disciplinary areas for study in multidisciplinary contexts, including vocational courses. It also envisages multiple entry and exit points and re-entry options, thus, creating new possibilities for life-long learning. Graduate-level, master's, and doctoral programmes of study in multidisciplinary universities, while providing rigorous research-based specialization, would also provide opportunities for multidisciplinary work, including in academia, government, and industry. Flexibility in curriculum and novel and engaging course options will be on offer to students, in addition to rigorous specialization in a chosen disciplinary area or areas of study, work/vocation, or professional practice. This will be encouraged by increased faculty and institutional autonomy in setting curricula. The pedagogy will have an increased emphasis on communication, discussion, debate, research, and opportunities for cross-disciplinary and interdisciplinary thinking.

Towards the attainment of such a holistic and multidisciplinary education, the flexible and innovative curricula of all HEIs shall include credit-based courses and projects in the areas of community engagement and service, environmental education, and value-based education. Environment education will include areas such as climate change, pollution, waste management, sanitation, conservation of biological diversity, management of biological resources and biodiversity, forest and wildlife conservation, and sustainable development and living. Value-based education will include the development of humanistic, ethical, constitutional, and universal human values of truth, righteous conduct, peace, love, nonviolence, scientific temper, citizenship values, and life- skills; lessons in service and participation in community service programmes will be considered an integral part of the holistic education. Global Citizenship Education and education for sustainable development will form an integral part of the curriculum to empower learners to become aware of and understand global and sustainable development issues and to become active promoters of more peaceful, tolerant, inclusive, secure, and sustainable societies. As part of holistic education, students at all HEIs will also be provided with opportunities for internships with local industries, businesses, artists, crafts persons, and so on, as well as research internships with faculty and

researchers at their own or other HEIs/research institutions, so that students may actively engage with the practical side of their learning and, as a by-product, further improve their employability.

1.4. Policy directions guiding the structure and duration of degree programmes

India has entered a stage of massification of higher education. In 2019-2020 the country had 1,043 universities and 42,343 colleges. In addition, there were 11,779 stand-alone institutions. HEIs in India vary in terms of the content and level at which courses are offered. Of the universities, 307 were affiliating universities having colleges affiliated with them. The total number of universities included 396 universities that were privately managed, 420 universities located in rural areas, and 17 universities exclusively for women. There existed one Central Open University, 14 State Open Universities, and one State Private Open University. There are 522 general, 177 technical, 63 agriculture and allied institutions, 66 medical, 23 law, 12 Sanskrit, 11 language universities ,and 145 universities in other categories. The total enrolment in higher education was around 38.5 million in 2019-2020, the Gross Enrolment Ratio (GER) for the population in the age group 18-23 years being 27.1 (male: 26.9; female: 27.3). Enrolment in distance education programmes constituted about 11.1% of the total enrolment in higher education. About 79.5% of the students were enrolled in undergraduate-level programmes.

The structure and duration of undergraduate programmes of study proposed by the NEP 2020 include:

- Undergraduate programmes of either 3 or 4-year duration, with multiple entry and exit options, with appropriate certifications:
- a certificate after completing 1 year (2 semesters) of study in the chosen discipline or field, including vocational and professional areas;
- a diploma after 2 years (4 semesters) of study;
- a Bachelor's degree after a 3-year (6 semesters) programme of study;
- a Bachelor's degree with honours after a 4-year (eight semesters) programme of study;
- a Bachelor's degree 'Honours with research' after a 4-year (eight semesters) programme of study if the student completes a rigorous research project in her/his major area(s) of study as specified by the HEI.

The 4-year multidisciplinary Bachelor's degree programme is considered as the preferred option since it would allow the opportunity to experience the full range of holistic and multidisciplinary education in addition to a focus on the chosen major and minors as per the choices of the student. An Academic Bank of Credit (ABC) has been established which would digitally store the academic credits earned from various recognized HEIs so that the degrees from an HEI can be awarded taking into account the credits earned.

The NEP 2020 envisages flexibility in the designs and duration of Master's degree programmes: The structure and duration of master's programmes of study proposed by the NEP 2020 include:

- a 2-year Master's programme (with the option of having the second year devoted entirely to research) for those who have completed a 3-year Bachelor's programme;
- a 1-year Master's programme for students who have completed a 4-year Bachelor's degree; and
- an integrated 5-year Bachelor's/Master's programme.
- A Ph.D. programme shall require a Master's degree or a 4-year Bachelor's degree.

Section 2

2.1. National Qualifications Frameworks: Global Initiatives

Qualifications are formal 'awards' such as a certificate, diploma, or a degree. Qualifications are awarded by a competent authority such as a college or university in recognition of the attainment by students of the expected learning outcomes on the successful completion of a particular programme of study. They are awarded after an assessment and evaluation of learning levels conducted by a competent body that determines the achievement by students of the expected learning outcomes to given standards. Qualifications in the traditional sense imply that someone has successfully completed a prescribed programme of study or training programme offered by an educational institution. Qualifications can also signify the competence to follow an occupational practice.

The university form was first conceived and perfected in ancient India, during this period, eighteen major institutional innovations were introduced at various points. These included the teaching of all subjects, creation of residential facilities, global interaction, secular education, peer review, case based reasoning, financial assistance, degrees, the introduction of libraries, codification of academic freedom, strict admission standards, public funding, endowments, competition amongst centres, autonomy, centralized academic administration, and women's education. Despite all the turbulence that India experienced during this time the system of universities nonetheless lasted over 1800 years.

A National Qualifications Framework (NQF) is an instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved, which would integrate and coordinate the qualifications from each education and training sector into a single comprehensive qualification framework. It is a way of structuring existing and new qualifications, which are defined by learning outcomes reflecting the graduate profile/attributes, programme learning outcomes, and course learning outcomes: i.e., statements of what the learner is expected to know, understand and/or be able to do and demonstrate on the successful completion of an approved programme of study/learning. The NQF helps: (a) improve the transparency of individual qualifications through the defined learning outcomes; (b) enhance the understanding of the education and training systems; (c) promote credit accumulation and transfer within and between programmes of study; (d) provide an instrument of accountability of the education and training systems; (e) make education and training systems more demand-focused and user friendly; (f) reduce the 'mismatch' between education and the labour market; and (g) facilitate the recognition of prior learning.

Qualification specifications are general statements of the typical achievement of learners who have been

awarded a qualification on successful completion of a programme of study leading to the award of qualifications such as a Certificate, Diploma, Bachelor's degree, Master's degree, and Doctoral degree. Competency-based education and training, and outcome-based learning constitute important aspects of a Qualifications Framework (QF). In the context of the Qualifications Framework, the knowledge, skills, values, and attitudes acquired/possessed by the individual student are more important than the mode(s) of acquiring them. It helps employers compare the diverse nature of qualifications through certain performance criteria that are to be considered while deciding on the learning outcomes for competency-based education and training. This principle was accepted by many countries and consequently many of them have been engaged in ways and means to improve the quality and relevance of education and training programmes to reflect competencies possessed by the graduates of different programmes of study. A qualifications framework provides a systematic description of the full range of qualifications in an education and training system. Qualifications need to be described in such a way as to help stakeholders understand the relationship between qualifications and the knowledge, skills, values, and attitudes that are expected to be acquired and demonstrated by an individual. QF is also intended to explain how different qualifications relate to each other and identify pathways within and across education and training sectors for vertical and horizontal mobility.

One of the factors that contributed to the initiatives for the development of the NQF was the evolution of the outcome-based approach to education and training introduced in the 1980s and early 1990s in some countries. The NQFs in these countries were in response to the demand by employers for greater participation in skill formation and to shape the content of education and training programmes. This resulted in a shift from the provider-defined curricula and qualifications to user-defined qualifications and curricula for education and training programmes. The movement to develop NQFs gained momentum in the late 1990s with the initiatives in several countries.

The NQFs differ from country to country with minor modifications that directly affect programmes of study but maintain the broad structure of the overarching framework. Amongthe international efforts, the Bologna Process, perhaps, is the most elaborate involving more countries than anywhere else. The Bologna process is an overarching framework under the European Higher Education Area (EHEA) for developing NQFs in European Union countries. A parallel development relating to the NQFs has been the efforts aimed at formulating the RegionalQualifications Frameworks (RQFs) in many regions of the world.

The European Qualifications Framework (EQF) was developed to compare and correlate and establish the diverse qualification systems of the European countries. The EQF also facilitates the translation or comparison of qualification levels, so that there is no difficulty in the identification of skills, inter-country comparisons and mobility of learners and workers between countries. One of the important elements of

the Bologna framework is the Qualification descriptors called the Dublin descriptors. The Dublin descriptors are general statements about the learning outcomes that are achieved by students after completing a curriculum of studies and obtaining a qualification. They are neither meant to be prescriptive rules, nor represent benchmarks or minimal requirements, since they are not comprehensive. The descriptors are conceived to describe the overall nature of the qualification. Furthermore, they are not limited to specific academic or professional areas. The Dublin Descriptors consists of five elements: i) Knowledge and understanding; ii) Applying knowledge and understanding; iii) Making judgments; iv) Communication skills; and v) Learning skills.

Qualifications that signify completion of the Bachelor's degree, as per the learning outcomes that are aligned to the Dublin descriptors, are awarded to students who: i) have demonstrated knowledge and understanding in a field of study that builds upon their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study; ii) can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study; iii) have the ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical issues; iv) can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences; v) have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.

Qualifications that signify completion of the Master's degree, as per the learning outcomes that are aligned to the Dublin descriptors, are awarded to students who: i) have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with the first cycle, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context; ii) can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study; iii) have the ability to integrate knowledge and handle complexity, and formulate judgments with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments; iv) can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously; v) have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.

Qualifications that signify completion of the doctoral degree, as per the learning outcomes that are aligned to the Dublin descriptors, are awarded to students who: i) have demonstrated a systematic understanding

of a field of study and mastery of the skills and methods of research associated with that field; ii) have demonstrated the ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity; iii) have made a contribution through original research that extends the frontier of knowledge by developing a substantial body of work, some of which merits national or international refereed publication; iv) are capable of critical analysis, evaluation and synthesis of new and complex ideas; v) can communicate with their peers, the larger scholarly community and with society in general about their areas of expertise; vi) can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society.

The Washington Accord originally signed among six countries in 1989, represents an International Agreement among bodies responsible for accrediting undergraduate engineering degree programme. It recognizes the substantial equivalency of programmes accredited by those bodies and recommends that graduates of programmes accredited by any of the signatory bodies be recognized by the other bodies as having met the academic requirements for entry to the practice of engineering in the area of their jurisdiction. The Washington Accord facilitates the mobility of engineering graduates and professionals at the international level. As of now, there are 21 nations that are members of the Washington Accord. India became a permanent member on 13th June 2014. On completion of six years, the status of the National Board of Accreditation (NBA) as a permanent signatory to the Washington Accord was extended for the next six years in June 2020 after a detailed review by an International Review Team appointed by the International Engineering Alliance, the Secretariat of Washington Accord. The membership of the Washington Accord is an international recognition of the quality of undergraduate engineering education offered by the member country and is an avenue to bring it into the world-class category. It encourages and facilitates the mobility of engineering graduates and professionals at the international Level. The NBA-accredited programmes offered by the Tier-I Institutions are eligible for recognition of the programmes by other signatories of the Washington Accord.

Section 3

3.1. National Qualifications Framework in India

India recognized the need for NQF both for general education and for vocational education and training (VET). The Ministry of Labour and Employment developed the National Vocational Qualifications Framework (NVQF) and the Ministry of Human Resource Development (renamed as Ministry of Education, after NEP 2020 recommendations) developed the National Vocational Education Qualifications Framework (NVEQF). These two frameworks were consideredand used while developing the National Skills Qualifications Framework (NSQF) notified in 2013.

3.1.1. National Vocational Education Qualifications Framework (NVEQF)

The NVEQF provided a descriptive framework that organized qualifications according to a series of levels of knowledge along with skills. These levels were defined in terms of learning outcomes i.e., the competencies that the learners must possess through the qualification system. The NVEQF attempted to provide a nationally integrated education and competency-based skills framework that provided for multiple pathways both within vocational education and between general and vocational education to link one level of learning to another higher level and enable learners to progress to higher levels from any starting point in the education and/or skill system. It was organized as a series of levels of competency/skills arranged in ascending order of complexity from levels 1 to 10. Each level on NVEQF was described by statements of learning called level descriptors. Qualifications were made up of occupation standards for specific areas of learning units for the job roles or occupations in the various sectors. This provides an opportunity to the stakeholders, such as the learners, education and skill training providers and employers to gain information about the broad equivalence of qualifications across specific skill sectors.

3.1.2. National Skills Qualifications Framework (NSQF)

The NSQF organizes qualifications according to a series of levels of knowledge, skills,and aptitude. This framework represents increasing levels of complexity in terms of the knowledge, competence, and autonomy that must be demonstrated by the learner. The levels aredefined by descriptors in the form of learning outcomes. Each level is defined by five parameters:

i) Process, comprising a general summary of the other four domains corresponding to the level.

ii) Professional knowledge that the learner needs to have at that level of the field of study/learning or work. Professional knowledge is what a learner should know and

understand with reference to the subject and/or field of knowledge. It is described in terms of depth, breadth, kinds of knowledge, and complexity. Depth of knowledge can be general or specialized; breadth of knowledge can range from a single topic to a multidisciplinary area of knowledge; kinds of knowledge range from concrete to abstract, from segmented to cumulative; and complexity of knowledge refers to the combination of kinds, depth, and breadth of knowledge.

iii) Professional skills which include what a learner should be able to do. These are described in terms of the kinds and complexity of skills and include (a) Cognitive and creative skills involving the use of intuitive, logical, and critical thinking; (b) Communication skills involving written, oral, literacy, and numeracy skills; (c)Interpersonal skills and generic skills that a learner should possess to perform a task or a job competently, productively, and independently and also as part of a team.

iv) Core skills which include basic skills involving dexterity and the use of methods, materials, tools, and instruments used for performing the job, including information technology (IT) skills, needed for a given level of study and work.

v) Responsibility that the learner can be entrusted with, on their own, the degree of supervision that a person needs when doing a job or the degree of supervision a person is capable of exercising over others, that is the level at which the learner can supervise others. The responsibility aspect of the NSQF determines a) the nature of working relationships, b) the level of responsibility for self and others, c) managing change, and d) accountability for actions.

The NSQF represents a nationally recognized competency-based framework that provides for multiple pathways of learning, horizontal as well as vertical, including vocational education, vocational training, general education, and technical education, thus linking one level of learning to another. This enables a person to acquire the desired competency levels, transit to the job/employment market, and acquire additional skills required to further upgrade his/her competencies later. It facilitates the awarding of credit and supports credit transfer and progression routes within the Indian education and training system. The NSQF links the various elements of vocational education and training with those of skills required by businesses and industry so that the vocational pass-outs can exit with employment-related skills. It envisages close partnership with the industry in the design, development, delivery, assessment, and certification of skills content.

More specifically, the objectives of the NSQF are to provide a framework that:

(i) accommodates the diversity of the Indian education and training systems; (ii) allows the development

of a set of qualifications for each level, based on outcomes that are accepted across the nation; (iii) provides a structure for the development and maintenance of progression pathways which provide access to qualifications and assist people to move easily and readilybetween different education and training sectors and between those sectors and the labour market; (iv) gives individuals an option to progress through education and training and gain recognition for their prior learning and experiences; v) underpins national regulatory and quality assurance arrangements for education and training; and vi) supports and enhances the national and international mobility of persons with NSQF-compliant qualifications through increased recognition of the value and comparability of Indian qualifications.

Section 4

4.1. National Higher Education Qualifications Framework (NHEQF)

The variation in types of HEIs in India results in a lack of comparability of outcomes associated with different qualifications across institutions. It constrains the mobility of students and their employability. Further, some of the Indian qualifications are not recognized abroad. Similarly, some of the qualifications from abroad are not recognized in India. It has been felt that given thesize of the higher education system and the diversity of institutions and programmes of study in India, the country needs to move towards developing a nationally accepted and internationally comparable and acceptable qualifications framework to facilitate transparency and comparability of higher education qualifications at all levels. The NHEQF is an attempt in this direction.

The NHEQF is an instrument for the development, classification, and recognition of qualifications along a continuum of levels from 4.5 to 8, with levels 1 to 4 in school education. Each level is structured based on the defined learning outcomes, i.e., statements of what the learner is expected to know, understand, and/or be able to do on the successful completion of an approved programme of study/learning at a specified level. Students on completion of the chosen programme(s) of study under the NHEQF must possess and demonstrate the graduate attributes defined in terms of the expected learning outcomes, whether they were acquired through one mode of learning or the other, or through a combination of different modes of learning such as direct in-person/face-to-face instruction, open and distance learning, online education, and hybrid/blended modes.

4.1.1. The characteristics and purposes of the NHEQF

The fundamental premise underlying the NHEQF is that higher education qualifications such as a certificate, diploma, and degree are awarded based on the demonstrated achievement of learning outcomes and academic standards expected of graduates of a programme of study. As in the case of all Qualifications Frameworks, the NHEQF is also an instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved along a continuum of agreed levels. It is a way of structuring existing and new qualifications, defined by expected learning outcomes which are used as reference points for formulating qualification specifications/descriptors. They provide general guidance for articulating the essential learnings associated with a programme of study and courses within that programme of study. The NHEQF represents a comprehensive framework that classifies qualifications based on a set of performance criteria, approved nationally and comparable with international quality standards. It specifies qualification types and framework levels and the expected learning outcomes corresponding to these

qualification types. Qualification type refers to the broad discipline-free nomenclature such as a Certificate, Diploma, Bachelor's degree, Master's Degree, and Doctoral Degree used in the NHEQF to describe each category of NHEQF qualification. Each qualification is aligned to an academic credit system based on the attainment of defined learning outcomes and the academic workload of students who complete the chosen programme(s) of study. The main purposes of the NHEQF are to:

- Provide an integrated national framework for recognizing and accrediting qualifications offered by different types of institutions engaged in higher education, including vocational education and training, and technical/professional education in India.
- Furnish higher education providers with points of reference when setting and assessing academic standards, designing curricula, teaching-learning-assessment strategies, and periodic review of programmes.
- Enable prospective students, parents, higher education providers, employers, and other stakeholders to understand the nature and level of the expected learning outcomes (knowledge, skills, attitudes, values, and competencies) and defined graduate attributes/profiles associated with the qualifications concerning higher education.
- Assist in the identification of potential progression pathways from one level of education to the higher level of education, including through multiple entry, exit, and re-entry points/ options, particularly in the context of lifelong learning.
- Help ensure the confidence of the public in higher education qualifications and academic standards by facilitating public understanding of the defined learning outcomes, graduate attributes/profile, and academic achievements expected of students completing specific programmes of study.
- Maintain national standards and international comparability of learning outcomes and academic standards to ensure global competitiveness, and to facilitate student mobility.
- Support the development and maintenance of pathways that provide access to qualifications and assist people to move between different education and training sectors and between those sectors and the labour market.
- Support individuals' lifelong learning goals and processes by providing the basis for their progression in education and training and gaining recognition for their prior learning and experiences.
- Guide quality assurance arrangements for education and training offered by higher education institutions.
- Support and enhance the national and international mobility of graduates and workers through increased recognition of the value and comparability of the qualifications

concerning higher education in India.

4.1.2. Scope and coverage of the NHEQF

The NHEQF envisages the award of qualifications based on the demonstrated achievement of the expected learning outcomes that specify what students completing a particular programme of study associated with the chosen fields of learning, work/vocation, or professional practice are expected to know, understand and be able to do at the end of their programme of study. In the context of the NHEQF, a 'field of learning' refers to the chosen disciplinary/interdisciplinary areas of learning in a broad multi-/ inter-/transdisciplinary context, work or technical and vocational education and training, or an area of professional practice.

NHEQF incorporates the qualifications from each education and training sector, including Technical and Vocational Education and Training (TVET) and professional and technical education programmes (except those relating to medical education and legal education), into a single comprehensive qualifications framework. The NHEQF reflects the learning outcomes and academic standards that the holders of the relevant qualification are expected to demonstrate.

It may be noted that the NHEQF is not intended to promote a uniform curriculum or national common syllabus for a programme of study or to prescribe a set of approaches to the teaching-learning process and assessment of student learning levels. The purpose is to bring up/elevate all HEIs to a common level of benchmarking to ensure that all institutions are providing quality education. The framework is intended to allow for flexibility and innovation in (i) the design of the programme of study and syllabi development, (ii) the teaching-learning process, (iii) assessment of students' learning levels, and (iv) periodic review of the programme(s)/courses of study within a broad framework of agreed expected programme/course learning outcomes and academic standard.

The NHEQF recognizes that each student has his/her own characteristics in terms of previous learning levels and experiences, life experiences, learning styles, and approaches to future career-related actions. The quality, depth, and breadth of the learning experiences made available to the students help develop their characteristic attributes. The graduate attributes reflect disciplinary knowledge, understanding, and skills related to the chosen field(s) of learning, generic learning outcomes that all students enrolled in different programmes of study should acquire/achieve and demonstrate. The institutions of higher education will have the autonomy to frame their own curriculum, including the syllabi, pedagogical approaches, and learning assessment procedures/ practices based on the NHEQF.

The NHEQF will be applicable to all the modes of learning along with regular face-to-face modes and would ensure both comparability and transferability not only between institutions but also across different delivery modes.

4.2. Types and title/nomenclature of qualifications

The NHEQF is an outcome-based framework for qualifications of different types. The qualification types and examples of title/nomenclature for qualifications within each type are indicated in Table 1.

Table 1: Types of qualifications and qualification title/nomenclature

Type of qualification	Qualification title/nomenclature and programme duration
Undergraduate Certificate	Undergraduate Certificate (Field of study/discipline). (Programme duration: First year (first two semesters) of the undergraduate programme, followed by an exit 4-credit skills-enhancement course(s).
Undergraduate Diploma	Undergraduate Diploma (Field of study/discipline). (Programme duration: First two years (first four semesters) of the undergraduate programme, followed by an exit 4-credit skills-enhancement course(s).
Bachelor's degree	Bachelor of (Field of study/discipline) the undergraduate programme Examples: • Bachelor of Arts (B.A.), Bachelor of Science (B.Sc.), Bachelor of Commerce (B.Com.), Bachelor of Vocation (B. Voc.), Bachelor ofBusiness Administration (BBA), Bachelor of Physical Education Programme duration: Three years (six semesters). • Bachelor of Education (B.Ed): Programme duration: Two years (four semesters) after completing a Bachelor's degree programme • Bachelor of Education (B.Ed.). Programme duration: One year (two semesters) after completing a Bachelor's degree (Honours/ Honours with Research) programme or Master's degree.
Bachelor's degree (Honours/ Honours with Research)	• Bachelor of (Field of study/discipline) (Honours/ Honours with Research). • 4-year dual-major Integrated Teacher Education Programme (ITEP): Programme duration: Four years (eight semesters). • Bachelor of Engineering (B.E), Bachelor of Technology (B.Tech.). Programme duration: Four years (eight semesters). • Bachelor of Architecture (B.Arch.): Five years (ten semesters). • Bachelor of Pharmacy (B.Pharm): Four years (eight semesters).
Post-Graduate Diploma	Post-Graduate Diploma in (Field of study/discipline). Programme duration: One year (two semesters) in the case of those who exit after successful completion of the first year (two semesters) of the 2-year master's degree programme

Type of qualification	Qualification title/nomenclature and programme duration
Master's degree	Master of (Field of study/discipline). Programme duration: Two years (four semesters) for those who have obtained a 3-year/6-semester bachelor's degree, or successfully completed a 4-year bachelor's degree (e.g. B.E., B. Tech., etc.) or a 4-year dual-major integrated teacher education programme with a B.A. B.Ed degree or B.Sc. B.Ed degree, or B.Com. B.Ed. degree. Master of (Field of study/discipline): Programme duration: One year (two semesters) in the case of those who have obtained a 4-year/8-semester Bachelor's (Honours/ Honours with Research) degree Examples • Master of Arts (M.A), Master of Commerce (M.Com.), Master of Science (M.Sc.), Master of Vocation (M.Voc.), Master of Business Administration (MBA). Programme duration: Two years (Four semesters) after obtaining a Bachelor's degree). • Integrated Bachelor's - Master's degree programmes. Programme duration: five years (ten semesters) after successfully completing secondary education (Grade 12 of school education) • Master of Education (M.Ed.). Programme duration: Two years (four semesters) after completing a 2-year/4-semester B.Ed. degree programme or a 4-year (8 semester) dual-degree integrated teacher education programme. • Integrated B.Ed. - M.Ed. programme. Programme duration: Three years (six semesters) after obtaining a Bachelor degree). • Master of Arts (Education). Programme duration: Two years (Four semesters) after completing a Bachelor's degree programme) • Master of Engineering (M.E), Master of Technology (M.Tech.). Programme duration: Two years (four semesters) after obtaining a Bachelor's degree in engineering/technology. • Master of Architecture. Programme duration: Two years (four semesters) after obtaining a B. Arch degree
Doctoral degree	• Doctor of Philosophy (Ph.D.)

4.2.1. NHEQF levels

The NHEQF levels represent a series of sequential stages expressed in terms of a range of learning outcomes against which typical qualifications are positioned/located. NHEQF level 4.5 represents learning outcomes appropriate to the first year (first two semesters) of the undergraduate programme of study, while Level 8 represents learning outcomes appropriate tothe doctoral-level programme of study (Table 2).

Table 2: Higher education qualifications at different levels on the NHEQF

NHEQF level	Examples of higher education qualifications located within each level
Level 4.5	Undergraduate Certificate. Programme duration: First year (first two semesters) of the undergraduate programme, followed by an exit 4-credit skills-enhancement course(s).
Level 5	Undergraduate Diploma. Programme duration: First two years (first four semesters) of the undergraduate programme, followed by an exit 4-credit skills-enhancement course(s) lasting two months.
Level 5.5	Bachelor's Degree. Programme duration: First three years (Six semesters) of the four-year undergraduate programme.

NHEQF level	Examples of higher education qualifications located within each level
Level 6	Bachelor's Degree (Honours/ Honours with Research). Programme duration: Four years (eight semesters).
Level 6	Post-Graduate Diploma. Programme duration: One year (two semesters) for those who exit after successful completion of the first year (two semesters) of the 2-year master's programme.
Level 6.5	Master's degree. (e.g. M.A., M.Com., M.Sc., etc.) Programme duration: Two years (four semesters) after obtaining a 3- year Bachelor's degree (e.g. B.A., B.Sc., B.Com. etc.).
Level 6.5	Master's degree. (e.g. M.A., M.Com., M.Sc., etc.) Programme duration: One year (two semesters) after obtaining a 4 -year Bachelor's degree (Honours/ Honours with Research) (e.g. B.A., B.Sc., B.Com. etc.).
Level 7	Master's degree.(e.g. M.E./M.Tech. etc.) Programme duration: Two years (four semesters) after obtaining a 4-year Bachelor's degree. (e.g. B.E./B.Tech. etc.)
Level 8	Doctoral Degree

4.2.2. Expected graduate attributes at different levels on NHEQF

The NHEQF envisages that students on completion of a programme of study must possess and demonstrate the expected graduate attributes acquired through one or more modes of learning, including direct in-person or face-to-face instruction, open and distance learning, online learning, and hybrid/blended modes. The graduate attributes indicate the quality and features or characteristics of the graduate of a programme of study, including learning outcomes relating to the disciplinary area(s) relating to the chosen field(s) of learning and generic learning outcomes that are expected to be acquired by a graduate on completion of the programme(s) of study.

The graduate profile/attributes include capabilities that help widen the current knowledge base and skills, gain and apply new knowledge and skills, undertake future studies independently, perform well in a chosen career, and play a constructive role as a responsible citizen in society. The graduate profile/attributes are acquired incrementally and describe a set of competencies that are transferable beyond the study of a particular subject/disciplinary area and programme contexts in which they have been developed. Graduate attributes are fostered through meaningful learning experiences made available through the curriculum and learning experience, the total college/university experience, and a process of critical and reflective thinking.

Graduate attributes include learning outcomes that are specific to disciplinary areas relating to the chosen field(s) of learning within broad multidisciplinary/interdisciplinary/ transdisciplinary contexts and generic learning outcomes that graduates of all programmes of study should acquire and demonstrate (Table 3).

Table 3: Graduate attributes

Type of learning outcomes	The Learning Outcomes Descriptors
Learning outcomes that are specific to disciplinary/ interdisciplinary areas of learning	Graduates should be able to demonstrate the acquisition of:
	a comprehensive knowledge and coherent understanding of the chosen disciplinary/interdisciplinary areas of study in a broad multidisciplinary context, their different learning areas, their linkages with related fields of study, and current and emerging developments associated with the chosen disciplinary/interdisciplinary areas of learning.
	Practical, professional, and procedural knowledge required for carrying out professional or highly skilled work/tasks related to the chosen field(s) of learning, including knowledge required for undertaking self-employment initiatives, and knowledge and mindset required for entrepreneurship involving enterprise creation, improved product development, or a new mode of organization.
	skills in areas related to specialization in the chosen disciplinary/interdisciplinary area(s) of learning in a broad multidisciplinary context, including wide-ranging practical skills, involving variable routine and non-routine contexts relating to the chosen field(s) of learning.
	capacity to extrapolate from what has been learnt, translate concepts to real-life situations and apply acquired competencies in new/unfamiliar contexts, rather than merely replicate curriculum content knowledge, to generate solutions to specific problems.
Generic learning outcomes	***Complex problem-solving:*** The graduates should be able to demonstrate the capability to: • solve different kinds of problems in familiar and non-familiar contexts and apply the learning to real-life situations.
	Critical thinking: The graduates should be able to demonstrate the capability to: • apply analytic thought to a body of knowledge, including the analysis and evaluation of policies, and practices, as well as evidence, arguments, claims, beliefs, and the reliability and relevance of evidence, • identify relevant assumptions or implications; and formulate coherent arguments, • identify logical flaws and holes in the arguments of others, • analyze and synthesize data from a variety of sources and draw valid conclusions and support them with evidence and examples.
	Creativity: The graduates should be able to demonstrate the ability to: • create, perform, or think in different and diverse ways about the same objects or scenarios, • deal with problems and situations that do not have simple solutions, • innovate and perform tasks in a better manner, • view a problem or a situation from multiple perspectives, • think 'out of the box' and generate solutions to complex problems in unfamiliar contexts, • adopt innovative, imaginative, lateral thinking, interpersonal skills and emotional intelligence.

	Communication Skills: The graduates should be able to demonstrate the skills that enable them to: • listen carefully, read texts and research papers analytically, and present complex information in a clear and concise manner to different groups/audiences, • express thoughts and ideas effectively in writing and orally and communicate with others using appropriate media, • confidently share views and express herself/himself, • construct logical arguments using correct technical language related to a field of learning, work/vocation, or an area of professional practice, • convey ideas, thoughts, and arguments using language that is respectful and sensitive to gender and other minority groups.
	Analytical reasoning/thinking: The graduates should be able to demonstrate the capability to: • evaluate the reliability and relevance of evidence; • identify logical flaws in the arguments of others; • analyze and synthesize data from a variety of sources; • draw valid conclusions and support them with evidence and examples, and addressing opposing viewpoints.
	Research-related skills: The graduates should be able to demonstrate: • a keen sense of observation, inquiry, and capability for asking relevant/ appropriate questions, • the ability to problematize, synthesize and articulate issues and design research proposals, • the ability to define problems, formulate appropriate and relevant research questions, formulate hypotheses, test hypotheses using quantitative and qualitative data, establish hypotheses, make inferences based on the analysis and interpretation of data, and predict cause-and-effect relationships, • the capacity to develop appropriate methodology and tools of data collection, • the appropriate use of statistical and other analytical tools and techniques, • the ability to plan, execute and report the results of an experiment or investigation, • the ability to acquire the understanding of basic research ethics and skills in practicing/doing ethics in the field/ in personal research work, regardless of the funding authority or field of study.
	Coordinating/collaborating with others: The graduates should be able to demonstrate the ability to: • work effectively and respectfully with diverse teams, • facilitate cooperative or coordinated effort on the part of a group, • act together as a group or a team in the interests of a common cause and work efficiently as a member of a team.
	Leadership readiness/qualities: The graduates should be able to demonstrate the capability for: • mapping out the tasks of a team or an organization and setting direction. • formulating an inspiring vision and building a team that can help achieve the vision, motivating and inspiring team members to engage with that vision. • using management skills to guide people to the right destination.
	'Learning how to learn' skills: The graduates should be able to demonstrate the ability to: • acquire new knowledge and skills, including 'learning how to learn' skills, that are necessary for pursuing learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social, and cultural objectives, and adapting to changing trades and demands of the workplace, including adapting to the changes in work processes in the context of the fourth industrial revolution, through knowledge/ skill development/reskilling,

	• work independently, identify appropriate resources required for further learning, • acquire organizational skills and time management to set self-defined goals and targets with timelines. • inculcate a healthy attitude to be a lifelong learner,
	Digital and technological skills: The graduates should be able to demonstrate the capability to: • use ICT in a variety of learning and work situations, • access, evaluate, and use a variety of relevant information sources, • use appropriate software for analysis of data.
	Multicultural competence and inclusive spirit: The graduates should be able to demonstrate: • the acquisition of knowledge of the values and beliefs of multiple cultures and a global perspective to honour diversity, • capability to effectively engage in a multicultural group/society and interact respectfully with diverse groups, • capability to lead a diverse team to accomplish common group tasks and goals. • gender sensitivity and adopt gender-neutral approach, as also empathy to the less advantaged and the differently-abled including those with learning disabilities.
	Value inculcation: The graduates should be able to demonstrate the acquisition of knowledge and attitude that are required to: • embrace and practice constitutional, humanistic, ethical, and moral values in life, including universal human values of truth, righteous conduct, peace, love, nonviolence, scientific temper, citizenship values, • practice responsible global citizenship required for responding to contemporary global challenges, enabling learners to become aware of and understand global issues and to become active promoters of more peaceful, tolerant, inclusive, secure, and sustainable societies, • formulate a position/argument about an ethical issue from multiple perspectives • identify ethical issues related to work, and follow ethical practices, including avoiding unethical behaviour such as fabrication, falsification or misrepresentation of data, or committing plagiarism, and adhering to intellectual property rights, • recognize environmental and sustainability issues, and participate in actions to promote sustainable development. • adopt objective, unbiased, and truthful actions in all aspects of work, • instill integrity and identify ethical issues related to work, and follow ethical practices.
	Autonomy, responsibility, and accountability: The graduates should be able to demonstrate the ability to: • apply knowledge, understanding, and/or skills with an appropriate degree of independence relevant to the level of the qualification, • work independently, identify appropriate resources required for a project, and manage a project through to completion, • exercise responsibility and demonstrate accountability in applying knowledge and/or skills in work and/or learning contexts appropriate for the level of the qualification, including ensuring safety and security at workplaces.

	Environmental awareness and action: The graduates should be able to demonstrate the acquisition of and ability to apply the knowledge, skills, attitudes, and values required to take appropriate actions for: • mitigating the effects of environmental degradation, climate change, and pollution, • effective waste management, conservation of biological diversity, management of biological resources and biodiversity, forest and wildlife conservation, and sustainable development and living.
	Community engagement and service: The graduates should be able to demonstrate the capability to participate in community-engaged services/ activities for promoting the well-being of society.
	Empathy: The graduates should be able to demonstrate the ability to identify with or understand the perspective, experiences, or points of view of another individual or group, and to identify and understand other people's emotions.

4.2.3. NHEQF level descriptors

Each NHEQF level is structured based on the defined learning outcomes which lead to the expected graduate attributes/profile. The level descriptors reflect the expected outcomes of learning that should be achieved and demonstrated by graduates of a specific programme of study leading to a qualification at a specific NHEQF level.

4.2.3.1. Learning outcomes descriptors for qualification at level 4.5 on the NHEQF

An Undergraduate Certificate is awarded to students who have demonstrated the achievement of the outcomes located at level 4.5 on the NHEQF.

Table 4: Descriptors for qualifications at levels 4.5 on the NHEQF

Element of the Descriptor	NHEQF level descriptors relating to undergraduate certificate
Knowledge and understanding	The graduates should be able to demonstrate the acquisition of: • knowledge of facts, concepts, principles, theories, and processes in broad multidisciplinary learning contexts within the chosen fields oflearning in broad multidisciplinary learning, • understanding of the linkages between the learning areas within and across the chosen fields of study, • procedural knowledge required for performing skilled or paraprofessional tasks associated with the chosen fields of learning.

General, technical and professional skills required to perform and accomplish tasks	The graduates should be able to demonstrate the acquisition of: • a range of cognitive and technical skills required for accomplishing assigned tasks relating to the chosen fields of learning in the context of broad multidisciplinary contexts. • cognitive skills required to identify, analyze and synthesize information from a range of sources. • cognitive and technical skills required for selecting and using relevant methods, tools, and materials to assess the appropriateness of approaches to solving problems associated with the chosen fields of learning.
Application of knowledge and skills	The graduates should be able to demonstrate the ability to: • apply the acquired operational or technical and theoretical knowledge, and a range of cognitive and practical skills to select and use basic methods, tools, materials, and information to generate solutions to specific problems relating to the chosen fields of learning.
Generic learning outcomes	The graduates should be able to demonstrate the ability to: • listen carefully, read texts related to the chosen fields of study analytically, and present information in a clear and concise manner to different groups/audiences. • express thoughts and ideas effectively in writing and orally and present the results/findings of the experiments carried out in a clear and concise manner to different groups.
	The graduates should be able to demonstrate the ability to: • meet one's own learning needs relating to the chosen fields of learning. • pursue self-directed and self-managed learning to upgrade the knowledge and skills required for a higher level of education and training.
	The graduates should be able to demonstrate the ability to: • gather and interpret relevant quantitative and qualitative data to identify problems, • critically evaluate principles and theories associated with the chosen fields of learning.
	The graduates should be able to demonstrate the ability to: • make judgment and take decisions, based on analysis of data and evidence, for formulating responses to issues/problems associated with the chosen fields of learning, requiring the exercise of some personal responsibility for action and outputs/outcomes.
Constitutional, humanistic, ethical, and moral values	The graduates should be able to demonstrate the willingness to: • practice constitutional, humanistic, ethical, and moral values in one's life, and practice these values in real-life situations, • put forward convincing arguments to respond to the ethical and moral issues associated with the chosen fields of learning.

Employability and job-ready skills, and entrepreneurship skills and capabilities/qualities and mindset	The graduates should be able to demonstrate the acquisition of: • knowledge and a basket of essential skills, required to perform effectively in a defined job relating to the chosen fields of study, • ability to exercise responsibility for the completion of assigned tasks and for the outputs of own work, and to take some responsibility for group work and output as a member of the group.
Credit requirements	• The successful completion of the first year (two semesters) of the undergraduate programme of minimum 40 credit hours followed by an exit 4-credit skills-enhancement course~~,~~
Entry requirements	• Certificate obtained after successful completion of Grade 12 or equivalent state of education. • Admission to the first year of the undergraduate programme will be open to those who have met the entrance requirements, including specified levels of attainment, in the programme admission regulations. Admission will be based on the evaluation of documentary evidence (including the academic record and/or evidence relating to the assessment and validation of prior learning outcomes) of the applicant's ability to pursue an undergraduate programme of study.

4.2.3.2. Learning outcomes descriptors for qualifications at level 5 on the NHEQF

An Undergraduate Diploma is awarded to students who have demonstrated the achievement of the outcomes located at level 5 on the NHEQF.

Table 5: Descriptors for qualifications at levels 5 on the NHEQF

Element of the Descriptor	NHEQF level descriptors
Knowledge and understanding	The graduates should be able to demonstrate the acquisition of: • theoretical and technical knowledge in broad multidisciplinary contexts within the chosen fields of learning, • deeper knowledge and understanding of one of the learning areas and its underlying principles and theories, • procedural knowledge required for performing skilled or paraprofessional tasks associated with the chosen fields of learning.
Skills required to perform and accomplish tasks	The graduates should be able to demonstrate the acquisition of: • cognitive and technical skills required for performing and accomplishing complex tasks relating to the chosen fields of learning, • cognitive and technical skills required to analyze and synthesize ideas and information from a range of sources and act on information to generate solutions to specific problems associated with the chosen fields of learning.

Application of knowledge and skills	The graduates should be able to demonstrate the ability to: • apply the acquired specialized or theoretical knowledge, and a range of cognitive and practical skills to gather quantitative and qualitative data, • select and apply basic methods, tools, materials, and information to formulate solutions to problems related to the chosen field(s) of learning.
Generic learning outcomes	The graduates should be able to demonstrate the ability to: • listen carefully, read texts related to the chosen fields of learning analytically, and present complex information in a clear and concise manner to different groups/audiences, • communicate in writing and orally the information, arguments, and results of the experiments and studies conducted accurately and effectively to specialist and non-specialist audiences. • meet one's own learning needs relating to the chosen field(s) of learning, work/vocation, and an area of professional practice, • pursue self-paced and self-directed learning to upgrade knowledge and skills required for pursuing a higher level of education and training. • critically evaluate the essential theories, policies, and practices by following a scientific approach to knowledge development. • make judgement and take decision, based on the analysis and evaluation of information, for determining solutions to a variety of unpredictable problems associated with the chosen fields of learning, taking responsibility for the nature and quality of outputs.
Constitutional, humanistic, ethical,and moral values	The graduates should demonstrate the willingness and ability to: • embrace the constitutional, humanistic, ethical, and moral values, practice these values in life, and take a position regarding these values, • formulate arguments in support of actions to address issues relating the ethical and moral issues relating to the chosen fields of learning,including environmental and sustainable development issues, from multiple perspectives.
Employability and job-ready skills, and entrepreneurship skills and capabilities/qualities and mindset	The graduates should be able to demonstrate the acquisition of knowledge and essential skill sets that are necessary to: • take up job/employment relating to the chosen fields of study or professional practice requiring the exercise of full personal responsibility for the completion of tasks and for the outputs of own work, and full responsibility for the group task/ work as a member of the group/team. • exercise self-management within the guidelines of study and work contexts. • supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities.
Credit requirements	The successful completion of the first two years (four semesters) of the undergraduate programme involving a minimum of 80 credit hours followed by an exit 4-credit skills-enhancement course.

Entry requirements	Continuation of study or lateral entry in the second year of the undergraduate programme will be possible for those who have met the entrance requirements, including specified levels of attainment, specified in the programme regulations. The continuation of the study will be based on the evaluation of documentary evidence (including the academic record and/or evidence relating to the assessment and certification of prior learning) of the applicant's ability to pursue an undergraduate programme of study. Lateral entry into the programme of study at NHEQF level 5 will be based on the validation of prior learning outcomes achieved, including those achieved outside of formal learning or through learning and training in the workplace or in the community, through continuing professional development activities, or through independent/self-directed learning activities.

4.2.3.3. Learning outcomes descriptors for a higher education qualification at level 5.5 on the NHEQF

The Bachelor's degree is awarded to students who have demonstrated the achievement of the outcomes located at level 5.5 on the NHEQF.

Table 6: Descriptors for qualifications at levels 5.5 on the NHEQF

Element of the descriptor	NHEQF level descriptors
Knowledge and understanding	The graduates should be able to demonstrate the acquisition of: • comprehensive, factual, theoretical, and specialized knowledge in broad multidisciplinary contexts with depth in the underlying principles and theories relating to one or more fields of learning. • knowledge of the current and emerging issues and developments within the chosen field(s) of learning. • procedural knowledge required for performing and accomplishing professional tasks associated with the chosen fields of learning.
General, technical and professional skills required to perform and accomplish tasks	The graduates should be able to demonstrate the acquisition of: • cognitive and technical skills required for performing and accomplishing complex tasks relating to the chosen fields of learning. • cognitive and technical skills required to evaluate and analyze complex ideas, • cognitive and technical skills required to generate solutions to specific problems associated with the chosen fields of learning.
Application of knowledge and skills	The graduates should be able to demonstrate the ability to: • apply the acquired specialized technical or theoretical knowledge, and cognitive and practical skills to gather and analyze quantitative/qualitative data to assess the appropriateness of different approaches to solving problems, • employ the right approach to generate solutions to problems related to the chosen fields of learning.

Generic learning outcomes	The graduates should be able to demonstrate the ability to: • listen carefully, to read text related to the chosen fields of learning analytically and present complex information in a clear and concise manner to different groups/audiences. • communicate in writing and orally the constructs and methodologies adopted for the studies undertaken relating to the chosen fields of learning, • make coherent arguments to support the findings/results of the study undertaken to specialist and non-specialist audiences. • meet one's own learning needs relating to the chosen field(s) of learning, • pursue self-paced and self-directed learning to upgrade knowledge and skills that will help adapt to changing demands of the workplace and pursuehigher level of education and training. • critically evaluate evidence for taking actions to generate solutions to specific problems associated with the chosen fields of learning based on empirical evidence. • make judgement and take decisions based on the analysis and evaluation of information for formulating responses to problems, including real-life problems, • exercise judgement across a broad range of functions based on empirical evidence, for determining personal and/or group actions to generate solutions to specific problems associated with the chosen fields of learning.

Element of the descriptor	NHEQF level descriptors
Constitutional, humanistic, ethical, and moral values	The graduates should be able to demonstrate the willingness and ability to: • Embrace constitutional, humanistic, ethical, and moral values, and practice these values in life. • identify ethical issues related to the chosen fields of study, • formulate coherent arguments about ethical and moral issues, including environmental and sustainable development issues, from multiple perspectives. • follow ethical practices in all aspects of research and development, including avoiding unethical practices such as fabrication, falsification or misrepresentation of data or committing plagiarism.
Employability and job-ready skills, and entrepreneurship skills and capabilities/ qualities and mindset	The graduates should be able to demonstrate the acquisition of: • knowledge and essential skills set and competence that are necessary totake up a professional job relating to the chosen field of learning and professional practice, • entrepreneurship skills and mindset required for setting up and running an economic enterprise or pursuing self-employment requiring the exercise of full personal responsibility for the outputs of own work, and full responsibility for the output of the group, • the ability to exercise management and supervision in the contexts of work or study activities involving unpredictable work processes and working environments.
Credit requirements	The successful completion of the first three years (six semesters) of the undergraduate programme involving a minimum of 120 credit hours
Entry requirements	Continuation of study or lateral entry into the third year of the undergraduate programme will be possible for those who have met the specified levels of attainment, specified in the programme admission regulations. The continuation of the study will be based on the evaluation of documentary evidence (including the academic record and/or evidence relating to the assessment and certification of prior learning) of the applicant's ability to pursue and complete the undergraduate programme of study. Lateral entry into the programme of study at NHEQF level 5.5 will be based on the validation of prior learning outcomes, including those achieved outside of formal learning or through learning and training in the workplace or in the community, through continuing professional development activities, or through independent/self-directed learning activities.

4.2.3.4. Learning outcomes descriptors for a higher education qualification at level 6 on the NHEQF

The Bachelor's degree (Honours/ Honours with Research) or the Post-Graduate Diploma is awarded to students who have demonstrated the achievement of the outcomes located at level 6 on the NHEQF.

Table 7: Descriptors for qualifications at levels 6 on the NHEQF

Element of the descriptor	NHEQF level descriptors
Knowledge and understanding	The graduates should be able to demonstrate the acquisition of: • advanced knowledge about a specialized field of enquiry, with depth in one or more fields of learning within a broad multidisciplinary/ interdisciplinary context. • a coherent understanding of the established methods and techniques of research and enquiry applicable to the chosen fields of learning. • an awareness and knowledge of the emerging developments and issues in the chosen fields of learning, • procedural knowledge required for performing and accomplishing professional tasks associated with the chosen fields of learning.
General, technical and professional skills required to perform and accomplish tasks	The graduates should be able to demonstrate the acquisition of: • a range of cognitive and technical skills required for performing and accomplishing complex tasks relating to the chosen fields of learning, • cognitive and technical skills relating to the established research methods and techniques, • cognitive and technical skills required to evaluate complex ideas and undertake research and investigations to generate solutions to real-life problems, • generate solutions to complex problems independently, requiring the exercise of full personal judgement, responsibility, and accountability for the output of the initiatives taken as a practitioner.
Application of knowledge and skills	The graduates should be able to demonstrate the ability to: • apply the acquired advanced technical and/or theoretical knowledge and a range of cognitive and practical skills to analyze the quantitative and qualitative data gathered drawing on a wide range of sources for identifying problems and issues relating to the chosen fields of learning, • apply advanced knowledge relating to research methods to carry out research and investigations to formulate evidence-based solutions to complex and unpredictable problems.
Generic learning outcomes	The graduates should be able to demonstrate the ability to: • listen carefully, read texts and research papers analytically, and present complex information in a clear and concise manner to different groups/ audiences, • communicate technical information and explanations, and the findings/ results of the research studies relating to specialized fields of learning, • present in a concise manner one's views on the relevance and applications of the findings of research and evaluation studies in the context of emerging developments and issues. • meet own learning needs relating to the chosen fields of learning, • pursue self-paced and self-directed learning to upgrade knowledge and skills that will help accomplish complex tasks and pursue a higher level of education and research.

Element of the descriptor	NHEQF level descriptors
	The graduates should be able to demonstrate: • a keen sense of observation, enquiry, and capability for asking relevant/ appropriate questions, • the ability to problematize, synthesize and articulate issues and design research proposals, • the ability to define problems, formulate appropriate and relevant research questions, formulate hypotheses, test hypotheses using quantitative and qualitative data, establish hypotheses, make inferences based on the analysis and interpretation of data, and predict cause-and-effect relationships, • the capacity to develop appropriate tools for data collection, • the ability to plan, execute and report the results of an experiment or investigation, • the ability to acquire the understanding of basic research ethics and skills in practicing/doing ethics in the field/ in own research work, regardless of the funding authority or field of study, • examine and assess the implications and consequences of emerging developments and issues relating to the chosen fields of study based on empirical evidence. • make judgement in a range of situations by critically reviewing and consolidating evidence, • exercise judgement based on evaluation of evidence from a range of sources to generate solutions to complex problems, including real-life problems, associated with the chosen field(s) of learning requiring the exercise of full personal responsibility and accountability for the initiatives undertaken and the outputs/outcomes of own work as well as of the group as a team member.
Constitutional, humanistic, ethical, and moral values	The graduates should be able to demonstrate the willingness and ability to: • Embrace and practice constitutional, humanistic, ethical, and moral values in life. • adopt objective, unbiased, and truthful actions in all aspects of work related to the chosen field(s) of learning and professional practice. • present coherent arguments in support of relevant ethical and moral issues. • participate in actions to address environmental and sustainable development issues. • follow ethical practices in all aspects of research and development, including avoiding unethical practices such as fabrication, falsification, or misrepresentation of data or committing plagiarism.
Employability and job-ready skills, and entrepreneurship skills and capabilities/qualities and mindset	The graduates should be able to demonstrate the acquisition of knowledge and skills required for: • adapting to the future of work and to the demands of the fast pace oftechnological developments and innovations that drive a shift in employers' demands for skills, particularly with respect to the transition towards more technology-assisted work involving the creation of new forms of work and rapidly changing work and production processes.

Element of the descriptor	NHEQF level descriptors
	• managing complex technical or professional activities or projects, requiring the exercise of full personal responsibility for the output of own work as well as for the outputs of the group as a member of the group/team. • exercising supervision in the context of work having unpredictable changes.
Credit requirements	Successful completion of the 4-year (eight semesters) undergraduate programme involving a minimum of 160 credits, with a minimum of 40 credits each at level 4.5, 5, 5.5, and 6 of the NHEQF. A 1-year/2-semester Post-Graduate Diploma programme builds on a 3-year/6-semester bachelor's degree and requires a minimum of 40 credits for individuals who have completed a Bachelor's programme.
Entry requirements	• An individual seeking admission to the bachelor's degree (Honours/ Honours with Research) in a specified field of learning would normally have completed all requirements of the relevant 3-year Bachelor's degree. (After completing the requirements of a 3-year bachelor's degree, candidates who meet a minimum 75% marks or its equivalent grade will be allowed to continue studies in the fourth year of the undergraduate programme leading to the bachelor's degree (Honours with Research). • Continuation of undergraduate programme leading to the bachelor's degree (Honours/ Honours with Research) will be open to those who have met the entrance requirements, including specified levels of attainment, in the programme admission regulations. Continuation of the programme of study will be based on the evaluation of documentary evidence (including the academic record and/or evidence relating to the assessment and certification of prior learning) of the applicant's ability to pursue study during the fourth year (semesters 7 & 8) of the 4-year Bachelor's degree (Honours/ Honours with Research) programme. Lateral entry into the programme of study at NHEQF level 6 will be based on the validation of prior learning outcomes, including those achieved outside of formal learning or through learning and training in the workplace, through continuing professional development activities, or through independent/self-directed/self-managed learning activities.

4.2.3.5. Learning outcomes descriptors for a higher education qualification at level 6.5 on the NHEQF

The Master's degree (e.g. M.A., M.Com., M.Sc., etc.) is awarded to students who have demonstrated the achievement of the outcomes located at level 6.5 on the NHEQF.

Table 8: Descriptors for qualifications at levels 6.5 on the NHEQF

Element of the descriptor	NHEQF level descriptors
Knowledge and understanding	The graduates should be able to demonstrate the acquisition of: • advanced knowledge about a specialized field of enquiry with a critical understanding of the emerging developments and issues relating to one or more fields of learning, • advanced knowledge and understanding of the research principles, methods, and techniques applicable to the chosen field(s) of learning or professional practice, • procedural knowledge required for performing and accomplishing complex and specialized and professional tasks relating to teaching, and research and development.
General, technical and professional skills required to perform and accomplish tasks	The graduates should be able to demonstrate the acquisition of: • advanced cognitive and technical skills required for performing and accomplishing complex tasks related to the chosen fields of learning. • advanced cognitive and technical skills required for evaluating research findings and designing and conducting relevant research that contributes to the generation of new knowledge. • specialized cognitive and technical skills relating to a body of knowledge and practice to analyze and synthesize complex information and problems.
Application of knowledge and skills	The graduates should be able to demonstrate the ability to: • apply the acquired advanced theoretical and/or technical knowledge about a specialized field of enquiry or professional practice and a range of cognitive and practical skills to identify and analyze problems and issues, including real-life problems, associated with the chosen fields of learning. • apply advanced knowledge relating to research methods to carry out research and investigations to formulate evidence-based solutions to complex and unpredictable problems.

Generic learning outcomes	The graduates should be able to demonstrate the ability to: • listen carefully, read texts and research papers analytically and present complex information in a clear and concise manner to different groups/audiences, • communicate, in a well-structured manner, technical information and explanations, and the findings/results of the research studies undertaken in the chosen field of study, • present in a concise manner view on the relevance and applications of the findings of recent research and evaluation studies in the context of emerging developments and issues. • evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples, and addressing opposing viewpoints. • meet one's own learning needs relating to the chosen fields of learning, work/vocation, and an area of professional practice, • pursue self-paced and self-directed learning to upgrade knowledge and skills, including research-related skills, required to pursue a higherlevel of education and research. • problematize, synthesize, and articulate issues and design research proposals, • define problems, formulate appropriate and relevant researchquestions, formulate hypotheses, test hypotheses using quantitative and qualitative data, establish hypotheses, make inferences based on the analysis and interpretation of data, and predict cause-and-effect relationships, • develop appropriate tools for data collection for research, • the ability to use appropriate statistical and other analytical tools and techniques for the analysis of data collected for research and evaluation studies, • plan, execute, and report the results of an investigation, • follow basic research ethics and skills in practicing/doing ethics in thefield/ in one's own research work. • make judgements and take decisions regarding the adoption of approaches to solving problems, including real-life problems, based on the analysis and evaluation of information and empirical evidence collected.

Element of the descriptor	NHEQF level descriptors
	• make judgement across a range of functions requiring the exercise of full responsibility and accountability for personal and/or group actions to generate solutions to specific problems associated with the chosen fields/subfields of study, work, or professional practice.
Constitutional, humanistic, ethical, and moral values	The graduates should be able to demonstrate the willingness and ability to: • embrace and practice constitutional, humanistic, ethical, and moral values in one's life, • adopt objective and unbiased actions in all aspects of work related tothe chosen fields/subfields of study and professional practice, • participate in actions to address environmental protection and sustainable development issues, • support relevant ethical and moral issues by formulating and presenting coherent arguments, • follow ethical principles and practices in all aspects of research and development, including inducements for enrolling participants, avoiding unethical practices such as fabrication, falsification or misrepresentation of data or committing plagiarism.
Employability and job-ready skills, and entrepreneurship skills and capabilities/qualities and mindset	The graduates should be able to demonstrate the acquisition of knowledge and skill sets required for: • adapting to the future of work and responding to the demands of the fast pace of technological developments and innovations that drive the shift in employers' demands for skills, particularly with respect to the transition towards more technology-assisted work involving the creation of new forms of work and rapidly changing work and production processes. • exercising full personal responsibility for the output of own work as well as for group/team outputs and for managing work that is complex and unpredictable requiring new strategic approaches.
Credit requirements	• A 1-year/2-semester master's programme builds on a bachelor's degree with Honours/ Honours with Research and requires a minimum of 40 credits for individuals who have completed a Bachelor's degree (Honours/ Honours with Research). • The 2-year/4-semester Master's programme builds on a 3-year/6-semester bachelor's degree and requires a total of a minimum of 80 credits from the first and second years of the programme, with a minimum of 40 credits in the first year and minimum of 40 credits in the second year of the programme at level 6.5 on the NHEQF.
Entry requirements	• A 3-year Bachelor's degree for the 2-year/4-semester Master's degree programme (e.g. M.A., M.Com., M.Sc., etc.). • A 4-year Bachelor's Degree for the 1-year/2-semester Master's programme (e.g. M.A., M.Com., M.Sc., etc.).

Element of the descriptor	NHEQF level descriptors
	• Admission to a programme of study leading to the Master's degree is open to those who have met the entrance requirements, including specified levels of attainment, specified in the programme admission regulations. Admission will be based on the evaluation of documentary evidence (including the academic record and/or evidence relating to the assessment and certification of prior learning) indicating the applicant's ability to pursue postgraduate study.

4.2.3.6. Learning outcomes descriptors for a higher education qualification at level 7 on the NHEQF

The Master's degree (e.g. M.E./M.Tech. etc.) is awarded to students who have demonstrated the achievement ofthe outcomes located at level 7 on the NHEQF.

Table 8: Descriptors for qualifications at levels 7 on the NHEQF

Element of the Descriptor	NHEQF level descriptors
Knowledge and understanding	The graduates should be able to demonstrate the acquisition of: • advanced knowledge about a specialized field of enquiry with a critical understanding of the emerging developments and issues relating to one or more fields of learning, • advanced knowledge and understanding of the research principles, methods, and techniques applicable to the chosen field(s) of learning or professional practice, • procedural knowledge required for performing and accomplishing complex and specialized and professional tasks relating to teaching, and research and development.
General, technical and professional skills required to perform and accomplish tasks	The graduates should be able to demonstrate the acquisition of: • advanced cognitive and technical skills required for performing and accomplishing complex tasks related to the chosen fields of learning. • advanced cognitive and technical skills required for evaluating research findings and designing and conducting relevant research that contributes to the generation of new knowledge. • specialized cognitive and technical skills relating to a body of knowledge and practice to analyze and synthesize complex information and problems.

Application of knowledge and skills	The graduates should be able to demonstrate the ability to: • apply the acquired advanced theoretical and/or technical knowledge about a specialized field of enquiry or professional practice and a range of cognitive and practical skills to identify and analyze problems and issues, including real-life problems, associated with the chosen fields of learning. • apply advanced knowledge relating to research methods to carry out research and investigations to formulate evidence-based solutions to complex and unpredictable problems.
Generic learning outcomes	The graduates should be able to demonstrate the ability to: • listen carefully, read texts and research papers analytically, and present complex information in a clear and concise manner to different groups/audiences, • communicate, in a well-structured manner, technical information and explanations, and the findings/results of the research studies undertaken in the chosen field of study, • present in a concise manner view on the relevance and applicationsof the findings of recent research and evaluation studies in the contextof emerging developments and issues. • evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples, and addressing opposing viewpoints. • meet one's own learning needs relating to the chosen fields of learning, work/vocation, and an area of professional practice, • pursue self-paced and self-directed learning to upgrade knowledge and skills, including research-related skills, required to pursue higher level of education and research. • problematize, synthesize, and articulate issues and design research proposals, • define problems, formulate appropriate and relevant research questions, formulate hypotheses, test hypotheses using quantitative and qualitative data, establish hypotheses, make inferences based on the analysis and interpretation of data, and predict cause-and-effect relationships, • develop appropriate tools for data collection for research, • the ability to use appropriate statistical and other analytical tools andtechniques for the analysis of data collected for research and evaluation studies, • plan, execute, and report the results of an investigation, • follow basic research ethics and skills in practicing/doing ethics in the field/ in one's own research work. • make judgements and take decisions regarding the adoption of approaches to solving problems, including real-life problems, based on the analysis and evaluation of information and empirical evidence collected.

Element of the Descriptor	NHEQF level descriptors
	• make judgement across a range of functions requiring the exercise of full responsibility and accountability for personal and/or group actions to generate solutions to specific problems associated with the chosen fields/subfields of study, work, or professional practice.
Constitutional, humanistic, ethical, and moral values	The graduates should be able to demonstrate the willingness and ability to: • embrace and practice constitutional, humanistic, ethical, and moral values in one's life, • adopt objective and unbiased actions in all aspects of work related tothe chosen fields/subfields of study and professional practice, • participate in actions to address environmental protection and sustainable development issues, • support relevant ethical and moral issues by formulating and presenting coherent arguments, • follow ethical principles and practices in all aspects of research and development, including inducements for enrolling participants, avoiding unethical practices such as fabrication, falsification or misrepresentation of data or committing plagiarism.
Employability and job-ready skills, and entrepreneurship skills and capabilities/qualities and mindset	The graduates should be able to demonstrate the acquisition of knowledge and skills set required for: • adapting to the future of work and responding to the demands of the fast pace of technological developments and innovations that drive shift in employers' demands for skills, particularly with respect to the transition towards more technology-assisted work involvingthe creation of new forms of work and rapidly changing work andproduction processes. • exercising full personal responsibility for the output of own work as well as for group/team outputs and for managing work that are complex and unpredictable requiring new strategic approaches.
Credit requirements	• The 2-year/4-semester Master's programme (e.g., M.E., M.Tech. etc.) builds on a 4-year/8-semester bachelor's degree (e.g. B.E., B.Tech. etc.) and requires a total of minimum of 80 credits from the first and second years of the programme, with minimum of 40 credits in the first year and minimum of 40 credits in the second year of the programme at level 6 on the NHEQF.
Entry requirements	• A 4-year Bachelor's degree (e.g. B.E., B.Tech. etc.) for the 2-year/4-semester Master's programme (e.g. M.E., M. Tech. etc.).

Element of the descriptor	NHEQF level descriptors
	• Admission to a programme of study leading to the Master's degree is open to those who have met the entrance requirements, including specified levels of attainment, specified in the programme admission regulations. Admission will be based on the evaluation of documentary evidence (including the academic record and/or evidence relating to the assessment and certification of prior learning) indicating the applicant's ability to pursue postgraduate study.

4.2.3.6. Learning outcomes descriptors for a higher education qualification at level 8 on the NHEQF

Doctoral Degree is awarded to students who have demonstrated the achievement of the outcomes located at level 8 on the NHEQF.

Table 9: Descriptors for qualifications at level 8 on the NHEQF

Element of the descriptor	NHEQF level descriptors
Knowledge and understanding	The graduates should be able to demonstrate the acquisition of: • highly specialized knowledge, including knowledge at the most advanced frontiers of the chosen fields of study. • mastery of the established research methods and techniques applicable to the chosen fields of learning. • procedural knowledge required by personnel engaged in complex research and development activities.
General, technical and professional skills required to perform and accomplish tasks	The graduates should be able to demonstrate the acquisition of: • most advanced and highly specialized cognitive and technical skills required for performing and accomplishing complex tasks related to research and development that make original contributions to knowledge, professional practice, and innovations. • cognitive and technical skills required for conceptualizing, designing, and implementing fundamental and/or applied research at the forefront of the chosen field(s) of learning to generate original knowledge. • cognitive and technical skills required for doing transdisciplinary research.
Application of knowledge and skills	The graduates should be able to demonstrate the ability to: • apply the acquired highly specialized knowledge, skills, and methods of research to design and conduct original and high quality disciplinary or multidisciplinary or interdisciplinary research to generate evidence-based solutions to complex problems, including real-life problems, relating to the chosen field(s) of study.

Element of the descriptor	NHEQF level descriptors
Generic learning outcomes	The graduates should be able to demonstrate the ability to: • listen carefully, read texts and research papers analytically, and present complex information in a clear and concise manner to non-specialist and specialist groups/audiences. • present, in a well-structured and logical manner, technical information and explanations pertaining to the results/findings of research studies undertaken. • present views on the relevance and application of recent research and their applications in the context of the emerging developments and issues related to the chosen field(s) of study or professional practice. • meet own learning needs relating to research and investigations in the chosen fields of study. • pursue self-paced and self-directed learning to upgrade knowledge and skills, including research-related skills, required to pursue higher level of research related to new frontiers of knowledge. • critically analyze and synthesize a body of knowledge in their major and allied fields, identify critical gaps and ask new questions, develop new tools and techniques of data gathering and analysis, and at the end of it be able to conduct research independently. • evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples and addressing opposing viewpoints. • make judgements and take decisions regarding the formulation of responses to problems, including real-life problems, based on the analysis and evaluation of information and empirical evidence relating to the problems. • make significant judgment across a broad range of functions requiring the exercise of responsibility for determining personal and/or group actions to generate solutions to specific problems associated with the chosen field(s) of study, work/vocation, or professional practice.
Constitutional, humanistic, and ethical and moral values	The graduates should be able to demonstrate the willingness and ability to: • practice constitutional, humanistic, ethical, and moral values in life, adopt objective and unbiased actions in all aspects of work, • identify ethical issues related to the chosen fields of research, including those relating to environmental and sustainable development issues, • follow ethical practices in all aspects of research and development, including avoiding practices such as fabrication, falsification or misrepresentation of data or committing plagiarism, and not adhering to intellectual property rights, • acquire the understanding of basic research ethics and skills in practicing/doing ethics in the field/in own research work, regardless of the funding authority or field of study.

Element of the descriptor	NHEQF level descriptors
Employability and job-ready skills, and entrepreneurship skills and capabilities/ qualities and mindset	The graduates should be able to demonstrate the acquisition of knowledge and essential skill sets required for: • adapting to the future of work and responding to the demands of the fastpace of technological developments and innovations that drive shift in skill needs relating to work and professional practices, including those relating to teaching, research, and development, • exercising full personal responsibility for outputs/outcomes of own work and outputs/outcomes of group efforts, • exercising substantial authority, innovation, autonomy, professional integrity, and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research.
Credit requirements	• The major feature of all doctorate degrees is original research. The body of work that leads to the award of a doctorate degree will include coursework and a thesis with published work and/or creative work (for example, in the case of visual or performing arts).
Entry requirements	• A graduate of a 1-year/2-semester Master's programme, or a 2-year/ 4-semester Master's programme, or a 4-year/8- semester Bachelor's degree • Admission to a programme of study leading to the doctoral degree is open to those who have met the entrance requirements, including specified levels of attainment, in the programme admission regulations. Admission will be based on the evaluation of documentary evidence (including the academic record and/or evidence relating to the assessment and certification of prior learning) of the applicant's ability to pursue study for a doctoral degree relating to a specialized field of enquiry.

4.2.4. NHEQF level descriptors as a learning continuum

Each NHEQF level represents a different level of complexity in learning outcomes. Level 4.5 of the NHEQF represents learning outcomes appropriate to the first year of the undergraduate programme of study, while Level 8 represents learning outcomes with the greatest complexity appropriate to the doctoral-level programme of study (Annexure I). The qualifications within each NHEQF level involve different volumes of learning as well as differences in the range of expected outcomes of learning related to the chosen fields of learning within broad multi-/inter-/transdisciplinary contexts. NHEQF levels reflect the relative complexity and/or depth of achievement and the autonomy required of graduates to demonstrate that achievement. The learning outcomes descriptors for a higher education qualification at different levels on the NHEQF reflect the developmental and learning continuum from NHEQF levels 4.5 to 8.

4.2.5. The NHEQF qualification specifications

The NHEQF qualification specifications (Table 10) for the certificate, diploma, and degree programmes inform the design and accreditation of qualifications used by the standard-setting and accrediting authorities in the higher education sub-sector, industry, and professional bodies, regulatory bodies, students, and employers.

Table 10. NHEQF Qualification specifications

Qualification type	Purpose of the qualification
Undergraduate Certificate	The certificate (in a field of learning or a disciplinary area) qualifies students who can apply technical and theoretical concepts and specialized knowledge and skills in a broad range of contexts to undertake skilled or paraprofessional work and/or to pursue further study/learning at higher levels.
Undergraduate Diploma	The diploma (in a field of learning or a disciplinary area) qualifies students who can apply specialized knowledge in a range of contexts to undertake advanced skilled or paraprofessional work and/or to pursue further learning/study at higher levels.
Bachelor's degree	The bachelor's degree qualifies students who can apply a broad and coherent body of knowledge and skills in a range of contexts to undertake professional work and/or for further learning.
Bachelor's degree (Honours/ Honours with Research)	Bachelor's degree (Honours): Prepare individuals who can apply a body of knowledge in a specific context to undertake professional work and for research and further learning.
	Bachelor's degree (Honours with Research): Prepare individuals who can apply an advanced body of knowledge in a range of contexts to undertake professional work and apply specialized knowledge and skills for research and scholarship, and/or for further learning relating to the chosen field(s) of learning, work/vocation, or professional practice.
Post-Graduate Diploma	The Post-Graduate Diploma qualifies students who can apply a body of advanced knowledge and skills in a range of contexts to undertake professional or highly skilled work and/or further learning.
Master's degree(1 year/2 semesters of study)	The Master's degree qualifies students who can apply an advanced body of knowledge in a range of contexts for professional practice, research, and scholarship and as a pathway for further learning. Graduates at this level are expected to possess and demonstrate specialized knowledge and skills for research, and/or professional practice and/or for further learning.
Master's degree(2 years /4 semesters of study)	The Master's degree qualifies students who can apply an advanced body of knowledge in a range of contexts for professional practice, research, and scholarship and as a pathway for further learning. Graduates at this level are expected to possess and demonstrate specialized knowledge and skills for research, and/or professional practice and/or for further learning. Master's degree holders are expected to demonstrate the ability to apply the established principles and theories to a body of knowledge or an area of professional practice.
Doctoral degree	The Doctoral degree qualifies students who can ask relevant and new questions and develop appropriate methodologies and tools for collecting information in pursuit of generating new knowledge and new data sets; and apply a substantial body of knowledge to undertake research and investigations to generate new knowledge, in one or more fields of inquiry, scholarship or professional practice. Graduates at this level is expected to have a systematic and critical understanding of a complex field of learning and specialized research skills for the advancement of knowledge and/or professional practice and making a significant and original contribution to the creation of new knowledge relating to a field of learning or in the context of an area of professional practice.

4.2.6. Linkage between NHEQF Level Descriptors and Programme Learning Outcomes

The outcomes described in NHEQF level descriptors are attained by students through learning acquired on the completion of a programme of study relating to the chosen fields of learning, work/vocation, or an area of professional practice. The term 'programme' refers to the entire scheme of study followed by learners leading to a qualification. Individual programmes of study will have defined learning outcomes that must be attained for the award of a specific certificate/diploma/degree.

The curriculum development agencies are responsible for ensuring that individual programme learning outcomes align with the relevant qualification descriptor in the relevant NHEQF level. Programme learning outcomes (PLOs) include outcomes that are specific to disciplinary areas of learning associated with the chosen field (s) of learning, work/vocation, or professional practice. They also include generic learning outcomes, including transferable skills and competencies, that graduates of all programmes of study should acquire and be able to demonstrate for the award of the Certificate/Diploma/Degree. The programme learning outcomes would also focus on knowledge and skills that prepare students for further study, employment, and responsible citizenship. They would help ensure comparability of learning levels and academic standards across colleges/universities in India and provide a broad picture of the level of competence of graduates of a given programme of study. A programme of study may be related to monodisciplinary, multidisciplinary or interdisciplinary–areas of learning; work or vocational education; or technical/professional education or an area of professional practice. Some exemplar PLOs are given in Annexure II.

4.2.7. Course Learning Outcomes (CLOs)

The programme learning outcomes are attained by learners through the essential learnings acquired on the completion of selected courses of study within a programme of study. The term 'course' is used to mean the individual courses of study that make up the scheme of study for a programme.The curriculum development agencies are expected to consider the relevant programme learning outcomes when setting the course learning outcomes for the undergraduate certificate/diploma, Bachelor's degree, Bachelor's degree with honours/ honours with research or master's degree programmes.

Course learning outcomes are specific to the learning for a given course of study related to a disciplinary or interdisciplinary/multi-disciplinary–area of learning. Some courses of study are highly structured, with a closely laid down progression of compulsory/core courses to be taken at different phases/stages of learning. The NHEQF envisages programmes that would allow learners much more freedom to take a combination of courses of study within the multidisciplinary contexts according to the preferences of the individual student that may be very different from the courses of study pursued by another student of the same programme.

Course-level learning outcomes are expected to be aligned with relevant programme learning outcomes. At the course level, each course may well have links to some but not all graduate attributes as these are developed through the totality of student learning experiences across the period/ semesters of their study. Some examples, of course, learning outcomes are given in Annexure I.

4.3. Academic credit framework for different types of qualifications within the NHEQF

The NHEQF facilitates the awarding of academic credit and supports credit transfer and progression routes within the Indian education and training system. It seeks to help everyone involved in education and training to make comparisons between qualifications offered by different types of higher education institutions in the country and to understand how these relate to each other. Theworkload is described in terms of credits and the credit is defined mostly in terms of learner-engaged time. A course is measured in terms of credit hours based on the amount of workload and learner-engaged time. A credit framework indicates the time invested, and the workload for each of the credits earned by the individual. The credit framework will facilitate credit accumulation and transfer.

A credit is a unit by which the coursework is measured. It determines the number of hours of instruction required per week over the duration of a semester. For example, a three credit lecture course in a semester means three one-hour lectures per week with each one-hour lecture counted as one credit. In a semester of 15 weeks duration, a three credit lecture course is equivalent to 45 hours of teaching. A one credit of tutorial work means one-hour engagement per week. In a semester of 15 weeks duration, a one credit tutorial in a course is equivalent to 15 hours of engagement. A one credit course in practicum or lab work, community engagement and services, and field work in a semester means two-hour engagement per week. In a semester of 15 weeks duration, a one credit practicum in a course is equivalent to 30 hours of engagement. A one credit of Seminar or Internship or Studio activities or Field practice/projects or Community engagement and service means two-hour engagement per week. Accordingly, in a semester of 15 weeks duration, a one credit in these courses is equivalent to 30 hours of engagement.

The NHEQF envisages different modes in which the programmes of study at undergraduate and post-graduate levels can be offered. These include direct in-person/face-to-face instruction, open and distance learning, online education, and hybrid/blended modes. The credit framework would facilitate all these modes of learning. A student will receive the credits linked to a course on the successful completion of a programme of study in an academic term of 15-16 weeks (for example, a semester) and not less than 10 weeks (for example, a trimester) and based on the number of hours of teaching/guidance specified below, in any of the approved modes of study.

4.4. Components of programmes of study

The following types of courses/activities may be used to build programmes of study. Each of them will require specific number of hours of teaching/guidance/practicum, in any of the modes of learning, and laboratory/studio/workshop activities, field-based learning/projects, and internships/ community engagement and service.

- Lecture courses: Courses involving lectures relating to a field or discipline by an expert or qualified personnel in a field of learning, work/vocation or professional practice
- Laboratory/Practicum work/ studio/workshop-based activities: A course requiring students to participate in a project or practical or lab activity that applies previously learned/studied principles/theory related to the chosen field of learning, work/vocation or professional practice under the supervision of an expert or qualified individual in the field of learning,

work/vocation or professional practice.

- Field-based learning/projects, internships, and community engagement and service:
- Courses requiring students to participate in field-based learning/projects generally under the supervision of an expert of the given external entity.
- Community Engagement: -
- Courses requiring students to participate in field-based learning/projects generally under the supervision of an expert of the given external entity. The curricular component of 'community engagement and service' will involve activities that would expose students to the socio-economic issues in society so that the theoretical learnings can be supplemented by actual life experiences to generate solutions to real-life problems.

Table 11: Qualification Type and Credit Requirements

NHEQF levels	Qualification title/nomenclature	Credit Requirements (Minimum)
Level 4.5	Undergraduate Certificate (in the field of learning/discipline) for those who exit after the first year (2 semesters) of the undergraduate programme. (Programme duration: First year or 2 semesters of the undergraduate programme)	40 credits
Level 5	Undergraduate Diploma (in the field of learning/discipline) for those who exit after the first two years (4 semesters) of the undergraduate programme (Programme duration: First two years or 4 semesters of the undergraduate programme)	80 credits
Level 5.5	Bachelor's Degree (examples: Bachelor of Arts; Bachelor of Science; Bachelor of Commerce; Bachelor of Physical Education; Bachelor of Business Administration, etc. (Programme duration: Three years or 6 semesters).	120 credits
Level 5.5	Bachelor of Vocation (B.Voc). (Programme duration: 3 years or 6 semesters).	120 credits
Level 6	Bachelor of Engineering (B.E.); Bachelor of Technology (B.Tech.) (Programme duration: Four years or 8 semesters.	160 credits
Level 6	B.A., B.Ed.; B.Sc., B.Ed.; B.Com., B.Ed. (4-year dual-degree Integrated Teacher Education Programme)	160 credits)
Level 6	Bachelor's Degree (Honours/ Honours with Research). (Programme duration: Four years or 8 semesters).	160 credits
Level 6	Post-Graduate Diploma. For those who exit after successful completion of the first year or two semesters of the 2-year master's programme). (Programme duration: One year or 2 semesters).	40 credits
Level 6.5	Master's degree. (e.g. M.A.; M.Com., M.Sc.; etc.) (Programme duration: Two years or four semesters after obtaining a 3-year Bachelor's degree).	80 credits

NHEQF levels	Qualification title/nomenclature	Credit Requirements (Minimum)
Level 6.5	Master's degree (e.g. M.A.; M.Com., M.Sc.; etc.) (Programme duration: One year or 2 semesters after obtaining a 4- year Bachelor's degree (Honours/ Honours with Research).	40 credits
Level 7	Master's degree (e.g. M.E.; M.Tech. etc.) (Programme duration: Two years or four semesters after obtaining a Bachelor's degree (e.g. B.E., B.Tech.etc.).	80 credits
Level 8	Doctoral degree	Credits for courseworkand, a thesis and published work

Table 12. Letter Grades and Grade Points

Letter Grade	Grade Point
O (outstanding)	10
A+ (Excellent)	9
A (Very good)	8
B+ (Good)	7
B (Above average)	6
C (Average)	5
P (Pass)	4
F (Fail)	0
Ab (Absent)	0

For non-credit courses 'Satisfactory' or 'Unsatisfactory' will be indicated instead of the letter grade and this will not be counted for the computation of SGPA/CGPA. The universities or the autonomous colleges can decide on the grade or percentage of marks required to pass in a course and the CGPA required to qualify for a Certificate/Diploma/Degree taking into consideration the recommendations of the relevant standard setting body.

4.5. Credit accumulation and redemption

The NHEQF helps facilitate multiple entry, multiple exit, and re-entry options for students at the undergraduate and master's levels. It would facilitate credit accumulation through the facility created by the Academic Bank of Credit (ABC) scheme in the "Academic Bank Account" opened by students across the country to transfer and consolidate the credits earned by them by undergoing courses in any of the eligible (HEIs). The ABC allows for credit redemption through the process of commuting the accrued credits in the Academic Bank Account maintained in the ABC for the

purpose of fulfilling the credits requirements for the award of Certificate/Diploma/ Degree by the authorized HEIs such as the universities or the autonomous colleges. However, the validity of credits earned and kept in the Academic Credit Account will be to a maximum period of seven years or as specified by the ABC for different disciplinary or fields of learning to allow the redemption of credits after the date of earning such credits. After seven years, re-entry into a programme of study will be based on the validation of prior learning outcomes. Lateral entry into the programme of study at a particular NHEQF level will be based on the validation of prior learning outcomes, including those achieved outside of formal learning or through learning and training in the workplace or in the community, through continuing professional development activities, or through independent/self-directed/self-managed learning activities.

4.6. Quality assurance mechanism

A quality assurance framework is integral to the integrity of the programmes of study evolved based on the NHEQF, and the recognition of the qualifications listed on it. The Indian higher education sub-sector has put in place a mechanism and approach to quality assurance. The approach seeks to support the development and enhancement of a quality culture in HIEs. There is a strong emphasis on: focusing on learner achievement and outcomes for learners; the use of evidence to improve outcomes for learners and other stakeholders; accountability through a tertiary education organization being able to demonstrate that what it is doing is effective.

The National Assessment and Accreditation Council (NAAC) was established by the UGC in 1994 for evaluating the performance of the universities and colleges in the country. NAAC's mandate includes the task of performance evaluation, assessment, and accreditation of universities and colleges in the country. The philosophy of NAAC is based on objective and continuous improvement rather than being punitive or judgemental so that all institutions of higher learning are empowered to maximize their resources, opportunities, and capabilities. Assessment is a performance evaluation of an institution and /or its units and is accomplished through a process based on self-study and peer review using defined criteria. Accreditation refers to the certification given by NAAC which is valid for a period of five years.

In pursuance of its Action Plan for performance evaluation, assessment and accreditation, and quality up-gradation of institutions of higher education, the NAAC envisages that every accredited HEI should establish an Internal Quality Assurance Cell (IQAC) as a post-accreditation quality sustenance measure. Since quality enhancement is a continuous process, the IQAC functions as a part of the institution's system and works towards realization of the goals of quality enhancement and sustenance. The prime task of the IQAC is to develop a system for conscious, consistent, and catalytic improvement in the overall

performance of institutions.

The guidelines provided in the following pages will guide and facilitate the institution in the creation and operation of the Internal Quality Assurance Cell (IQAC). The work of the IQAC is the first step towards the internalization and institutionalization of quality enhancement initiatives. Its success depends upon the sense of belongingness and participation it can inculcate in all the constituents of the institution. It will not be yet another hierarchical structure or a record-keeping exercise in the institution. It will be a facilitative and participative voluntary system/unit/organ of the institution. It has the potential to become a vehicle for ushering in quality enhancement by working out planned interventionist strategies to remove deficiencies and enhance quality like the "Quality Circles" in industries. The primary objectives of the IQAC is to develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institution, and to promote measures for institutional functioning towards quality enhancement through the internalization of quality culture and institutionalization of best practices.

The key functions of the IQAC include the development and application of quality benchmarks/parameters for various academic and administrative activities of the institution; arrangement for feedback response from students, parents, and other stakeholders on quality-related institutional processes; dissemination of information on various quality parameters of higher education; organization of inter-and intra-institutional workshops, seminars on quality related themes and promotion of quality circles; documentation of the various programmes/ activities leading to quality improvement; acting as a nodal agency of the institution for coordinating quality-related activities, including the adoption and dissemination of best practices; and the development and maintenance of institutional database through Management Information System for the purpose of maintaining /enhancing the institutional quality; and the development of a Quality Culture in the institution.

Definitions of terminologies/terms that are applicable to the NHEQF

Academic credit or credit: Recognition of the verified achievement of learning outcomes indicating that a learner has successfully completed a prior programme/course of learning relating to the chosen programme (s) of study associated with a field of learning, work, or professional practice corresponding to a qualification at a specified level. Academic credit or credit is a unit by which the course work is measured. It determines the number of hours of instructions required per week. For example- a three credit course in a semester means three one-hour lectures per week with each one-hour lecture counted as one credit.

Academic standards: The standards that individual certificate/diploma/degree-awarding bodies set for the award of their academic credits or qualifications. They include the standards of performance that a student needs to demonstrate to achieve a particular level of qualification. Letter grades on a 9-point scale such as O (outstanding), A+ (Excellent), A (Very good), B+(Good), B (Above average), C (Average), P (Pass), F (Fail) and Ab (Absent) represents an index of the performance of students in a specific course of study.

Accountability: The extent to which an individual is required to account for his or her performance in work or learning contexts, for the outputs/outcomes of the initiatives taken, and/or for the application of knowledge and/or skills to generate solutions to problems that are appropriate for the level of the qualification.

Accreditation: The process for approval by an accrediting authority of a programme of study leading to a qualification indicated in the NHEQ, using the quality assurance standards specified for the relevant education and training sector.

Accrediting authority: An authority that is either authorized under legislation or has been given the responsibility to accredit programmes of study leading to qualifications indicated in the NHEQF.

Advanced knowledge and/or skills: Knowledge and skills that have been acquired beyond the attainment of a previous learning and qualification level.

Application of knowledge, understanding, and/or skills: The use of the acquired knowledge, understanding and skills related to the chosen fields/subfields of study, work, or professional practice to solve a problem involving the exercise of autonomy, personal responsibility and accountability for the completion of a task or an activity and for the outputs/outcome of own work.

Area of learning or work: A sub-category of a field of learning or work.

Assessment: The process of determining a student's achievement of expected learning outcomes involving the use of a range of methods and practices.

Autonomy in the application of knowledge, understanding, and/or skills: The ability to apply knowledge, understanding and/or skills with an appropriate degree of independence relevant to the level of the qualification.

Award of a qualification: Award of qualification occurs when a student has met the requirements of the qualification and the qualification is certified by a competent body the provision of qualification.

Basic knowledge and/or skills: The knowledge and/or skills that form a starting point or basis for pursuing a programme of learning related to a field/subfield of study/learning, work, or professional practice.

Body of knowledge: The complete set of concepts, principles, theories, processes, methods,techniques, and activities that make up a field of study/learning, work, or professional practice.

Broad knowledge and/or skills: A general or extensive area of learning related to a field/ subfield of

study, work, or professional practice.

Certificate/Diploma/Degree-awarding bodies: A higher education provider (typically an autonomous college or university or a stand-alone institution in the Indian Context) with the power to award Certificates/Diplomas/Degrees.

Cognitive skills: The mental skills and processes that are used in the acquisition and application of knowledge. Cognitive processes include mental processes such as recognition, recall, seeing relationships, citing examples, distinguishing, classifying, interpreting, generalizing, reasoning, formulating and establishing hypotheses, inferring, predicting cause and effect relationships etc.

Coherent knowledge and/or skills: Knowledge and/or skills that are logically ordered, sound, and/or integrated.

Communication skills: The skills that enable a person to listen carefully, to read texts and research papers analytically; to present/communicate information in writing and orally in a concise manner to different groups/audiences; and to construct logical arguments using correct technical language related to a field of study/learning, work, or practice.

Competence: The proven ability to use human capacities related to intellectual, physical, social, emotional, ethical, and moral reasoning in the discharge of responsibility roles and doing a job related to the chosen fields/subfields of study/learning, work, or professional practice.

Comprehensive knowledge and/or skills: Knowledge or skills that cover a complete area of a field/sub field of study/learning, work, or professional practice.

Creative skills: Skills that may lead to innovative, imaginative, and artistic outputs.

Credit transfer: A process that provides students with agreed and consistent credit outcomes for components of a qualification based on identified equivalence in content and learning outcomes between matched qualifications.

Cumulative Grade Point Average (CGPA): A measure of the overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all semesters.It is expressed up to two decimal places.

Depth of knowledge/skills: Knowledge/skills involving an advanced degree of difficulty or complexity.

Exit qualification: A qualification that may be awarded on completion of an intermediate point of studies, that is after two semesters or four semesters of study in a six-semester Bachelor's degree programme or after two semesters of study in a four-semester Master's degree programme.

Expert knowledge and/or skills: The highest level of knowledge and skills underpinned by the ability based on research, experience, or occupation in a particular area of study.

Field of learning: The focus of activities relating to a programme of study, work/vocation or professional practice. In the context of the NHEQF, a field of learning involves a programme of study relating to chosen disciplinary/interdisciplinary area(s) of study, work or technical and vocational education and training, or an area of professional practice.

Framework levels: A series of sequential stages expressed in terms of a range of outcomes against which typical higher education qualifications can be positioned. NHEQF levels reflect the relative complexity and/or

depth of learning achievement and the competence required for taking responsibility and exercising autonomy required of graduates to demonstrate that achievement. The NHEQF is characterized by seven levels, with level 4.5 having the lowest complexity and level 8 having the highest complexity.

Generic learning outcomes: The transferrable, non-discipline specific skills that students of all programmes of study need to achieve through the appropriate learning experience. Generic learning outcomes include those that have application in the study, work, professional practice, and life contexts. Some of the generic learning outcomes include complex problem solving, critical thinking, creativity, coordinating/collaborating with others and capacity to work in teams; judgment and decision making; service orientation; negotiation skills; cognitive flexibility; learning skills including "Learning to learn capability"; communication skills; digital literacy and skills; leadership readiness/skills; capability for self-directed work and self-management, making judgements; capability for functioning effectively in multicultural and multilingual contexts and ethical and moral awareness and reasoning.

Grade Point: A numerical weightage allotted to each letter grade on a 10-point scale. Letter Graderepresents an index of the performance of students in a specific course.

Graduate: A person who has been awarded a qualification by an authorized organization.

Graduate attributes: The quality and feature or characteristics of an individual, including the knowledge, skills, attitudes, and values that are expected to be acquired by a graduate through studies at the HEI such as a college or university. The graduate attributes include capabilities that help strengthen abilities for widening current knowledge base and skills, gaining new knowledge and skills, undertaking future studies, performing well in a chosen career, and playing a constructive role as a responsible citizen in society. The graduate attributes also describe a set of characteristics/competencies that are transferable beyond the study of a particular subject area and programme contexts in which they have been developed. Graduate attributes are fostered through meaningful learning experiences made available through the curriculum, the total college/university experiences, and a process of critical and reflective thinking.

Knowledge: The outcome of the learning process indicating what a learner should demonstrate in terms of the recognition and recall of facts, concepts, principles, theories, and practices relatedto the chosen fields of study and/or work or professional practice. Knowledge could be theoretical and/or factual. It can be described in terms of (a) depth of knowledge that can be general or specialized, (b) breadth of knowledge that can range from a single disciplinary area to multidisciplinary areas of learning, (c) kinds of knowledge ranging from concrete to abstract, or from segmented to cumulative, and (d) complexity of knowledge involving a combination of kinds, depth, and breadth of knowledge.

Learning outcomes: Statements of what a learner knows, understands, and is able to do on completion of a learning process and a programme/course of study.

Level descriptors: A statement of the generic outcomes of learning at a specific level of a qualifications framework.

Mastery of knowledge: The attributes of a graduate who demonstrates comprehensive knowledge and understanding of a field of study/learning, work, or professional practice.

Minimum acceptable level of academic standards: The minimum acceptable level of achievement that a student must demonstrate to be eligible for the award of academic credit or qualification for example, Grade P (Pass) in a grade classification criteria/system involving grades O (Outstanding), A+ (Excellent), A (Very good), B+ (Good), B (Above average), C (Average), P (pass), F (Fail), and Ab (Absent).

For equivalent qualifications, the acceptable level of achievement needs to be agreed upon across HEIs in India.

National qualifications system: The institutional arrangements, mechanisms and processes related to the quality assurance, assessment and recognition of learning that leads to the award of qualifications.

National qualifications framework: An instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved, which would integrate and coordinate the qualifications from each education and training sector into a single comprehensive qualification framework.

NHEQF qualification: The result of an accredited programme of study/learning that leads to formal certification that a graduate has achieved the learning outcomes as specified in the NHEQF.

Practical knowledge and skills: Knowledge and skills that are concrete in nature, also referred as hands-on knowledge and skills.

Programme learning outcomes: Statements of what a learner is expected to know, understand and/or be able to do after completion of a designated programme of study/ learning which leads to the award of a qualification. Programme learning outcomes include subject-specific and generic learning outcomes, the achievement of which the students of a specific programme of study/learning should be able to demonstrate for the award of a certificate/Diploma/Degree, as well as the knowledge and skills that prepare students for further study, employment, and responsible citizenship. Programme learning outcomes help ensure comparability of learning levels and academic standards across colleges/universities and provide a broad picture of the level of competence of graduates of a given programme of study. A programme of study may be monodisciplinary, multi-disciplinary, inter-disciplinary or transdisciplinary.

Programme of study/learning: The entire scheme of study, including research programmes, that provide a coherent learning experience leading to the attainment of defined learning outcomes that are required for the award of a qualification such as a certificate, diploma, or a degree. The outcomes described in qualification descriptors are attained by students through learning acquired on completion of a programme of study. Individual programmes of study will have defined learning outcomes, which must be attained by a student for the award of a specific certificate/diploma/degree.

Qualification: A certificate, diploma or a degree awarded by a competent authority such as a college or university in recognition of the attainment by students of the expected learning outcomes on successful completion of a particular higher education programme of study and awarded after an assessment and evaluation of learning levels conducted by a competent body that determines that a student has achieved the expected learning outcomes to given standards.

Qualification types: Sequential levels of qualifications such as the Certificate (Higher education) awarded on completion of the first year of undergraduate education programme, Diploma (Higher education) awarded on completion of the second year of undergraduate education programme, 3-year Bachelor's degree, 4-year Bachelor's degree (Honours/ Honours with Research), Post-Graduate Diploma awarded on completion of the first year of 2-year master's degree programme, 1-year Master's degree awarded to those who have undergone a 4-year Bachelor's degree (Honours/ Honours with Research) programme, 2-year Master's degree awarded to those who have undergone a 3-year Bachelor's degree programme, 2-year Master's degree (e.g. M.E., M.Tech. etc.) awarded to those who have undergone a 4-year Bachelor's degree programme (e.g. B.E., B.Tech. etc.) and doctoral degrees.

Qualification descriptor: Generic statements of the defined outcomes that the holders of a specific qualification are expected to attain and demonstrate after successfully completing a programme of study

leading to the qualification.

Quality assurance: The process for checking that the academic standards and quality of higher education provision meet agreed expectations.

Recognition of Prior Learning (RPL): A process that involves the assessment of an individual's relevant prior learning (including through formal, informal, and non-formal learning).

Responsibility in the application of knowledge and/or skills: The degree of accountability in applying knowledge and/or skills in work and/or learning contexts appropriate for the level of the qualification.

Skills: *Skills* refer to what a graduate can do. The ability to use the acquired knowledge and know-how to perform and accomplish the assigned tasks related to the chosen field(s) of study and/or work or professional practice. It refers to what a learner should be able to do. Skills could be described in terms of their kinds and complexity such as (a) cognitive and creative skills involving the use of logical, intuitive, and critical thinking; (b) practical skills involving manual dexterity and the use of methods, materials, tools and instruments that are required to complete the tasks associated with the chosen fields of study, work or professional practice, including basic skills involving dexterity and the use of methods, materials, tools, and instruments used for performing the job, including digital literacy and skills needed for that level; (c) communication skills involving the ability to listen, read texts analytically and present ideas and thoughts in writing and orally; (d) interpersonal skills; (e) soft skills that enable an individual to fit in at a workplace, and (f) generic skills (high-order transferable skills) that are common to almost all complex endeavours and apply across all specific fields of study.

Specialized knowledge and/or skills: Specialized knowledge and/or skills refer to the depth and specificity of knowledge and/or skills required at a particular NHEQF level.

Systematic knowledge and/or skills: The knowledge and/or skills that are coherent and well-ordered/sequenced

Technical skills: The operational skills necessary to perform certain tasks/work and learning activities.

Theoretical knowledge and concepts: Knowledge requirements relating to or having the character of theory rather than practical application

Understanding: The mastery of facts, concepts, principles, theories, and practices that are related to the chosen fields of study, work, or professional practice. Understanding involves the demonstration of mental processes such as seeing relationships, citing examples, discriminating/ distinguishing, classifying/grouping/categorizing, interpreting, and generalizing.

Annexure I

Learning Outcomes Descriptors for higher education qualification at levels 4.5-8 on the NHEQF

(Certificate/Diploma/Degree is awarded to students who have demonstrated the achievement of the outcomes associated with the specific NHEQF level)

Elements of the descriptor	Level 4.5 Undergraduate Certificate	Level 5 Undergraduate Diploma	Level 5.5 Bachelor's Degree
The graduates should be able to demonstrate the acquisition of:			
Knowledge and understanding	• knowledge of facts, concepts, principles, theories, and processes in broad multidisciplinary learning contexts within the chosen fields of learning, • understanding of the linkages between the learning areas within and across the chosen fields of study, • procedural knowledge required for performing skilled or paraprofessional tasks associated with the chosen fields of learning.	• theoretical and technical knowledge in broad multidisciplinary contexts within the chosen fields of learning, • deeper knowledge and understanding of one of the learning areas and its underlying principles and theories, • procedural knowledge required for performing skilled or paraprofessional tasksassociated with the chosen fields of learning.	• comprehensive, factual, theoretical, and specialized knowledge in broad multidisciplinary contexts with depth in the underlying principlesand theories relating to one or more fields of learning. • knowledge of the currentand emerging issues and developments within the chosen fields of learning. • procedural knowledge required for performing and accomplishing professional tasks associated with the chosen fields of learning.
The graduates should be able to demonstrate the acquisition			
Skills required to perform and accomplish tasks	• a range of cognitive and technical skills required for accomplishing assigned tasks relating to the chosen fields of learning in the context of broad multidisciplinary contexts. • cognitive skills required to identify, analyze and synthesize information from a range of sources. • cognitive and technical skills required for selecting and using relevant methods, tools,and materials to assess the appropriateness of approaches to solving problems associated with the chosen fields of learning.	• cognitive and technical skills required for performing and accomplishing complex tasks relating to the chosen fields of learning. • cognitive and technical skills required to analyze and synthesize ideas and information from a range of sources. • act on information to generate solutions to specific problems associated with the chosen fields of learning.	• cognitive and technical skills required for performing and accomplishing complex tasks relating to the chosen fields of learning. • cognitive and technical skills required to evaluate and analyze complex ideas. • cognitive and technical skills required to generate solutions to specific problems associated with the chosen fields of learning.

Level 6 Bachelor's Degree (Honours/ Honours with Research)	Level 6.5 Master's Degree	Level 7 Master's Degree (M.Tech./M.E.)	Level 8 Doctoral Degree
	The graduates should be able to demonstrate the acquisition of:		
• advanced knowledge about a specialized field of enquiry, with depth in one or more fields of learning within a broad multidisciplinary/interdisciplinary context. • a coherent understanding of the established methods and techniques of research and enquiry applicable to the chosen fields of learning. • an awareness and knowledge of the emerging developments and issues in the chosen fields of learning, • procedural knowledge required for performing and accomplishing professional tasks associated with the chosen fields of learning.	• advanced knowledge about a specialized field of enquiry with a critical understanding of the emerging developments and issues relating to one or more fields of learning, • advanced knowledge and understanding of the research principles, methods, and techniques applicable to the chosen fields of learning or professional practice, • procedural knowledge required for performing and accomplishing complex and specialized professional tasks relating to teaching, and research and development.	• advanced knowledge about a specialized field of enquiry with a critical understanding of the emerging developments and issues relating to one or more fields of learning, • advanced knowledge and understanding of the research principles, methods, and techniques applicable to the chosen fields of learning or professional practice, • procedural knowledge required for performing and accomplishing complex and specialized professional tasks relating to teaching, and research and development.	• Highly specialized knowledge, including knowledge at the most advanced frontiers of the chosen fields of study. • mastery of the established research methods and techniques applicable to the chosen fields oflearning. • procedural knowledge required for complex research and development activities.
	The graduates should be able to demonstrate the acquisition of:		
• a range of cognitive and technical skills required for performing and accomplishing complex tasks relating to the chosen fields of learning, • cognitive and technical skills relating to the established research methods and techniques, • cognitive and technical skills required to evaluate complex ideas and undertake research and investigations to generate solutionsto real-life problems, • generate solutions to complex problems independently, requiring the exercise of full personal judgement, responsibility, and accountability for the output of the initiatives taken as a practitioner.	• advanced cognitive and technical skills required for performing and accomplishing complex tasks related to the chosen fields of learning, • advanced cognitive and technical skills required for evaluating research findings and designing and conducting relevant research that contributes to the generation of new knowledge, • specialized cognitive and technical skills relating to a body of knowledge and practice to analyze and synthesize complex information and problems.	• advanced cognitive and technical skills required for performing and accomplishing complex tasks related to the chosen fields of learning, • advanced cognitive and technical skills required for evaluating research findings and designing and conducting relevant research that contributes to the generation of new knowledge, • specialized cognitive and technical skills relating to a body of knowledge and practice to analyze and synthesize complex information and problems.	• most advanced and highly specialized cognitive and technical skills required for performing and accomplishing complex tasks related to research and development that make original contribution to knowledge, professional practice,and innovations, • cognitive and technical skills required for conceptualizing, designing, and implementing fundamental and/or applied research at the forefront of the chosen field(s) of learning to generate original knowledge. • cognitive and technical skills required for doing transdisciplinary research.

Elements of the descriptor	Level 4.5 Undergraduate Certificate	Level 5 Undergraduate Diploma	Level 5.5 Bachelor's Degree
The graduates should be able to demonstrate the acquisition of:			
Application of knowledge andskills	• apply the acquired operational or technical and theoretical knowledge, and a range of cognitive and practical skills to select and use basic methods, tools, materials, and information to generate solutions to specific problems relating to the chosen fields of learning.	• apply the acquired specialized or theoretical knowledge, and a range of cognitive and practical skills to gather quantitative and qualitative data, • select and apply basic methods, tools, materials, and information to formulate solutions to problems related to the chosen field(s) of learning.	• apply the acquired specialized technical or theoretical knowledge, and cognitive and practical skills to gather and analyze quantitative/ qualitative data to assess the appropriateness of different approaches to solving problems, • employ the right approach to generate solutions to problems related to the chosen fields of learning.
The graduates should be able to demonstrate the ability to:			
Generic learning outcomes	• listen carefully, read texts related to the chosen fields of study analytically and present information in a clear and concise manner to different groups/audiences. • express thoughts and ideas effectively in writing and orally and present the results/findings of the experiments carried out in a clear and concise manner to different groups.	• listen carefully, read texts related to the chosen fields of learning analytically and present complex information in a clear and concise manner to different groups/audiences, • communicate in writing and orally the information, arguments, and results of the experiments and studies conducted accurately and effectively to specialist and non-specialist audience.	• listen carefully, to read text related to the chosen fields of learning analytically and present complex information in a clear and concise manner to different groups/audiences. • communicate in writing and orally the constructs and methodologies adopted for the studies undertaken relating to the chosen fields of learning, • make coherent arguments to support the findings/ results of the study undertaken to specialist and non-specialist audience.
	• meet own learning needs relating to the chosen fields of learning. • pursue self-directed and self-managed learning to upgrade knowledge and skills required to pursue higher level of education and training.	• meet own learning needs relating to the chosen field(s) of learning, work/ vocation, and an area of professional practice, • pursue self-paced and self-directed learning to upgrade knowledge and skills required for pursuing higher level of education and training.	• meet own learning needs relating to the chosen field(s) of learning, • pursue self-paced and self-directed learning to upgrade knowledge and skills that will help adapt to changing demands of workplace and pursue higher level of education and training.

Level 6 Bachelor's Degree (Honours/ Honours with Research)	Level 6.5 Master's Degree	Level 7 Master's Degree (M.Tech./M.E.)	Level 8 Doctoral Degree
	Graduates should demonstrate the ability to:		
• apply the acquired advanced technical and/or theoretical knowledge and a range of cognitive and practical skills to analyze the quantitative and qualitative data gathered drawing on a wide range of sources for identifying problems and issues relating to the chosen fields of learning, • apply advanced knowledge relating to research methods to carryout research and investigations to formulate evidence-based solutions to complex and unpredictable problems.	• apply the acquired advanced theoretical and/or technical knowledge about a specialized field of enquiry or professional practice and a range of cognitive and practical skills to identify and analyze problems and issues, including real-life problems, associated with the chosen fields of learning. • apply advanced knowledge relating to research methods to carryout research and investigations to formulate evidence-based solutions to complex and unpredictable problems.	• apply the acquired advanced theoretical and/or technical knowledge about a specialized field of enquiry or professional practice and a range of cognitive and practical skills to identify and analyze problems and issues, including real-life problems, associated with the chosen fields of learning. • apply advanced knowledge relating to research methods to carryout research and investigations to formulate evidence-based solutions to complex and unpredictable problems.	• apply the acquired highly specialized knowledge, skills, and methods of research to design and conduct original and high quality disciplinary or multidisciplinary or interdisciplinary research to generate evidence-based solutions to complex problems, including real-life problems, relating to the chosen field(s) of study.
	The graduates should be able to demonstrate the ability to:		
• listen carefully, read texts and research papers analytically and present complex information in a clear and concise manner to different groups/ audiences, • communicate technical information and explanations, and the findings/results of the research studies relating to specialized fields of learning, • present in a concise manner one's views on the relevance and applications of the findings of research and evaluation studies in the context of emerging developments and issues.	• listen carefully, read texts and research papers analytically and present complex information in a clear and concise manner to different groups/audiences, • communicate, in a well-structured manner, technical information and explanations, and the findings/ results of the research studies undertaken in the chosen field of study, • present in a concise manner one's views on the relevance and applications of the findings of recent research and evaluation studies in the context of emerging developments and issues.	• listen carefully, read texts and research papers analytically and present complex information in a clear and concise manner to different groups/audiences, • communicate, in a well-structured manner, technical information and explanations, and the findings/ results of the research studies undertaken in the chosen field of study, • present in a concise manner one's views on the relevance and applications of the findings of recent research and evaluation studies in the context of emerging developments and issues.	• listen carefully, read texts and research papers analytically and present complex information in a clear and concise manner to non-specialist and specialist groups/ audiences. • present, in a well-structured and logical manner, technical information and explanations pertaining to the results/findings of research studies undertaken. • present views on the relevance and application of recent research and their applications in the context of the emerging developments and issues related to the chosen field(s) of study or professional practice.

• meet one's own learning needs relating to the chosen fields of learning, • pursue self-paced and self-directed learning to upgrade knowledge and skills that will help accomplish complex tasks and pursue higher level of education and research.	• meet one's own learning needs relating to the chosen fields of learning, work/vocation, and an area of professional practice, • pursue self-paced and self- directed learning to upgrade knowledge and skills, including research-related skills, required to pursue higher level of education and research.	• meet one's own learning needs relating to the chosen fields of learning, work/vocation, and an area of professional practice, • pursue self-paced and self- directed learning to upgrade knowledge and skills, including research-related skills, required to pursue higher level of education and research.	• meet one's own learning needs relating to research and investigations in the chosen fields of study. • pursue self-paced and self- directed learning to upgrade knowledge and skills, including research-related skills, required to pursue higher level of research related to new frontiers of knowledge.

Elements of the descriptor	Level 4.5 Undergraduate Certificate	Level 5 Undergraduate Diploma	Level 5.5 Bachelor's Degree
The graduates should be able to demonstrate the acquisition of:			
	• gather and interpret relevant quantitative and qualitative data to identify problems, • critically evaluate principles and theories associated with the chosen fields of learning.	• critically evaluate the essential theories, policies, and practices by following scientific approach to knowledge development.	• critically evaluate evidence for taking actions to generate solutions to specific problems associated with the chosen fields of learning based on empirical evidence.
	• make judgement and take decision, based on analysis of data and evidence, for formulating responses to issues/problems associated with the chosen fields of learning, requiring the exercise of some personal responsibility for action and outputs/outcomes.	• make judgement and take decision, based on the analysis and evaluation of information, for determining solutions to a variety of unpredictable problems associated with the chosen fields of learning, taking responsibility for the nature and quality of outputs.	• make judgement and take decisions based on the analysis and evaluation of information for formulating responses to problems, including real-life problems, • exercise judgement across a broad range of functions based on empirical evidence, for determining personal and/or group actions to generate solutions to specific problems associated with the chosen fields of learning.

Level 6 Bachelor's Degree (Honours/ Honours with Research)	Level 6.5 Master's Degree	Level 7 Master's Degree (M.Tech./M.E.)	Level 8 Doctoral Degree
	The graduates should be able to demonstrate the acquisition of:		
• Demonstrate a keen sense of observation, inquiry, and capability for asking relevant and appropriate questions, • problematize, synthesize and articulate issues and design research proposals, • define problems, formulate appropriate and relevant research questions, • formulate hypotheses, test hypotheses using quantitative and qualitative data, and establish hypotheses, make inference based on the analysis and interpretation of data, and predict cause-and-effect relationships, • develop appropriate tools for data collection, • examine and assess the implications and consequences of emerging developments and issues relating to the chosen fields of study based on empirical evidence.	• problematize, synthesize and articulate issues and design research proposals, • define problems, formulate appropriate and relevant research questions, formulate hypotheses, test hypotheses using quantitative and qualitative data, establish hypotheses, make inference based on the analysis and interpretation of data, and predict cause-and- effect relationships, • develop appropriate tools for data collection for research, • use appropriate statistical and other analytical tools and techniques for analysis of data collected for research and evaluation studies, • plan, execute and report the results of an investigation, • follow basic research ethics and skills and practice ethics in the field/ in one's own research work.	• problematize, synthesize and articulate issues and design research proposals, • define problems, formulate appropriate and relevant research questions, formulate hypotheses, test hypotheses using quantitative and qualitative data, establish hypotheses, make inference based on the analysis and interpretation of data, and predict cause-and- effect relationships, • develop appropriate tools for data collection for research, • use appropriate statistical and other analytical tools and techniques for analysis of data collected for research and evaluation studies, • plan, execute and report the results of an investigation, • follow basic research ethics and skills and practice ethics in the field/ in one's own research work.	• critically analyze and synthesize a body of knowledge in their major and allied fields, identify critical gaps and ask new questions, • develop new tools and techniques of data gathering and analysis, and at the end of it be able to conduct research independently.

• make judgement in a range of situations by critically reviewing and consolidating evidences, • exercise judgement based on evaluation of evidence from a range of sources to generate solutions to complex problems, including real-life problems, associated with the chosen fields of learning requiring the exercise of full personal responsibility and accountability for the initiatives undertaken and the outputs/ outcomes of own work as well as of the group as a team member.	• make judgements and take decisions regarding the adoption of approaches to solving problems, including real-life problems, based on the analysis and evaluation of information and empirical evidence collected. • make judgement across a range of functions requiring the exercise of full responsibility and accountability for personal and/ or group actions to generate solutions to specific problems associated with the chosen fields/subfields of study, work, or professional practice.	• make judgements and take decisions regarding the adoption of approaches to solving problems, including real-life problems, based on the analysis and evaluation of information and empirical evidence collected. • make judgement across a range of functions requiring the exercise of full responsibility and accountability for personal and/ or group actions to generate solutions to specific problems associated with the chosen fields/subfields of study, work, or professional practice.	• make judgements and take decisions regarding the formulation of responses to problems, including real-life problems, based on the analysis and evaluation of information and empirical evidence relating to the problems. • make significant judgement across broad range of functions requiring the exercise of responsibility for determining personal and/or group actions to generate solutions to specific problems associated with the chosen field(s) of study, work, or professional practice.

Elements of the descriptor	Level 4.5 Undergraduate Certificate	Level 5 Undergraduate Diploma	Level 5.5 Bachelor's Degree
The graduates should be able to demonstrate the acquisition of:			
Constitutional, humanistic, ethical and moralvalues	• embrace constitutional, humanistic, ethical, and moral values in one's life,and practice these values in real-life situations, • put forward convincing arguments to respond to the ethical and moral issues associated with the chosen fields of learning.	• embrace constitutional, humanistic, ethical, and moral values, and practice these values in life, • take a position regarding these values, • formulate arguments in support of actions to address issues relatingthe ethical and moral issues relating to the chosen fields of learning, including environmental and sustainable development issues, from multiple perspectives.	• embrace the constitutional, humanistic, ethical, and moral values, and practice these values in life. • identify ethical issues related to the chosen fields of study, • formulate coherent arguments about ethical and moral issues, including environmental and sustainable development issues, from multiple perspectives. • follow ethical practices in all aspects of research and development, including avoiding unethical practices such as fabrication, falsification or misrepresentation of data or committing plagiarism.
The graduates should be able to demonstrate the acquisition of:			
Employment-ready skills, and entrepreneurship skills and mindset	• knowledge and a basket of essential skills, required to: • perform effectively in a defined job relating to the chosen fields of study, • ability to exercise responsibility for the completion of assigned tasks and for the outputs of own work, and to takesome responsibility for group work and output as a member of the group.	• knowledge and essential skills set that are necessary to: • take up job/employment relating to the chosen fields of study or professional practice requiring the exercise of full personal responsibility for the completion of tasks and for the outputs of own work, and full responsibility for the group task/work asa member of the group/ team. • exercise self- management within the guidelines of study and work contexts. • supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities.	• knowledge and essential skills set and competence that are necessary to: take up a professional job relating to the chosen field of learning and professional practice, • entrepreneurship skills and mindset required for setting up and running an economic enterprise or pursuing self-employment requiring the exercise of full personal responsibility for the outputs of own work, and full responsibility for output of group, • exercise management and supervision in the contexts of work or study activities involving unpredictable work processes and working environment.

Level 6 Bachelor's Degree (Honours with Research/Honours)	Level 6.5 Master's Degree	Level 7 Master's Degree (M.Tech./M.E.)	Level 8 Doctoral Degree
The graduates should be able to demonstrate the ability to:			
• embrace and practice constitutional, humanistic, ethical, and moral values in one's life. • adopt objective, unbiased, and truthful actions in all aspects of work related to the chosen field(s) of learning and professional practice. • present coherent arguments in support of relevant ethical and moral issues. • participate in actions to address environmental and sustainable development issues. • follow ethical practices in all aspects of research and development, including avoiding unethical practices such as fabrication, falsification or misrepresentation of data or committing plagiarism.	• embrace and practice constitutional, humanistic, ethical and moral values in one's life, • adopt objective and unbiased actions in all aspects of work related to the chosen fields/subfields of study and professional practice, • participate in actions to address environmental protection and sustainable development issues, • support relevant ethical and moral issues by formulating and presenting coherent arguments, • follow ethical principles and practices in all aspects of research and development, including inducements for enrolling participants, avoiding unethical practices such as fabrication, falsification or misrepresentation of data or committing plagiarism.	• embrace and practice constitutional, humanistic, ethical and moral values in one's life, • adopt objective and unbiased actions in all aspects of work related to the chosen fields/subfields of study and professional practice, • participate in actions to address environmental protection and sustainable development issues, • support relevant ethical and moral issues by formulating and presenting coherent arguments, • follow ethical principles and practices in all aspects of research and development, including inducements for enrolling participants, avoiding unethical practices such as fabrication, falsification or misrepresentation of data or committing plagiarism.	• practice constitutional, humanistic, ethical, and moral values in conducting one's life, • adopt objective and unbiased actions in all aspects of work, • identify ethical issues related to the chosen fields of research, including those relating to environmental and sustainable development issues, • follow ethical practices in all aspects of research and development, including avoiding practices such as fabrication, falsification or misrepresentation of data or committing plagiarism, and not adhering to intellectual propertyrights, • acquire the understanding of basic research ethics and skills in practicing/doing ethics in the field/in one's own research work, regardless of the funding authority or field of study.

The graduates should be able to demonstrate the acquisition of:			
knowledge and skills set and competencies required for: • adapting to the future of work and to the demands of the fast pace of technological developments and innovations that drive shift in employers' demands for skills, particularly with respect to transition towards more technology-assisted work involving the creation of new forms of work and rapidly changing work and production processes. • managing complex technical or professional activities or projects, requiring the exercise of full personal responsibility for output of own work as well as for the outputs of the group as a member of the group/team. • exercising supervision in the context of work having unpredictable changes.	knowledge and essential skills set required for: • adapting to the future of work and responding to the demands of the fast pace of technological developments and innovations that drive shift in employers' demands for skills, particularly with respect to transition towards more technology-assisted work involving the creation of new forms of work and rapidly changing work and production processes. • exercising full personal responsibility for output of own work as well as for group/ team outputs and for managing work that are complex and unpredictable requiring new strategic approaches.	knowledge and essential skills set required for: • adapting to the future of work and responding to the demands of the fast pace of technological developments and innovations that drive shift in employers' demands for skills, particularly with respect to transition towards more technology-assisted work involving the creation of new forms of work and rapidly changing work and production processes. • exercising full personal responsibility for output of own work as well as for group/ team outputs and for managing work that are complex and unpredictable requiring new strategic approaches	knowledge and essential skills set required for: • adapting to the future of work and respond to the demands of the fast pace of technological developments and innovations that drive shift in skill needs relating to work and professional practices, including those relating to teaching, research, and development, • exercising full personal responsibility for outputs/ outcomes of own work and outputs/outcomes of group efforts, • exercising substantial authority, innovation, autonomy, professional integrity, and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research.

Exemplar Programme Learning Outcomes (PLOs)

Element/ Dimension	Programme learning outcomes
Knowledge and understanding	***Psychology:*** Demonstrate a fundamental/coherent understanding of the disciplinary area of psychology, its different learning areas and its linkages with related disciplinary areas/subjects such as biological psychology, Developmental psychology, social psychology, and applications.
	Psychology: Demonstrate a coherent understanding of the biological bases of human and non-human animal behaviour, hormones and behaviour, behavioural genetics, neuroscience, neuro psychology, comparative, and evolutionary psychology.
	Economics: Demonstrate a fundamental/coherent understanding of economic concepts and principles (microeconomic concepts, macroeconomic principles) and tools, and their application; distinctive economic theories, interpretations and modelling approaches and their competent use, the workings of economic systems; the history and development of economic ideas and the differing methods of analysis that have been and are used by economists.
	Economics: Recognize the importance of mathematical modeling and computing, and the role of approximation and mathematical approaches to describing the physical world.
	Physics: Demonstrate a fundamental/coherent understanding of the academic field of physics, its different learning areas (mechanics, heat, electricity, sound etc.) and applications, and its linkages with related disciplinary areas/subjects.
	Chemistry: Demonstrate a fundamental/coherent understanding of fundamental concepts, principles and processes underlying the academic field of chemistry, its different subfields (analytical, inorganic, organic and physical), and its linkages with related disciplinary areas.
	Procedural knowledge ***Physics:*** Undertake hands on lab work and practical activities which help prepare students effectively for professional employment relating to the area of Physics, including research and development, teaching and government/public service, private/NGO sectors.
	Procedural knowledge ***Economics:*** Undertake practical activities and projects which help prepare students effectively for professional employment relating to the area of Economics.
Skills related to one's specialization	***Chemistry:*** Demonstrate skills involving the constructive use of knowledge in the subfields of chemistry (analytical, inorganic, organic and physical), and other related fields of study in a range of settings, including for pursuing higher studies related to the chosen area of specialization within chemical sciences.

Element/ Dimension	Programme learning outcomes
Application of knowledge and skills	***Physics:*** Identify and apply appropriate physical principles and methodologies to solve different types of physics-related problems withwell-defined solutions.
	Chemistry: Apply standard chemistry-related methodologies to conduct chemical syntheses, analyses or other chemical investigations to seek solutions to problems that emerge from the subfields of chemistry as well as from broader interdisciplinary subfields relating to chemistry.
	Chemistry: Use appropriate methodologies to conduct chemical syntheses, analyze or other chemical investigations to seek solutions to problems that emerge from the subfields of chemistry as well as from broader interdisciplinary subfields relating to chemistry.
	Developmental psychology: Apply knowledge of typical and atypical development across the lifespan of an individual including childhood, adolescence, social relations, cognitive and language development, and cultural development to design developmentally appropriate curriculum for school education.
	Economics: Apply economics principles/theories to design, guide and interpret commercial, economic, social, and environmental policy; and apply relevant economic reasoning and methods of analysis to a varietyof applied topics relating to economics.
Generic learning outcomes	***Communication skills:*** ***Physics:*** Communicate accurately the findings of the experiments/ investigations while relating the conclusions/findings to relevant theories of Physics.
	Communication skills ***Chemistry:*** Read texts and research papers analytically and present complex chemistry-related information and the findings of the experiments/investigations while relating the conclusions to relevant principles in chemistry.
	Communication skills ***Economics:*** Articulate, communicate and present economic argumentsto both specialist and non-specialist audiences.
	Critical thinking ***Physics:*** Analyze experimental results/findings and construct logical arguments using correct technical language related to physics.
	Critical thinking ***Chemistry:*** Analyze and evaluate advances at the forefront of the chemical sciences, especially those relating to the four basic areas of chemistry (analytical, inorganic, organic, and physical) and construct logical arguments using correct technical language related to chemistry.
	Critical thinking ***Economics:*** Analyze/examine the effectiveness government's economic policy and evaluate the economic performance of select economies.

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University Grants Commission
(शिक्षा मंत्रालय, भारत सरकार)
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(Manish Joshi)

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Guidelines for Internship/Research Internship for Under Graduate Students



University Grants Commission
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(2023)

CONTENTS

1.0 Introduction

2.0 Objectives

3.0 Internship Categories

- **3.1** Enhancing Employability
- **3.2** Developing Research Aptitude

4.0 Internship Structure

5.0 Academic Credentials & Monitoring of Internship

- **5.1** Competencies to be Developed During Research Internships
- **5.2** Duration and Slots for Internship in Curriculum

6.0 Role of Internship Providing Organisation, Nodal Officer, Internship Supervisor and Mentor

- **6.1** Role of Internship Providing Organisation
- **6.2** Role of Nodal Officer
- **6.3** Role of Internship Supervisor
- **6.4** Role of Mentor

7.0 Internship Mechanism

8.0 Evaluation

9.0 Miscellaneous

1.0 INTRODUCTION

The India Skill Report (ISR), 2022 highlights that youth employability has improved to 46.2 % in 2021 from 45.97% till 2020. Interestingly, 51.44% employability of females was observed compared to 45.97% of males for 2021-22. In the year 2023, undergraduates in domain of the commerce got the highest employability rating at about 60.62%. The reports further mentioned that, 88.6% of graduates are looking for internship opportunities. In 2022, 88.42% of respondents in the report have given preference to an internship for gaining experience. It was also recorded that the year 2022 was also the year to mark the highest demand for internships since 2016. It is also observed that in India employers like to hire employees having at least a year of working experience (ISR, 2022).

In India, there are many platforms (Internshala, Lets Intern, Killer Launch, Hello Intern) that offer internships from many renowned organizations. In addition to this, many other portals are available which provide trainings and a range of courses across Industries. Experts also enroll in internships to get life-changing experiences. Internshala launched an initiative called the "Grand Summer Internship Fair", which offers more than 23000 internship opportunities to people from all educational backgrounds. The internship model proactively works as the primary value for providing the familiarity of genuine work in a representative situation to the students by the mentor under closedsupervision. The pupil gain experience in a tested pedagogical norm and is expected to make critical thinking with a range of values and observations.

The National Education Policy 2020-(NEP-2020) views that the purpose of the education system is to develop good human beings capable of rational thought and action, possessing compassion and empathy, courage and resilience, scientific temper and creative imagination, with sound ethical moorings and values. It aims at producing engaged, productive, and contributing citizens for building an equitable, inclusive, and plural society as envisaged by our Constitution. The NEP-2020 envisions promoting quality research in higher education and to ensure quality education by higher education institutions (HEIs), research and innovation are two inherently important aspects. The societal needs of our country can only be addressed by having a strong knowledge, skills, value and research-oriented vibrant higher education ecosystem for sustainable development.

In accordance with the NEP-2020, the UGC framed a new student-centric "Curriculum and Credit Framework for Undergraduate Programmes" (CCFUP) incorporating a flexible choice-based credit system, multiple entry and exit options, and a multidisciplinary approach. In an internship course students require to participate in a work experience or professional activity, or cooperative education activity with an entity external to the education institution, under the supervision of an expert from the given external entity. A prime aspect of the internship/research internship is induction into actual work situations. Internships includes working with government or private organizations, higher education institutions, universities, research and development labs/research organisations/non-government organisations, enterprises, centres involved in research, innovativeness and entrepreneurship, business organizations, local industry, artists,

craftspeople, and similar other entities for providing opportunities to students for active engagement in on-site experiential learning.

2.0 OBJECTIVES

An internship is gaining first-hand experience by an individual besides comprehending the way of working in an organisation, leading to improve the skill aptitude for a specific job or job role and building research capabilities with learning opportunities. Internships should be such organized that benefits the research intern as well as the internship providing organization. Following are the intended objectives of engaging undergraduate students in internship for employability and research internship programmes:

1. **Integration of workshop with workplace:** To see the internship in a broader, integrated and holistic manner where the delivery of the classroom is aligned with outcomes of the workplace. The objectives of the internship need to be designed with the intention of integrating workshop / classroom / lab/research lab learnings with the workplace (organisation / enterprise / start-ups / corporate / farmlands / artisans / gig workers / Non-government organisations (NGOs)/research & development organisations, higher education institutions (HEIs), etc).
2. **Understanding of the world of work:** To provide undergraduate students with an opportunity to improve their understanding of the experiences, challenges, and opportunities of the real world of work, as well as to set their expectations and behaviour in accordance with the demands, culture, and values of current and emerging jobs.
3. **Hybrid model learning:** To broaden learning opportunities by combining physical and digital modes of learning while working in industry, corporate, research & development organisations, workplace, within or outside HEIs, blended with a mentor or research expert and as per the need and convenience.
4. **Developing research aptitude:** To create and facilitate conditions that allow students in their quest for knowledge, its discovery, learn, understand and sharpen research acumen, familiarising with analytical tools and techniques with appropriate usage, research methodologies, data analysis, integrity and ethical behaviour, manuscripts preparations, identification of appropriate journals, patent and intellectual property rights, and their application in solving research/complex/real-life problems.
5. **Exposure in emerging technologies:** To provide exposure to emerging technologies/ automation and how it can support, facilitate, improve and reinforce work processes/ culture/ job roles/art and craft, including thetraditional areas of art-craft/ heritage skills, agriculture, etc.
6. **Enhance entrepreneurial capabilities:** Understand how organisations / enterprises are formed for sustainable progress so that start-ups and entrepreneurial capabilities are strengthened among students and they are encouraged to be job creators.
7. **Development of decision-making and teamwork skills:** To facilitate the development of problem-solving and decision-making skills, enable teamwork &

collaboration culture to promote research, academic and professional developments.

8. **Cultivate a sense of Social Imagery and Citizenship Responsibility:** To develop a sense of social imagery (issues) and philanthropic versatility among the graduating students that will facilitate towards the development of an attitude towards citizenship responsibility.
9. **Stimulate collaborative influence:** To promote HEIs collaboration, industry-academia partnership will be developed to provide collaborative internships, apprenticeships, and research opportunities to the students in the predefined areas of importance which will lead institutions, universities, organisations, academicians, and students to collaborate on how to learn with one another.
10. **Enhancing professional competency:** The internship should not only focus on employability or research capabilities; there is also a need for professional principles, ethics, values, and integrity which will enable them to gain perspective, practice, develop as competency and perform professional tasks in the way that the employment market demands.

3.0 INTERNSHIP CATEGORIES

The employability of graduates can be improved by developing practical experience and exposure with the required right kind of attitude for the workplace. The internship is one of the important apparatuses that help in improving these employability skills and can help in generating competency, capability, professional working skills, expertise, and confidence among the students for employability and developing interest/passion for research. The interns can understand the application of theory in the workplace.

The undergraduate internships would be classified into two types:

i. **Internship for enhancing the employability**
ii. **Internship for developing the research aptitude**

3.1 Enhancing Employability

Graduates face many difficulties after graduation to enrol in the workforce. Recent graduates are lacking knowledge, practical skills, and experience which are mandatory requirements demanded by employers for recruitment. Graduates face many difficulties after graduation to enrol in the workforce. Recent graduates are lacking knowledge, practical skills, and experience which are mandatory requirements demanded by employers for recruitment.

Employability refers to the certain attributes of an individual that enable him/her to perform any job opportunity in line with the set standards of performance to meet expectations for the expected job. Employability is a set of skills and attributes developed through a range of experiences at workshops and workplaces. It states that when a student can demonstrate skills on the job. Individuals need to develop such competencies which reduce the obstacles as job seekers and also increase their potential as job providers.

The internship programs should be well conceptualized and interactive for building research capabilities/aptitude/skills of our under-graduates/researchers/faculties for

1. Development of project and its execution
2. Decision-making
3. Confidence development
4. Working/coordinating in a team
5. Creative and critical thinking and problem-solving
6. Ethical values
7. Professional development
8. Understand government/local bodies world of work
9. Reference of resource persons in the field
10. Development of online/ simulation-based module for a virtual research internship
11. Understanding the nuances of building a deep-technology start-up
12. Study certain entrepreneurs,
13. Study of the enterprises, farmers, artisans, etc.

3.2 Developing Research Aptitude

Research aptitude refers to the attribute of inquiry/investigation, analysis and interpretations in a scientific and objective method that facilitates to uncover facts and present an individual viewpoint in an organised manner.

Research internship aims at providing hands-on training to work on research tools, techniques, methodologies, equipment, policy framework and various other aspects in pursuing quality research.

Apart from gaining relevant research experience, the interns would learn the following, through research professionals/mentors:

- Ideation and conceptualization of a research question/problem
- Learning about new tools and handling of equipment
- Experimentation and collection of data
- Simulations and development of models
- Preparation and presentation of reports

Research Internship experience can be gained by working with faculty/scientists/mentors in HEIs, research institutions, universities, Industrial research labs, nationally and internationally reputed organizations, farmers, and entrepreneurs, using local experts through recognition of prior learning models and individual persons distinguished in specific fields. The integration of research, innovation and technology development is the foundation of Atma-Nirbhar Bharat (Self-reliant India). Institutionalization of internships at undergraduate levels is expected to play a pivotal role in catalysing the inter-disciplinary/multi-disciplinary/trans-disciplinary and translational research culture embedded in NEP-2020.

4.0 INTERNSHIP STRUCTURE

An internship provides learning experiences related to a student's interest or area ofstudy. It also gives an opportunity to acquiring new skills. The HEIs are required to play an important role in arranging internships for their students by creating a structured

robust mechanism for internship programmes under their Research and Development (R&D) Cell. The R&D cell may appoint the coordinator or create a well-defined mechanism or structure at the HEI level for smooth coordination and functioning of internships across diverse disciplines.

1. Each HEI should have a Nodal Officer who is responsible for developing need and demand-led verticals as well as expectations from each vertical in undergraduate programmes. The internship must be well-defined, with clear outcomes. It is critical to explore, reach out to, and sign a Memorandum of Understanding (MOU) with local businesses, research organisations, HEIs, etc. as this will aid in training, research, employment, and start-ups.
2. To define verticals, HEIs must undertake a survey in the local market to understand the needs of companies and the expectations of students. These verticals can be on the basis of industry clusters operational in the country, from emerging technologies and from the international world of work also.

Industrial regions/clusters may include those places where industries have concentrated as a result of favourable geo-economic circumstances. These are places where a sizable portion of the populace works in the manufacturing area, which operates on a sizable scale. There are indicative clusters identified at central, state, micro and local government/administration levels and HEIs at their own level can identify and also go beyond these clusters for internships.

Further, there are certain verticals that HEIs may incorporate as options while choosing a sector by a student while making registration and undergoing an internship/research internship. The list is indicative only.

1. Trade and Agriculture Area
2. Economy & Banking Financial Services and Insurance Area
3. Logistics, Automotive & Capital Goods Area
4. Fast Moving Consumer Goods & Retail Area
5. Information Technology/Information Technology enabled Services & Electronics Area
6. Handcraft, Art, Design & Music Area
7. Healthcare & Life Science Area
8. Sports, Wellness and Physical Education Area
9. Tourism & Hospitality Area
10. Digitisation & Emerging Technologies (Internet of Things/Artificial Intelligence/Machine Learning/Deep Learning/Augmented Reality/Virtual Reality, etc.) Area
11. Humanitarian, Public Policy and Legal Service Area
12. Communication Area
13. Education Area
14. Sustainable development Area
15. Environment Area
16. Commerce, Medium and Small-Scale Industries Area

For Instance, Internships in agriculture, and related domains like farm internships, agriculture research internships, agri-business internships can be considered as an

opportunity by undergraduate students enrolled in HEIs. The agriculture sector needs to be considered by HEIs for the internship in rural regions. The HEIs/Universities at their level can explore National Qualification Register and check the possible job roles across sectors for exploring the internship areas **(https://nqr.gov.in/).** However, the HEIs/Universities are open to explore areas beyond that and it can be used as an indicative only.

3. Internship would involve a student from a HEI and he/she would be attached to an internship supervisor (IS), and mentor preferably from the same HEI for a specified duration and conduct a time-bound internship project. The HEI (parent Institute) and the Internship Providing Organization (IPO) would play important roles in facilitating the smooth conduct of the internship.
4. A provision of group internship may also be considered for handling the chunk of students in a particular domain by HEIs. The group can be identified for a particular theme assigned to a particular industry or HEI supervised by an internship supervisor and mentor. Students can also come together and submit their proposal to the R&D coordinator and then after the examination of the proposal the cell can approve/reject it. If the proposal is accepted by the cell, then the allocation of a supervisor as well as a mentor for the same could bemade as per norms (Student centric rather than Institution Centric). The HEIs/Universities can also explore the possibilities of joint project works for their students based on mutual understanding and agreements.
5. The institution, based on local assessment, programs offered by the institute/university can identify projects linked to the local industry needs and create a pool available on the portal. The student chooses a project, and he must get a supervisor and mentor for it. The mechanism of local industry collaboration should be one of the focal points of HEIs for providing internship opportunities to students.
6. The internship can be linked to the outcomes of value-added/skill-development/ability enhancement courses. HEIs may have both backward and forward integrations for internships. For backward integration, the HEIs can make use of ability-enhancement courses, value-added courses, and skill- enhancement courses. These courses should serve as a prerequisite for internships and should be handled as such.
7. For forward integration the HEIs need to develop a list of projects along with a list of mentors, the same can be uploaded on the portal developed by HEIs. The students can pick projects and get paired with chosen mentors along with an option of co-mentor from the same or any other reputed institution or organisations.
8. HEIs need to make their digital portals where they can register experts, agencies, industries, organisations, mentors, faculty members which are open and visible to students. HEIs must ensure that these portals have the scope of application programming interface (API) integration, so that when a central portal is available, integration can be made.
9. Students can choose industry mentor from HEIs/ research organizations/industrial R&D labs/Universities/other national repute institutions / organizations / industries / emergency professional / NGOs / local government officials/ outside India experts working at the international

level/social networking sites (e.g., **LinkedIn**). The same portal can be developed at HEI/University level. A centrally managed Internship Portal would help in arranging the internship by the HEIs for the students. The portal will provide information regarding various internship opportunities like **Internshala**, etc

10. Certain experienced people superannuated as research scientists, academics, industry professionals, farmers, entrepreneurs, local artisans and other experts, etc. can get registered on a portal as mentors from various disciplines. HEIs may network with local administration and identify areas where students can work on assignments or projects that will give them exposure to social issues in the form of projects.
11. Projects can also be scoped and aligned to the study of the effectiveness of various government and non-government schemes as well. The live case study assignment can also be imparted as the project to the individuals which led learners to apply that learning in the real-life situation depending on the kind of course (e.g. law, management, social works).
12. The students involved in the internship may continue their internship subject to the condition that his/her academic credits do not get affected in terms of attendance and other assignments. If the need arises, students may also have an opportunity to make use of summer & winter breaks for extending their learning from internships.
13. HEIs can also look upon cluster models where institutions (2-3) can club or make a memorandum of understanding (MoU) for internships, the information of same need to be mentioned on the portal of HEIs and student may be willing to opt any and choose the mentor physically or digitally or any mentor outside also at national or international level.
14. There must be a mechanism for the orientation of teachers/ training of trainers'/faculty development programs and it should serve as a prerequisite for the HEIs offering the internships in the programme. In the case of the 4-year program, the policy needs to be framed for students who have an interest in research right from the beginning at the undergraduate level.

5.0 ACADEMIC CREDENTIALS & MONITORING OF INTERNSHIP

A. Internship

A minimum of 2-4 credits, out of the required minimum 120/160 credits, of a 3-year UG degree/4-year UG degree (Honours)/4-year UG degree (Honours with Research) can be assigned for Internship as per the National Higher Education Qualifications Framework (NHEQF) and Curriculum and Credit Framework for Undergraduate Programme (CCFUP). An internship of 60 to 120 hours duration after the 4^{th} semester will be mandatory for the students enrolled in UG degree programmes.

For an internship, one credit of Internship means two-hour engagement per week. Accordingly, in a semester of 15 weeks' duration, one credit in this course is equivalent to 30 hours of engagement in a semester.

B. Research Project/Dissertations/Thesis/Project work

For the 4-year UG degree programme (Honours with Research), engagement of students in the dissertations/research project during the entire 8th semester of 12 credits will be considered as a mandatory component for the award of the degree. The students need to essentially submit the research project/dissertations/thesis/project work to the allotted mentor. The submission of the report with the conduction of viva will also be a component for the successful evaluation of the dissertation/research project/thesis/Project work.

The dissertation/research project/thesis work should involve 360 hours' duration during the 8th semester and it will be mandatory for the students enrolled in UG degree programmes (Honours with Research).

5.1 Competencies to be developed during Research Internships

3-year UG degree, 4-year UG degree (Honours) and 4-year degree (Honours with Research) programme will be operating strictly adhering to NEP-2020, NHEQF and CCFUP provisions. Based on the higher education qualification level descriptors for Level-5.5 and Level-6 some of the competencies with research orientation should be attained by the students by studying the courses under the Research Ability Enhancement Courses (RAEC) and by undertaking the research internship project.

- The students should be well-versed with the techniques and methods of research that would support knowledge creation.
- The students should have an understanding of complex problem statements and the ability to develop solutions for real-life problems.
- The students will possess a good comprehension ability to interpret the oral and written communications in research papers, and present own interpretations.
- The students will be able to communicate technical information, research findings to the peers.
- The students will be made aware of the research ethics, professional accountability, conduct and will be able to practice the research ethics and appropriate skills in in his/her own research work.
- The student will be able to enhance academic productivity by developing writing and reading skills and can make contributions towards social and economic issues from their research in future.
- The research intern can possess an attitude and skill of adaptability and flexibility for new challenges at organisational and individual level with a mind- set of teamwork and collaborations.

5.2 Duration and Slots for Internship in Curriculum

Each undergraduate student may complete an internship of 2-4 credits during after the 4th semester of the UG degree programme focussing on Hands-on Training/Short Research Project. However, the student who has to go for a 4-year UG degree (Honours with Research) programme will be required to choose courses as given Table 1 during the 8th semester.

Table 1: Activities, Suggested Duration along with a corresponding number of credits of Internship Programme:

S. No.	Courses	Suggested Schedule	Duration	Suggested Activities	Credits
1	• 3-year UG degree • 4-year UG degree (Honours) • 4-year UG degree (Honours with Research)	After (4th) Semester	60 -120 hours	Hands-on Training/Short Research Project Seminar attendance Read assigned journals to prepare for seminars Study certain entrepreneurs Social projects Study of the enterprises/ farmers	02-04
2	4-year UG Degree (Honours with Research)	8th Semester	One Semester	(i) HEI may adopt Research Methodology, Research Tools and Techniques, Research Ability Enhancement and Policy Framework Courses (ii)Dissertation/Thesis/Project Work/Research project	08 12

Note: In a 4-year UG degree (Honours) students not undertaking research may do 3 courses for 12 credits in lieu of a research project/dissertation as specified in CCFUP Document.

6.0 ROLE OF INTERNSHIP PROVIDING ORGANISATION, NODAL OFFICER, INTERNSHIP SUPERVISOR AND MENTOR

6.1 Role of Internship Providing Organisation

Internship Providing Organisation (IPO) is any organisation, HEI, philanthropy, farmer, government organisation, R&D institutions, research labs, artisans, enterprises, institution/person of eminence, cooperatives, corporates providing an opportunity to the student for Internship during the programme

- Internship providing organisation will connect with a nodal officer to look into the matter of facilitating the interns on arrival with registration, identity cards/ library cards/ internet subscription/ any other specific requirements, accommodation, etc.
- The mentor from internship providing organisation needs to provide time-to- time guidance to the candidate to have exposure to the research environment and employability market.

6.2 Role of Nodal Officer

Nodal Officer is an individual, who will be nominated as a member for the organisation and execution of internship opportunities in the institution. The person may be from the Research & Development (R&D) cell of the HEI. He/she will ensure the organization and

registration of students, mentors, organisations, internship supervisors on the HEI portal developed for internship.

- Internship Programme will be fully organised, executed and monitored by the R&D cell of HEI through a Nodal Officer to be appointed by the Vice Chancellor/Director/Principal/Head of the Department of HEI.
- The nodal officer may reach out to HEIs, research organisations, research labs, corporates, industry, etc. and moreover to local administrative offices like Deputy Commissioners and heads of certain government offices like labour,municipal, hospital, tourism, public relations, finance, agriculture, social welfare, etc. to seek the opportunity of an internship for the institution. For instance, the students can participate with local government in processes of census, surveys and elections and other schemes with proper mentoring mechanisms.
- The nodal officer may take care of the interns during their stay and address their problems, if any.
- The nodal officer must connect with the organisation and make MOUs so as to facilitate the students for an internship during the course.
- The nodal officer must ensure the registration of students, internship supervisors, mentors and internship providing organisation in the portal

6.3 Role of Internship Supervisor

An internship supervisor is any individual who will be nominated by the institution for monitoring, supervising, and evaluation of the student during the internship duration.

- Internship Supervisor will be nominated at the start of the academic year for each batch.
- Internship Supervisor from the host institute should monitor the regularity of the intern at his/her workplace. Students should preferably inform the Internship Supervisor at least one day prior to availing leave during the internship except for emergency.
- At the end of the internship, the Internship Supervisor will ensure issuing of completion certificates to the intern.
- Internship offered by the organisation should be followed by one project report and the assessment on the evaluation can be judged based on the innovativeness of that particular project, presentation and attendance by HEIs.

6.4 Role of Mentor

A mentor is an empanelled individual professional who is identified by the HEI or by students himself/herself through their network. The mentor should be identified and his/her concurrence should be conveyed to the internship supervisor.

He/she will be providing professional/research guidance to the student during the internship. The mentors will also facilitate networking with other subject matter experts/professionals, which will enhance the internship experience and learning of the intern.

They shall be making the timely evaluation of a student and provide him completion certification/report for submission in HEI.

- The mentor needs to provide guidance to the students digitally or physically throughout the internship duration.
- The mentor needs to check and validate the performance of students fortnightly and after the completion of the internship, issue the certificate/report.
- The mentor must ensure the learning of competencies with research orientation among the students during the internship duration.
- HEIs may integrate the job assigned to faculty with workload assessment.

7.0 INTERNSHIP MECHANISM

HEIs should develop a roadmap for the smooth functioning of (i) the internship programme under the Research and Development Cell at the HEIs, (ii) the office of the nodal officer, (iii) internship portals and about roles and responsibilities of interns, supervisors and mentors, iv) a list of projects and v) HEI and internship providing organisation may decide about Internship on mutually agreed terms and conditions. Internship outcomes should have been incorporated in developing a perspective among the candidates or students towards a profession and their ability to deconstruct a job role and to become job-ready as soon as they enter into a job or a profession.

a) Students will apply for research internships on their own or through the mentor of their parent HEI by registering at the internship portal. The HEI should ensure that such a student has an appropriate orientation for research through research ability enhancement courses as a part of the curriculum.
b) Interns will be selected by host organizations based on their selection criteria. The host organization will arrange to inform the potential intern through the portal itself or through the mail and will ask for confirmation or for acceptance.
c) If a student fails to get an internship in physical mode, then the host institute should have a provision for digital or group internship.
d) On receipt of an offer of internship, the student will arrange to consult the internship supervisor, obtain due permission from the parent institution and join the concerned host organization for an internship as per the suggested schedule.
e) The student may undergo an internship in the supervisor's lab/ working space at the host organization. During the period of internship, the parent HEI through the internship supervisor and mentor, will arrange to keep track of the activities and performance of students as interns at the host organization, based on periodic reports submitted by students.
f) On completion of Internship, intern will prepare internship report and get it endorsed by mentor.

Figure 1: Operational Structure of Internship



8.0 EVALUATION

Internship

1. The parent HEI will examine/evaluate the student's performance following its evaluation method.
2. The evaluation of the internship will be carried out at the following stages:
   a) The interns will be evaluated by research internship supervisor based on their efforts and research output.
   b) The interns will be evaluated through seminar presentation or viva-voce at the HEI, (marks will be given by a group of experts from HEI including the supervisor).
3. At HEI, the intern will be evaluated through a seminar/viva voce on his work, by a duly constituted expert committee (One Internal and One external), on the following suggestive aspects.
   i. Activity logbook and evaluation report of Internship Supervisor
   ii. Format of presentation and the quality of the intern's report
   iii. Acquisition of skill sets by the intern
   iv. Originality and any innovative contribution
   v. Significance of research outcomes
   vi. Attendance

Research Internship

1. Internship offered by the organisation should be followed by one project report and the assessment on evaluation can be judged based on
   a. Innovativeness of Research
   b. Presentation and,
   c. Viva-Voce
2. The research project report shall have an undertaking from the student and a certificate from the research supervisor/mentor/advisor for originality of the work, stating that there is no plagiarism and that the work has not been submitted for the award of any other degree/diploma in the same Institution or any other Institution.
3. The viva-voce examination shall include both internal and external examiner. The HEIs need to follow their examination structure for the conduction of the examination.

9.0 MISCELLANEOUS

1. In the case of a 4-year of UG degree programme, the University/HEI may offer 4 credits towards internships over and above the prescribed credits in the 4^{th} year as per Curriculum and Credit Framework for Undergraduate Programme.

2. HEIs/Universities may oversee and direct the affiliating HEIs for compliance towards the approved guidelines of internship.

ज्ञान-विज्ञान विमुक्तये
आचार्य मनिष र. जोशी
सचिव
Prof. Manish R. Joshi
Secretary

सत्यमेव जयते

आज़ादी का अमृत महोत्सव

विश्वविद्यालय अनुदान आयोग
University Grants Commission
(शिक्षा मंत्रालय, भारत सरकार)
(Ministry of Education, Govt. of India)

F. No. 1-3/2021(QIP) **3 वैशाख 1947/23rd April 2025**

सार्वजनिक सूचना

Subject: - UGC (Minimum Standards of Instruction for the Grant of Undergraduate Degree and Postgraduate Degree) Regulations, 2025

The National Education Policy 2020 has led to numerous reforms in the undergraduate and postgraduate programmes. Among NEP 2020's recommendations are degree programs with different durations, multiple entry and multiple exit points, the blending of general education and vocational education, the recognition of prior learning etc.

Regulations covering all of the key elements of NEP 2020 that are relevant to undergraduate and graduate programs have been notified by UGC. A copy of UGC (Minimum Standards of Instruction for the Grant of Undergraduate Degree and Postgraduate Degree) Regulations, 2025 is enclosed herewith. HEIs are requested to adopt the regulations and align their degree programmes according to the regulations.

(मनिष जोशी)

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अधिसूचना

नई दिल्ली, 26 मार्च, 2025

विश्वविद्यालय अनुदान आयोग (स्नातकपूर्व और स्नातकोत्तर उपाधि प्रदान करने के लिए अनुदेश के न्यूनतम मानदंड) मसौदा विनियम, 2025

फा. सं. 1-3/2021/क्यूआईपी/मल्टीपल एंट्री-एग्जिट).—विश्वविद्यालय अनुदान आयोग अधिनियम, 1956 (1956 का 3) की धारा 12 के खंड (ञ) के साथ पठित धारा 26 की उपधारा (1) के खंड (च) और (छ) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए तथा विश्वविद्यालय अनुदान आयोग (औपचारिक शिक्षा के माध्यम से प्रथम डिग्री प्रदान करने के लिए अनुदेश के न्यूनतम मानक) विनियम, 2003 और विश्वविद्यालय अनुदान आयोग (औपचारिक शिक्षा के माध्यम से निष्णात डिग्री प्रदान करने के लिए अनुदेश के न्यूनतम मानक) विनियम, 2003 और इसके मार्च, 2008 और मई, 2014 के संशोधनों का अधिक्रमण करते हुए, विश्वविद्यालय अनुदान आयोग एतद्वारा निम्नलिखित विनियम बनाता है, अर्थात्:-

1.0 संक्षिप्त नाम, विनियोग और प्रारंभ नाम.-

(क) इन विनियमों को विश्वविद्यालय अनुदान आयोग (स्नातकपूर्व और स्नातकोत्तर उपाधि प्रदान करने के लिए अनुदेश के न्यूनतम मानदंड) विनियम, 2025 कहा जाएगा।

(ख) यह विनियम, शासकीय राजपत्र में प्रकाशित होने की तिथि से प्रभावी होंगे।

2.0 अनुप्रयोग.- यह विनियम, किसी केन्द्रीय अधिनियम, प्रान्तीय अधिनियम अथवा किसी राज्य अधिनियम के अंतर्गत अथवा उनके द्वारा स्थापित अथवा निगमित सभी विश्वविद्यालयों और ऐसे विश्वविद्यालयों से मान्यता प्राप्त अथवा उनसे संबद्ध सभी संस्थानों और महाविद्यालयों तथा विश्वविद्यालय अनुदान आयोग अधिनियम, 1956 की धारा 3 के अंतर्गत सभी सम विश्वविद्यालयों संस्थानों पर लागू होंगे।

3.0 परिभाषाएं. – इन विनियमों में,

I. “अधिनियम” से विश्वविद्यालय अनुदान आयोग अधिनियम, 1956 (1956 का 3) अभिप्रेत है;

II. "शैक्षणिक परिषद" अथवा "सीनेट" से अभिप्रेत उच्चतर शिक्षण संस्थान में सभी शैक्षणिक मामलों के संबंध में निर्णय लेने के लिए सशक्त निकाय से है;

III. "शिक्षा वर्ष" से अभिप्रेत प्रत्येक कैलेंडर वर्ष के जनवरी से फरवरी अथवा जुलाई से अगस्त माह, जैसा मामला हो, में शुरू होने वाली बारह माह की अवधि से है;

IV. "अवार्ड" से अभिप्रेत किसी छात्र द्वारा अर्हता संबंधी अपेक्षाओं को पूरा करने पर सक्षम निकायों द्वारा प्रदान की जाने वाली अर्हता जैसे प्रमाण पत्र/ डिप्लोमा/ डिग्री से है;

V. “अकादमिक बैंक ऑफ क्रेडिट” (एबीसी) से अभिप्रेत एक डिजिटल, आभासी या ऑनलाइन इकाई के रूप में शैक्षणिक सेवा तंत्र, जिसे आयोग द्वारा केंद्र सरकार के अनुमोदन से स्थापित किया गया है, ताकि छात्रों को इसके अकादमिक खाताधारक बनने में सुविधा प्राप्त हो, जिससे विस्तीर्ण और लचीले शिक्षण- ज्ञानअर्जन को बढ़ावा देने के लिए क्रेडिट मान्यता, क्रेडिट संचय, क्रेडिट अंतरण और क्रेडिट मोचन की औपचारिक प्रणाली के माध्यम से डिग्री प्रदान करने वाले उच्चतर शिक्षा संस्थानों के बीच अथवा उनके भीतर निर्बाध छात्र गतिशीलता का मार्ग प्रशस्त हो;

VI. "मूल्यांकन बैंड" से अभिप्रेत एनसीआरएफ के अनुसार दो अनिवार्य चरणों के बीच स्तरों को जोड़ना। एनसीआरएफ स्तरों को मूल्यांकन चरण के बराबर माना जाता है जिसे छात्र/ शिक्षार्थी के लिए पास करना एक अनिवार्य चरण होगा;

VII. “अर्धवार्षिक प्रवेश” से अभिप्रेत वर्ष में दो बार अर्थात् जुलाई/अगस्त और जनवरी/फरवरी में विद्यार्थियों को प्रवेश देने की प्रक्रिया से है;;

VIII. “आयोग” से अभिप्रेत विश्वविद्यालय अनुदान आयोग अधिनियम की धारा 4 के अंतर्गत स्थापित विश्वविद्यालय अनुदान आयोग से है;

IX. “पाठ्यक्रम” से अभिप्रेत एक विनिर्दिष्ट इकाई से एक है जिसमें अध्ययन का एक विनिर्दिष्ट कार्यक्रम शामिल है;

X. “क्रेडिट” से अभिप्रेत 'राष्ट्रीय क्रेडिट फ्रेमवर्क' (एनसीआरएफ) में यथा परिभाषित एक सेमेस्टर की अवधि में प्रति सप्ताह आवश्यक निदेश के घंटों की संख्या से है;

XI. "क्रेडिट अपेक्षाओं" से अभिप्रेत किसी पाठ्यक्रम/ कार्यक्रम के लिए निर्धारित मान से है। क्रेडिट अपेक्षाओं को पूरा करने वाले छात्र का अभिप्राय यह है कि उसने पाठ्यक्रम/ कार्यक्रम को सफलतापूर्वक पूर्ण कर लिया है;

XII. "क्रेडिट अंतरण" से अभिप्रेत उस तंत्र से है जिसके द्वारा एबीसी के साथ पंजीकृत उच्चतर शिक्षा संस्थान ऑफ़लाइन/ ऑनलाइन/ ओडीएल/ निजी/ आरपीएल पद्धति के माध्यम से छात्रों द्वारा पूर्ण किए गए पाठ्यक्रमों/ प्राप्त अनुभवों के मानदंडों का पालन करते हुए व्यक्तिगत शैक्षणिक बैंक खातों में निर्धारित क्रेडिट प्राप्त करने या प्रदान करने में सक्षम हैं;

XIII. "डिग्री" से अभिप्रेत अधिनियम की धारा 22(3) के उपबंधों के अनुसार उच्चतर शिक्षा संस्थान द्वारा प्रदान की गई डिग्री से है;

XIV. "उच्चतर शिक्षा संस्थान" (एचईआई) से अभिप्रेत इन विनियमों के खंड 2 के तहत विनिर्दिष्ट विश्वविद्यालय या संस्थान से है;

XV. "ज्ञानअर्जन निष्कर्ष" से अभिप्रेत किसी शिक्षार्थी द्वारा एक ज्ञानअर्जन की प्रक्रिया और अध्ययन के कार्यक्रम/ पाठ् यक्रम के पूरा होने पर वह क्या जानता है, समझता है और क्या करने में सक्षम है, के विवरण से है;

XVI. "स्तर" से अभिप्रेत अनुक्रमिक चरणों की एक श्रृंखला से है, जैसा कि 'राष्ट्रीय क्रेडिट फ्रेमवर्क' (एनसीआरएफ) में दिया गया है,

जिसे ज्ञानअर्जन के परिणामों की एक श्रृंखला के संदर्भ में व्यक्त किया जाता है, जिसके समक्ष विशिष्ट अर्हताएं रखी जाती हैं/ स्थित होती हैं;

XVII. "बृहद मुक्त ऑनलाइन पाठ् यक्रम (एमओओसी)" से अभिप्रेत ऐसे ऑनलाइन पाठ्यक्रमों से है जो "फोर क्वाड्रेंट एप्रोच" का पालन कर शिक्षण पद्धति के अनुसार विकसित किए जाते हैं;

XVIII. "बहुस्तरीय प्रवेश एवं निर्गमन" एक सक्षम तंत्र है, जिसके अंतर्गत शिक्षार्थी किसी भी स्तर पर कार्यक्रम से निर्गमित होकर पुनः प्रवेश ले सकता है, ताकि वह निर्धारित अवधि के भीतर अपनी शिक्षा जारी रखते हुए उच्चतर योग्यता अर्जित कर सके;

XIX. "राष्ट्रीय उच्चतर शिक्षा अर्हता रूपरेखा" से अभिप्रेत एक वर्णनात्मक रूपरेखा से है जो ज्ञान/ दक्षता/ कौशल के स्तरों की श्रृंखला के अनुसार अर्हताओं को व्यवस्थित करती है;

XX. "ऑनलाइन पद्धति" से अभिप्रेत, इंटरनेट, ई-लर्निंग सामग्री और प्रौद्योगिकी-समर्थित तंत्रों और संसाधनों का उपयोग करके इंटरनेट के माध्यम से पूर्ण कार्यक्रम वितरण का उपयोग करके शिक्षक और शिक्षार्थी के बीच के अंतर को दूर करके लचीले ज्ञानअर्जन के अवसर प्रदान करने की एक पद्धति से है;

XXI. "मुक्त और दूरस्थ शिक्षा पद्धति" से अभिप्रेत, विभिन्न प्रकार के मीडिया जिसमें प्रिंट, इलेक्ट्रॉनिक, ऑनलाइन और शिक्षार्थियों या शिक्षार्थी सहायता सेवाओं के साथ कभी-कभार होने वाली अंतर्क्रियात्मक आमने-सामने की बैठकें शामिल हैं, जिसका उपयोग करके शिक्षक और शिक्षार्थी के बीच के अंतर को दूर करके लचीले शिक्षण के अवसर प्रदान करने की पद्धति से है, ताकि प्रयोगात्मक अथवा कार्य अनुभव सहित शिक्षण- ज्ञानअर्जन अनुभव प्रदान किया जा सके;

XXII. "कार्यक्रम" अथवा "अध्ययन कार्यक्रम" से अभिप्रेत अधिनियम की धारा 22 की उपधारा (3) के अंतर्गत आयोग द्वारा विनिर्दिष्ट डिग्री के लिए अपनाया गया उच्चतर शिक्षा कार्यक्रम से है;

XXIII. "पूर्व शिक्षा की मान्यता" (आरपीएल) से अभिप्रेत एक मूल्यांकन प्रक्रिया से है जिसे किसी व्यक्ति के कौशल, ज्ञान और औपचारिक, अनौपचारिक या अनौपचारिक ज्ञानअर्जन अनुभवों के माध्यम से अर्जित अनुभव का मूल्यांकन करने के लिए डिज़ाइन किया गया है;

XXIV. "स्नातकपूर्व प्रमाणपत्र" से अभिप्रेत स्नातकपूर्व कार्यक्रम में अध्ययन के चुने हुए क्षेत्रों में 1 वर्ष (2 सेमेस्टर) का अध्ययन पूरा करने के बाद प्राप्त प्रमाणपत्र से है;

XXV. "स्नातकपूर्व डिप्लोमा" से अभिप्रेत, किसी स्नातकपूर्व कार्यक्रम में अध्ययन के चुने हुए क्षेत्रों में 2 वर्ष (4 सेमेस्टर) के अध्ययन के बाद प्रदान किए जाने वाले डिप्लोमा से है;

XXVI. "विश्वविद्यालय" से अभिप्रेत, किसी केन्द्रीय अधिनियम, प्रान्तीय अधिनियम या राज्य अधिनियम द्वारा या उसके अंतर्गत स्थापित या निगमित उच्चतर शिक्षा संस्थान से है और इसमें अधिनियम की धारा 3 के तहत उच्चतर शिक्षा का कोई भी सम विश्वविद्यालय संस्थान शामिल होगा।

4.0 उच्चतर शिक्षा संस्थान हेतु सामान्य अपेक्षाएं-

I. द्विवार्षिक प्रवेश के लिए तैयार उच्चतर शिक्षा संस्थान, वर्ष में दो बार, अर्थात् जुलाई/अगस्त और जनवरी/फरवरी में, विद्यार्थियों को प्रवेश दे सकते हैं।

II. छात्र प्रवेश क्षमता का निर्धारण, विश्वविद्यालय/ संस्थान द्वारा अपने वैधानिक निकायों के माध्यम से अग्रिम आधार पर, विश्वविद्यालय अनुदान आयोग के दिशानिर्देशों/ मानदंडों के अनुरूप और संबंधित अन्य सांविधिक निकायों के आधार पर उपलब्ध शैक्षिक और वास्तविक सुविधाओं, छात्र-शिक्षक अनुपात, शिक्षण, शिक्षणेत्तर अनुपात के आधार पर किया जाएगा।

III. प्रत्येक उच्चतर शिक्षा संस्थान कक्षाओं, प्रयोगशालाओं, पुस्तकालय, खेलकूद और स्वास्थ्य सुविधाओं, छात्रावास आवास, जलपानगृह/ कैफेटेरिया और अन्य सुविधाओं से संबंधित मानदंड निर्धारित करेगा। संबद्धता की शर्त के रूप में ऐसी सुविधाओं के लिए मानदंड निर्धारित करते समय, उच्चतर शिक्षा संस्थान, विश्वविद्यालय अनुदान आयोग और संबंधित अन्य वैधानिक निकायों द्वारा जारी दिशानिर्देशों/ मानदंडों को ध्यान में रखेगा।

IV. उच्चतर शिक्षा, व्यावसायिक शिक्षा, प्रशिक्षण एवं कौशल विकास तथा प्रशिक्षुता का एकीकरण, स्नातकपूर्व और स्नातकोत्तर

पाठ्यक्रम संरचना के भाग के रूप में किया जाएगा, जोकि विश्वविद्यालय अनुदान आयोग द्वारा अधिसूचित स्नातकपूर्व, स्नातकोत्तर और शिक्षुता एम्बेडेड डिग्री कार्यक्रमों के लिए पाठ्यक्रम और क्रेडिट ढ़ांचे के अनुरूप होगा।

V. उच्चतर शिक्षा संस्थान, शैक्षणिक कार्यक्रमों में बहु-प्रवेश और निकास विकल्प उपलब्ध कराएंगे।

VI. छात्र की व्यावसायिक शिक्षा से सामान्य शिक्षा अथवा प्रतिलोमत: गतिशीलता, संबंधित विनियामक

निकायों द्वारा जारी संगत दिशानिर्देशों में निर्धारित प्रक्रिया के अनुसार होगी।

5.0 प्रवेश के लिए पात्रता मानदंड (स्नातकपूर्व/ स्नातकोत्तर) –

I. कोई छात्र जिसने स्तर 4 / कक्षा 12 की विद्यालयी शिक्षा (या तो औपचारिक विद्यालयी शिक्षा के माध्यम से अथवा मुक्त विद्यालयी प्रणाली के माध्यम से) अथवा इसके समकक्ष उत्तीर्ण की है, वह स्नातकपूर्व कार्यक्रम अथवा एकीकृत स्नातकपूर्व/ स्नातकोत्तर उपाधि कार्यक्रम में प्रवेश पाने हेतु पात्र होगा।

II. स्तर 4/ कक्षा 12 की विद्यालयी शिक्षा में विद्यार्थी द्वारा लिए गए किसी भी विषय के अनपेक्षत:, यदि विद्यार्थी स्नातकपूर्व कार्यक्रम की विधा में राष्ट्रीय स्तर अथवा विश्वविद्यालय स्तर की प्रवेश परीक्षा उत्तीर्ण करता है तो वह स्नातकपूर्व कार्यक्रम के किसी भी विषय में प्रवेश पाने के लिए पात्र है। जहां आवश्यक हो, विश्वविद्यालय विभिन्न विषयों से प्रवेश लेने वाले विद्यार्थियों के ज्ञान-अंतराल को दूर करने हेतु आवश्यक सेतु पाठ्यक्रम प्रदान कर सकता है।

III. यदि किसी छात्र ने 3 वर्षीय स्नातकपूर्व डिग्री (स्तर 5.5, कुल 120 क्रेडिट)/ ऑनर्स के साथ 4 वर्षीय स्नातकपूर्व डिग्री/ ऑनर्स के साथ शोध (स्तर 6, कुल 160 क्रेडिट) उत्तीर्ण कर ली हो तो वह स्नातकोत्तर डिग्री कार्यक्रम में प्रवेश पाने के लिए पात्र होगा।

IV. यदि छात्र स्नातकोत्तर कार्यक्रम की विधा में राष्ट्रीय स्तर अथवा विश्वविद्यालय स्तर की प्रवेश परीक्षा उत्तीर्ण करता है तो वह स्नातकपूर्व कार्यक्रम में लिए गए मुख्य अथवा गौण विषयों के अनपेक्षत: स्नातकोत्तर कार्यक्रमों के किसी भी विषय में प्रवेश पाने के लिए पात्र है।

V. कोई छात्र, विधा/ संस्थान/ शिक्षण की पद्धति में परिवर्तन के संदर्भ में लचीलेपन के साथ एक साथ दो स्नातकपूर्व कार्यक्रमों में अध्ययनरत हो सकता है, जैसा कि विश्वविद्यालय अनुदान आयोग के स्नातकपूर्व कार्यक्रमों के लिए पाठ् यक्रम और क्रेडिट ढ़ांचे और एक साथ दो शैक्षणिक कार्यक्रमों का अध्ययन करने सबंधी दिशानिर्देशों में दिया गया है।

VI. कोई छात्र, विधा/ संस्थान/ शिक्षण की पद्धति में परिवर्तन के संदर्भ में लचीलेपन के साथ एक साथ दो स्नातकोत्तर कार्यक्रमों में अध्ययनरत हो सकता है, जैसा कि विश्वविद्यालय अनुदान आयोग के स्नातकोत्तर कार्यक्रमों के लिए पाठ्यक्रम और क्रेडिट ढ़ांचे और एक साथ दो शैक्षणिक कार्यक्रमों का अध्ययन करने सबंधी दिशानिर्देशों में दिया गया है।

6.0 नियमित पद्धति के अलावा स्नातकपूर्व/स्नातकोत्तर कार्यक्रम के भाग के रूप में क्रेडिट का संचय -

I. नियमित पद्धति के अलावा कई अन्य तरीके से किए गए ज्ञानअर्जन की एक सुपरिभाषित मूल्यांकन प्रक्रिया के माध्यम से 'क्रेडिट योग्य' बनाया जा सकता है। शिक्षार्थी द्वारा प्राप्त क्रेडिट को ट्रांसक्रिप्ट में शामिल किया जाएगा जो डिग्री के अंतिम अवार्ड के लिए गिना जाएगा। यूजीसी द्वारा समय-समय पर ओडीएल, ऑनलाइन एवं आरपीएल पर अधिसूचित दिशानिर्देश/नियम लागू होंगे।

II. ओडीएल/ऑनलाइन मोड के अंतर्गत स्नातक प्रमाणपत्र, स्नातक डिप्लोमा एवं डिग्री कार्यक्रम केवल उन उच्च शिक्षा संस्थानों (HEIs) से प्राप्त किए जाएंगे, जो यूजीसी द्वारा ऐसे कार्यक्रम संचालित करने के लिए मान्यता प्राप्त हैं।

7.0 पाठ्यक्रम और 'क्रेडिट फ्रेमवर्क' -

पेशकश किए जाने वाले पाठ्यक्रमों के लिए पाठ्यक्रम विषयवस्तु, 'करिकुलम ट्रांजेक्शन', शैक्षिक प्रौद्योगिकियों, उनका समय-चयन, सतत् मूल्यांकन विधियां और मूल्यांकन के नए तरीकों के संबंध में मानदंड, विश्वविद्यालयों/ स्वायत्त महाविद्यालयों द्वारा, एनएचईक्यूएफ विकसित समग्र, बहु-विषयक शिक्षा, स्नातकपूर्व कार्यक्रम के लिए पाठ् यक्रम और क्रेडिट फ्रेमवर्क तथा स्नातकोत्तर कार्यक्रम के लिए पाठ्यक्रम और क्रेडिट फ्रेमवर्क के अनुरूप होंगे।

8.0 उपस्थिति संबंधी अपेक्षाएं -

एनईपी, 2020 द्वारा सुझाई गई विविध ज्ञानअर्जन की पद्धतियों तथा समग्र और बहु-विषयक ज्ञानअर्जन अवसरों को ध्यान में रखते हुए, उच्चतर शिक्षा संस्थान, विभिन्न कार्यक्रमों में छात्रों की न्यूनतम उपस्थिति संबंधी अपेक्षाओं का निर्णय अपने वैधानिक निकायों की स्वीकृति से करेंगे।

9.0 परीक्षा और मूल्यांकन -

I. विश्वविद्यालय, समय-समय पर परीक्षा के संचालन के संबंध में विश्वविद्यालय अनुदान आयोग और अन्य वैधानिक निकायों द्वारा जारी निदेशों/ दिशानिर्देशों को अंगीकार करेगा। यूजीसी द्वारा समय-समय पर ओडीएल, ऑनलाइन एवं आरपीएल पर अधिसूचित दिशानिर्देश/नियम लागू होंगे।

II. मूल्यांकन की इकाइयाँ, जैसे कि परीक्षण, संगोष्ठी, प्रस्तुतीकरण, कक्षा प्रदर्शन, क्षेत्रीय कार्य आदि, तथा प्रत्येक पाठ्यक्रम के संदर्भ में इन इकाइयों को प्रदान किया गया भारांक विश्वविद्यालय की सक्षम शैक्षणिक निकाय द्वारा निर्धारित किया जाएगा और इसे संबंधित शैक्षणिक वर्ष या सेमेस्टर के प्रारंभ में विद्यार्थियों को अवगत कराया जाएगा।

III. अंतिम परीक्षा का स्वरूप, चाहे वह लिखित (ऑनलाइन/ ऑफलाइन) हो अथवा मौखिक अथवा दोनों तरीकों से हो, प्रत्येक पाठ् यक्रम के संबंध में छात्रों को शिक्षा सत्र के प्रारंभ में भी बताया जाएगा।

IV. सेमेस्टर/ वर्षांत में होने वाली परीक्षाओं के अतिरिक्त प्रत्येक पाठ् यक्रम में सतत् रूप से मूल्यांकन होगा, और प्रत्येक पाठ् यक्रम के संबंध में क्रेडिट, उपयुक्त शैक्षणिक निकाय द्वारा निर्धारित किए जाएंगे और छात्रों को उनकी जानकारी दी जाएगी। जब तक कि छात्र को वांछित सक्षमताओं की प्राप्ति और किसी कार्यक्रम के परिणाम के लिए मूल्यांकन नहीं किया जाता है तब तक छात्र द्वारा कोई क्रेडिट अर्जित नहीं किया जा सकता है।

V. उच्चतर शिक्षा संस्थान, ग्रेड को प्रतिशत में बदलने तथा इसके प्रतिलोमत: एक तालिका तैयार करेंगे तथा उसे अपनाएंगे।

VI. जबकि, मूल्यांकन की वास्तविक प्रक्रिया गोपनीय होगी, मूल्यांकन प्रणाली पर्याप्त रूप से पारदर्शी होगी, तथा छात्र को विश्वविद्यालय द्वारा इस संबंध में निर्धारित प्रक्रिया के अनुसार उसकी उत्तर पुस्तिका तक पहुंच प्रदान की जाएगी।

VII. उच्चतर शिक्षा संस्थान, सतत् रचनात्मक मूल्यांकन को प्राथमिकता देंगे।

10.0 कौशल पाठ्यक्रमों और प्रशिक्षुता कार्यक्रमों का एकीकरण-

छात्र को किसी विधा में स्नातकपूर्व की डिग्री प्राप्त करने के लिए उक्त विधा में कुल क्रेडिट का कम से कम 50% अर्जित करना होगा। शेष 50% क्रेडिट के लिए, छात्र कौशल पाठ्यक्रम, प्रशिक्षुता और बहु-विधा से संबद्ध विषयों का चयन कर सकते हैं।

11.0 अवधि और प्रमाणन -

स्नातक डिग्री की अवधि तीन या चार वर्ष होगी, तथा स्नातकोत्तर डिग्री की अवधि सामान्यत: एक वर्ष या दो वर्ष होगी। हालांकि, परिशिष्ट-I के अनुसार, स्नातक डिग्री की अवधि कम या अधिक हो सकती है। स्नातक एवं स्नातकोत्तर दोनों कार्यक्रमों में राष्ट्रीय क्रेडिट रूपरेखा (NCrF) के अनुसार बहुस्तरीय प्रवेश एवं निर्गमन (Multiple Entry and Exit) की सुविधा होगी। किसी भी स्तर पर निर्गमन करने वाले विद्यार्थियों को, निर्धारित क्रेडिट संख्या के अतिरिक्त कार्य-आधारित व्यावसायिक/कौशल पाठ् यक्रमों से अर्जित अतिरिक्त क्रेडिट के आधार पर उपयुक्त प्रमाणपत्र प्रदान किया जाएगा, जैसा कि निम्नानुसार दिया गया है:

11.1 स्नातकपूर्व प्रमाणपत्र (अध्ययन का क्षेत्र/ विधा) -

I. जिन छात्रों ने एनसीआरएफ के स्तर 4.5 को पूरा करके कुल 40 क्रेडिट अर्जित किए हैं और स्नातकपूर्व कार्यक्रम से निकास कर गए हैं, उन्हें स्नातकपूर्व प्रमाणपत्र प्रदान किया जाएगा, बशर्ते कि उन्होंने स्तर 4.5 को पूरा करने के लिए अर्जित 40 क्रेडिट के अलावा न्यूनतम 4-क्रेडिट कौशल-संवर्द्धन पाठ् यक्रम(ओं) में भाग लिया हो।

II. छात्रों को अर्जित क्रेडिट की वैधता समाप्त होने से पूर्व, अधिकतम सात वर्ष की अवधि के भीतर, स्तर-5 पर द्वितीय वर्ष में पुन: प्रवेश लेने की अनुमति होगी। क्रेडिट के जमा करने एवं मोचन की प्रक्रिया यूजीसी (उच्च शिक्षा में अकादमिक बैंक ऑफ क्रेडिट की स्थापना एवं संचालन) विनियम, 2021 तथा समय-समय पर किए गए संशोधनों के अनुसार होगी।

11.2 स्नातकपूर्व डिप्लोमा (अध्ययन का क्षेत्र/ विधा) -

I. जिन छात्रों ने एनसीआरएफ के स्तर 4.5 और 5 को पूरा करके कुल 80 क्रेडिट अर्जित किए हैं और स्नातकपूर्व कार्यक्रम से निकास कर गए हैं, उन्हें स्नातकपूर्व डिप्लोमा प्रदान किया जाएगा, बशर्ते कि उन्होंने स्तर 5 को पूरा करने के लिए अर्जित 80 क्रेडिट के अतिरिक्त न्यूनतम 4-क्रेडिट कौशल-संवर्द्धन पाठ् यक्रम पूर्ण किया हो।

II. छात्रों को अर्जित क्रेडिट की वैधता समाप्त होने से पूर्व, अधिकतम सात वर्ष की अवधि के भीतर, स्तर-5.5 पर तृतीय वर्ष में पुनः प्रवेश लेने की अनुमति होगी। क्रेडिट के जमा करने एवं मोचन की प्रक्रिया यूजीसी (उच्च शिक्षा में अकादमिक बैंक ऑफ क्रेडिट की स्थापना एवं संचालन) विनियम, 2021 तथा समय-समय पर किए गए संशोधनों के अनुसार होगी।

11.3 स्नातकपूर्व डिग्री -

I. जो छात्रों एनसीआरएफ के स्तर 5.5 को पूर्ण करके कुल 120 क्रेडिट अर्जित कर चुके हैं और स्नातकपूर्व कार्यक्रम से निकास कर जाते हैं, उन्हें एक स्नातकपूर्व डिग्री प्रदान की जाएगी।

II. एनसीआरएफ (NCrF) के स्तर-5.5 पर आवश्यक क्रेडिट अर्जित करने वाले एवं तीन वर्ष के पश्चात स्नातक कार्यक्रम से निर्गमन करने वाले छात्र, अर्जित क्रेडिट की वैधता समाप्त होने से पूर्व, अधिकतम सात वर्ष की अवधि के भीतर, चतुर्थ वर्ष के स्नातक (ऑनर्स/ऑनर्स विद रिसर्च) कार्यक्रम में पुनः प्रवेश ले सकते हैं। क्रेडिट के जमा करने एवं मोचन की प्रक्रिया यूजीसी (उच्च शिक्षा में अकादमिक बैंक ऑफ क्रेडिट की स्थापना एवं संचालन) विनियम, 2021 तथा समय-समय पर किए गए संशोधनों के अनुसार होगी।

11.4 स्नातकपूर्व डिग्री (ऑनर्स/ शोध सहित ऑनर्स) -

I. जिन छात्रों ने एनसीआरएफ के स्तर 6 पर आवश्यक क्रेडिट अर्जित किए हैं**,** उन्हें स्नातकपूर्व (ऑनर्स/ शोध सहित ऑनर्स) डिग्री प्रदान की जाएगी।

II. जिन छात्रों ने दो प्रमुख विषयों के लिए आवश्यक क्रेडिट अर्जित किए हैं**,** उन्हें **'**डबल मेजर**'**/एकीकृत स्नातकपूर्व डिग्री के साथ स्नातकपूर्व डिग्री प्रदान की जाएगी।

III. प्रदान की जाने वाली डिग्री को विश्वविद्यालय अनुदान आयोग अधिनियम की धारा 22 (3) के तहत विश्वविद्यालय अनुदान आयोग द्वारा विनिर्दिष्ट नामपद्धति के अनुसार संबंधित विषय (विषयों) में स्नातकपूर्व डिग्री कहा जाएगा।

11.5 स्नातकोत्तर कार्यक्रम -

I. उच्चतर शिक्षा संस्थानों के पास विभिन्न अवधि के स्नातकोत्तर कार्यक्रम प्रदान करने का लचीलापन होगा जैसे (क) प्रथम वर्ष के अंत में निकास के विकल्प के साथ एक 2 वर्षीय कार्यक्रम, (ख) 1 वर्षीय कार्यक्रम, और (ग) एकीकृत 5 वर्षीय स्नातक/ स्नातकोत्तर कार्यक्रम।

II. 3 वर्षीय स्नातकपूर्व कार्यक्रम पूरा करने वाले छात्र, दो वर्षीय स्नातकोत्तर कार्यक्रम के लिए पात्र होंगे।

III. ऑनर्स/ शोध के साथ ऑनर्स, वाले 4 वर्षीय स्नातकपूर्व कार्यक्रम पूरा करने वाले छात्र एक वर्षीय स्नातकोत्तर कार्यक्रम के लिए पात्र होंगे।

IV. संगत विषयों में 4-वर्षीय स्नातकपूर्व डिग्री (ऑनर्स/ शोध सहित ऑनर्स) पूरा करने वाले छात्र (स्तर 6, उदाहरण के लिए भौतिकी में विज्ञान स्नातक (प्रवीण), जीव विज्ञान में विज्ञान स्नातक (प्रवीण), गणित में विज्ञान स्नातक (प्रवीण), और 4-वर्षीय स्नातकपूर्व डिग्री (स्तर 6, उदाहरण के लिए इंजीनियरी स्नातक, प्रौद्योगिकी स्नातक आदि) पूर्ण करने वाले छात्र 2-वर्षीय/4 सेमेस्टर के स्नातकोत्तर कार्यक्रम (स्तर 7, उदाहरण के लिए इंजीनियरी-निष्णात, प्रौद्योगिकी निष्णात आदि) के लिए पात्र होंगे।

V. वे छात्र जिन्होंने दो वर्षीय स्नातकोत्तर (स्तर 6.5/7) कार्यक्रम के प्रथम वर्ष (स्तर-6) को पूर्ण करके कुल 40 क्रेडिट अर्जित किए हैं, यदि वे निर्गमन करते हैं, तो उन्हें स्नातकोत्तर डिप्लोमा प्रदान किया जाएगा।

VI. तीन वर्षीय स्नातकपूर्व डिग्री (स्तर 5.5) धारक छात्र, जिन्होंने एनसीआरएफ के स्तर 6.5 पर आवश्यक क्रेडिट अर्जित किए हैं, उन्हें विश्वविद्यालय अनुदान आयोग अधिनियम की धारा 22 (3) के तहत विश्वविद्यालय अनुदान आयोग द्वारा विनिर्दिष्ट

नामपद्धति के अनुसार दो वर्षीय स्नातकोत्तर डिग्री जैसे कला निष्णात, वाणिज्य निष्णात, विज्ञान निष्णात आदि प्रदान की जाएगी।

VII. चार वर्षीय स्नातकपूर्व डिग्री (स्तर 6) धारक छात्र, जिसने एनसीआरएफ के स्तर 6.5 पर आवश्यक क्रेडिट अर्जित किए हैं, को विश्वविद्यालय अनुदान आयोग अधिनियम की धारा 22 (3) के तहत विश्वविद्यालय अनुदान आयोग द्वारा विनिर्दिष्ट नामपद्धति के अनुसार एक वर्षीय स्नातकोत्तर डिग्री जैसे कला निष्णात, वाणिज्य निष्णात, विज्ञान निष्णात आदि प्रदान की जाएगी।

VIII. चार वर्षीय स्नातकपूर्व डिग्री (स्तर 6) धारक छात्र, जिसने एनसीआरएफ के स्तर 7 पर आवश्यक क्रेडिट अर्जित किए हैं, उन्हें विश्वविद्यालय अनुदान आयोग अधिनियम की धारा 22 (3) के तहत विश्वविद्यालय अनुदान आयोग द्वारा विनिर्दिष्ट नामपद्धति के अनुसार इंजीनियरी-निष्णात, प्रौद्योगिकी निष्णात आदि जैसी स्नातकोत्तर डिग्री प्रदान की जाएगी।

12.0 पूर्व में प्राप्त किए गए ज्ञान को मान्यता -

औपचारिक शिक्षा से इतर या कार्यस्थल अथवा समुदाय में अधिगम एवं प्रशिक्षण के माध्यम से प्राप्त ज्ञान पूर्व अधिगम निष्पत्तियों के प्रमाणीकरण पर आधारित होगा। किसी विशेष व्यवसाय में अनुभव एवं विशेषज्ञता रखने वाले ऐसे व्यक्तियों का मूल्यांकन मान्यता प्राप्त उच्च शिक्षण संस्थानों द्वारा यूजीसी के "उच्च शिक्षा में पूर्व शिक्षण की मान्यता (RPL) के कार्यान्वयन हेतु दिशानिर्देश" तथा समय-समय पर किए गए संशोधनों के अनुसार किया जाएगा।

13.0 विनियमों का पालन न करने के परिणाम -

यदि कोई उच्चतर शिक्षा संस्थान (एचईआई) इन नियमों के उपबंधों का उल्लंघन करता है, तो आयोग उल्लंघनों की जांच करने के लिए एक जांच समिति का गठन करेगा। यदि आयोग द्वारा गठित जांच समिति द्वारा पाया जाता है कि उल्लंघन किए गए हैं तो एचईआई को:-

क) विश्वविद्यालय अनुदान आयोग योजनाओं में भाग लेने से वंचित कर दिया जाएगा।

ख) स्नातक प्रमाणपत्र, स्नातक डिप्लोमा एवं डिग्री कार्यक्रम संचालित करने से वंचित कर दिया जाएगा।

ग) ओडीएल और ऑनलाइन पद्धति से कार्यक्रमों की पेशकश करने से वंचित कर दिया जाएगा।

घ) विश्वविद्यालय अनुदान आयोग अधिनियम, 1956 की धारा 2(च) और 12ख के तहत अनुरक्षित उच्चतर शिक्षा संस्थानों की सूची से हटाया दिया जाएगा।

उच्चतर शिक्षा संस्थान पर उपर्युक्त में से एक या एक से अधिक कार्रवाई की जाएगी। इसके अलावा, विश्वविद्यालय अनुदान आयोग, मामला दर माला आधार पर आयोग के निर्णय के अनुसार अतिरिक्त दंडात्मक कार्रवाई कर सकता है।

प्रो. मनिष र. जोशी, सचिव

[विज्ञापन-III/4/असा./04/2025-26]

परिशिष्ट-I

उच्च शिक्षा संस्थानों द्वारा त्वरित और विस्तारित डिग्री प्रदान करना

नेशनल क्रेडिट फ्रेमवर्क (एनसीआरएफ) भिन्न ज्ञानअर्जन क्षमताओं वाले शिक्षार्थियों को आवश्यक क्रेडिट अर्जित करके किसी कार्यक्रम की मानक अवधि की तुलना में पाठ् यक्रम को तेज़ अथवा धीमी गति से पूरा करने में सक्षम बनाता है। उच्चतर शिक्षा संस्थान (एचईआई) मानक अवधि वाले कार्यक्रम में प्रवेश के लिए छात्र के अनुरोध का मूल्यांकन करने के पश्चात् मानक अवधि वाले डिग्री कार्यक्रमों के अतिरिक्त त्वरित डिग्री कार्यक्रम (एडीपी) और विस्तारित डिग्री कार्यक्रम (ईडीपीे) उपलब्ध करवा सकते हैं।

ये निर्देश उच्च शिक्षण संस्थानों (HEIs) को विस्तारित एवं तीव्रित डिग्री कार्यक्रमों के कार्यान्वयन में शैक्षणिक विषयवस्तु, क्रेडिट, मूल्यांकन विधियों एवं डिग्री प्रदान करने की प्रक्रिया संबंधी मार्गदर्शन प्रदान करेंगे:

- उच्चतर शिक्षा संस्थान, संस्वीकृत दाखिले के 10% तक को एडीपी के लिए निर्धारित कर सकते हैं।
- उच्चतर शिक्षा संस्थान, ईडीपी और एडीपी के तहत प्रथम अथवा द्वितीय सेमेस्टर के अंत में प्राप्त आवेदनों की जांच करने और तदनुसार छात्रों का चयन करने के लिए एक समिति का गठन कर सकते हैं।

- उच्चतर शिक्षा संस्थान द्वारा गठित समिति प्रथम अथवा द्वितीय सेमेस्टर में छात्रों के प्रदर्शन के आधार पर उसके क्रेडिट पूरा करने की क्षमता का मूल्यांकन करेगी तथा अपनी सिफारिशें देगी।
- समिति छात्रों द्वारा चुनी गई अवधि के अनुसार प्रति सेमेस्टर पाठ्यक्रमों की संख्या तथा कुल क्रेडिट में कमी या वृद्धि की सिफारिश करेगी।
- एडीपी तथा ईडीपी के तहत, प्रतिलेखों में केवल उन पाठ्यक्रमों को दर्ज किया जाना चाहिए जो छात्र एक सेमेस्टर में लेते हैं।

त्वरित डिग्री कार्यक्रम (एडीपी) -

- त्वरित डिग्री कार्यक्रम केवल स्नातकपूर्व स्तर पर ही लागू होंगे।
- एडीपी में, छात्र एक मानक अवधि के लिए कार्यक्रम हेतु निर्धारित समान पाठ्यक्रम विषयवस्तु और कुल क्रेडिट का पालन करेंगे। केवल कार्यक्रम की अवधि में बदलाव होगा। छात्रों के पास पहले सेमेस्टर या दूसरे सेमेस्टर के अंत में एडीपी का चुनाव करने का विकल्प होगा, उसके बाद नहीं। एडीपी का

  चुनाव करने वाले छात्रों को दूसरे या तीसरे सेमेस्टर से शुरू होने वाले प्रत्येक सेमेस्टर में अतिरिक्त क्रेडिट मिलेंगे, जो इस बात पर निर्भर करेगा कि वे एडीपी में कब जाते हैं। यदि वे पहले सेमेस्टर के बाद एडीपी में शामिल होते हैं, तो उन्हें दूसरे सेमेस्टर और उसके बाद से अतिरिक्त क्रेडिट मिलने प्रारंभ हो जाएंगे। इसी प्रकार, यदि वे दूसरे सेमेस्टर के बाद एडीपी में शामिल होते हैं, तो उन्हें तीसरे सेमेस्टर और उसके बाद से अतिरिक्त क्रेडिट मिलने प्रारंभ हो जाएंगे।
- किसी तीन वर्षीय स्नातकपूर्व कार्यक्रम में, छात्र अधिकतम एक सेमेस्टर तक अवधि को कम कर सकते हैं, उदाहरण के लिए, छात्र तीन वर्षीय स्नातकपूर्व कार्यक्रम के लिए आवश्यक कुल क्रेडिट पांच सेमेस्टर में अर्जित कर सकते हैं। इसी प्रकार, चार वर्षीय स्नातकपूर्व कार्यक्रम में, छात्र अवधि को एक सेमेस्टर अथवा अधिकतम दो सेमेस्टर तक कम कर सकते हैं, उदाहरण के लिए, छात्र चार वर्षीय स्नातकपूर्व कार्यक्रम के लिए अपेक्षित कुल क्रेडिट को छह अथवा सात सेमेस्टर में अर्जित कर सकते हैं। "स्नातकपूर्व कार्यक्रमों के लिए पाठ्यक्रम और क्रेडिट फ्रेमवर्क" में क्रेडिट संरचना के आधार पर समिति यह तय करेगी कि एडीपी में किसी एक सेमेस्टर में एक छात्र को न्यूनतम कितने क्रेडिट अर्जित करने होंगे।

विस्तारित डिग्री कार्यक्रम (ईडीपी) -

- विस्तारित डिग्री कार्यक्रम केवल स्नातकपूर्व कार्यक्रमों पर ही लागू होंगे।
- ईडीपी में, छात्र किसी मानक अवधि के लिए कार्यक्रम हेतु विहित समान पाठ्यक्रम विषयवस्तु और कुल क्रेडिटों का पालन करेंगे। केवल कार्यक्रम की अवधि में बदलाव होगा। छात्रों को केवल प्रथम सेमेस्टर अथवा द्वितीय सेमेस्टर के अंत में ईडीपी का चयन करने का विकल्प होगा, उसके बाद नहीं। तदनुसार, ईडीपी का चयन करने वाले छात्र को प्रत्येक सेमेस्टर में मानक अवधि वाले कार्यक्रम में अपेक्षित क्रेडिटों की तुलना में कम क्रेडिट मिलेंगे।
- किसी तीन वर्षीय अथवा चार वर्षीय स्नातकपूर्व कार्यक्रम में, अवधि को अधिकतम दो सेमेस्टर तक बढ़ाया जा सकता है। तदनुसार, छात्र प्रत्येक सेमेस्टर में कम क्रेडिट अर्जित कर सकते हैं। "स्नातकपूर्व कार्यक्रमों हेतु पाठ्यक्रम और क्रेडिट फ्रेमवर्क" में क्रेडिट संरचना के आधार पर, समिति यह तय करेगी कि ईडीपी में एक सेमेस्टर में एक छात्र को न्यूनतम कितने क्रेडिट अर्जित करने होंगे।

परीक्षा और मूल्यांकन प्रक्रिया -

- परीक्षा और मूल्यांकन प्रणाली, मानक अवधि वाले कार्यक्रम के समान ही रहेगी।

डिग्री प्रदान करना-

- उच्चतर शिक्षा संस्थान, चयन की गई अवधि (कम की गई अथवा विस्तारित अवधि) में कार्यक्रम पूरा करने पर विद्यार्थियों को डिग्री जारी कर सकते हैं और औपचारिक डिग्री प्रदान करने के लिए मानक अवधि को पूर्ण करने की प्रतीक्षा करने की आवश्यकता नहीं होगी।
- त्वरित और विस्तारित डिग्री के लिए, डिग्री में एक स्वत: पूर्ण टिप्पण जोड़ा जाना चाहिए जिसमें यह उल्लेख किया गया हो कि किसी मानक अवधि में आवश्यक शैक्षणिक अपेक्षाओं को, कम की गई अथवा विस्तारित अवधि में पूरा कर लिया गया है। चार वर्षीय स्नातकपूर्व कार्यक्रम के लिए एडीपी हेतु टिप्पण में यह विनिर्दिष्ट किया जाना चाहिए कि छात्र ने चार वर्षीय कार्यक्रम की शैक्षणिक अपेक्षाओं को छह अथवा सात सेमेस्टर, जैसा भी मामला हो, में पूर्ण किया है।

- सरकारी विभागों, निजी संगठनों और भर्ती एजेंसियों जैसे यूपीएससी/ राज्य सेवा आयोग आदि को एडीपी और ईडीपी डिग्रियों को मानक अवधि की डिग्रियों के समकक्ष ही मानना चाहिए।

UNIVERSITY GRANTS COMMISSION

NOTIFICATION

New Delhi, the 26th March, 2025

UGC (Minimum Standards of Instruction for the Grant of Undergraduate Degree and Postgraduate Degree) Regulations, 2025

F. No. 1-3/2021/QIP/Multiple Entry-Exit).—In exercise of the powers conferred by clauses (f) and (g) of sub-section (1) of Section 26 read with clause (j) of section 12 of the University Grants Commission Act, 1956 (3 of 1956) and in supersession of UGC (Minimum Standards of Instruction for the Grant of the First Degree through Formal Education) Regulations, 2003 and UGC (Minimum Standards of Instruction for the Grant of the Master's Degree through Formal Education) Regulations, 2003 and its amendments dated March 2008 and May 2014, the University Grants Commission hereby makes the following Regulations, namely:-

1.0 Short title, application, and commencement. -

a) These Regulations may be called the University Grants Commission (Minimum Standards of Instruction for the Grant of Undergraduate Degree and Postgraduate Degree) Regulations, 2025;

b) They shall come into force on the date of their publication in the Official Gazette.

2.0 Application.–

These Regulations shall apply to every University established or incorporated by or under a Central Act, a Provincial Act, or a State Act, all institutions and colleges recognized by or affiliated to such Universities, and all institutions deemed to be universities under Section 3 of the UGC Act 1956.

3.0 Definitions. ─ In these Regulations,

i. "Act" means the University Grants Commission Act, 1956 (3 of 1956);

ii. "Academic Council" or "Senate" means the body empowered to take decisions regarding all academic matters in a Higher Educational Institution;

iii. "Academic Year" means a duration of twelve months beginning either in January to February or in the month of July to August, as the case may be, of every calendar year;

iv. "Award" means qualifications such as certificate/diploma/degree awarded by competent bodies when a student has met the requirements of the qualification;

v. "Academic Bank of Credits" (ABC) means an academic service mechanism as a digital, virtual or online entity established by the Commission with the approval of the Central Government to facilitate students to become its academic account holders, thereby paving the way for seamless student mobility between or within degree-granting Higher Educational Institutions through a formal system of credit recognition, credit accumulation, credit transfers and credit redemption to promote distributed and flexible teaching-learning;

vi. "Assessment bands" means clubbing of levels between two mandatory stages as per NCrF. The NCrF levels are equated with the assessment stage which will be a mandatory stage for a student/learner to clear;

vii. "Biannual admission" means the process of admitting students twice a year i.e. July/August and January/February;

viii. "Commission" means the University Grants Commission established under Section 4 of the Act;

ix. "Course" means one of the specified units which go to comprise a specified programme of study;

x. "Credit" means the number of hours of instruction required per week over the duration of a semester as defined in the National Credit Framework (NCrF);

xi. "Credit requirements" means the value assigned for a course/programme. A student who has met the credit requirements means he/she has successfully completed the course/program;

xii. "Credit transfer" means the mechanism by which the Higher Educational Institutions registered with the ABC are able to receive or provide prescribed credits to individual Academic Bank Accounts in adherence to the norms for the courses undergone/experiences gained by the students through the offline/online/ ODL/Private/RPL mode;

xiii. "Degree" means a degree awarded by a Higher Educational Institution in accordance with the provisions of section 22(3) of the Act;

xiv. "Higher Educational Institution" (HEI) means a university or institution specified under clause 2 of these Regulations;

xv. "Learning outcomes" mean statements of what a learner knows, understands and is able to do on completion of a learning process and a programme/course of study;

xvi. "Levels" mean a series of sequential stages, as given in the National Credit Framework (NCrF), expressed in terms of a range of learning outcomes against which typical qualifications are positioned/located;

xvii. "Massive Open Online Courses (MOOCs)" mean such online courses that are developed as per the pedagogy following the four quadrant approach;

xviii. "Multiple entry and exit" means an enabling mechanism wherein the learner can exit after any level and join back to continue in the programme and acquire higher qualifications within a specified duration;

xix. "National Higher Education Qualifications Framework" means a descriptive framework that organizes qualifications according to a series of levels of knowledge/competencies/skills;

xx. "Online Mode" means a mode of providing flexible learning opportunities by overcoming the separation of teacher and learner using the internet, e-learning materials and full-fledged programme delivery through the internet using technology-assisted mechanisms and resources;

xxi. "Open and Distance Learning Mode" means a mode of providing flexible learning opportunities by overcoming the separation of teacher and learner using a variety of media, including print, electronic, online and occasional interactive face-to-face meetings with the learners or Learner Support Services to deliver teaching-learning experiences, including practical or work experiences;

xxii. "Programme" or "Programme of study" means a higher education programme pursued for a degree specified by the Commission under sub-section (3) of section 22 of the Act;

xxiii. "Recognition of Prior Learning" (RPL) means an assessment process designed to evaluate an individual's skills, knowledge, and experience acquired through formal, non-formal, or informal learning experiences;

xxiv. "UG Certificate" means a certificate after completing 1 year of study (2 semesters) in the chosen fields of study in a UG programme;

xxv. "UG Diploma" means a diploma awarded after 2 years (4 semesters) of study in the chosen fields of study in a UG programme;

xxvi. "University" means a Higher Educational Institution established or incorporated by or under a Central Act, a Provincial Act, or a State Act and shall include any institution for higher education deemed to be a University under Section 3 of the Act.

4.0 General Requirements for HEIs. -

1. HEIs prepared to handle biannual admissions may admit students twice a year, in July/August and January/February.

2. The student in-take capacity shall be determined by the university/institution in advance through its statutory bodies based on the academic and physical facilities available, the student-teacher ratio, the teaching-non-teaching ratio in accordance with the UGC guidelines/norms, and other statutory bodies concerned.

3. Every HEI shall lay down the norms concerning classrooms, laboratories, library, sports and health facilities, hostel accommodation, canteen/ cafeteria, and other facilities. While prescribing the norms for such facilities as a condition for affiliation, the HEI shall keep in view the guidelines/norms issued by the UGC and other statutory bodies concerned.

4. Integration of higher education, vocational education, training & skilling, and internship shall be made as part of the UG and PG curricular structure, in accordance with the Curriculum and Credit Frameworks for UG, PG, and Apprenticeship Embedded Degree Programmes, notified by the UGC.

5. HEIs shall provide multiple entry and exit options in the academic programmes.

6. Mobility of a student from vocational education to general education or vice-versa, shall be as per the procedure prescribed in the relevant guidelines issued by the regulatory bodies concerned.

5.0 Eligibility criteria for admission (Undergraduate / Postgraduate). -

1. A student who has passed Level 4/Class 12 schooling (either through formal schooling or through the open

school system) or its equivalent shall be eligible for admission to an undergraduate programme or Integrated undergraduate/postgraduate degree programme.

2. Irrespective of the disciplines taken by a student in level 4/class 12 schooling, a student is eligible for admission in any discipline of UG programme if the student qualifies the National level or University level entrance examination in the discipline of UG programme. Where required, the university may provide the necessary bridge courses to the students to address the knowledge gaps which may arise when students from varied disciplines are admitted.

3. A student shall be eligible for admission to a postgraduate degree programme if he/she has passed a 3-year undergraduate degree (level 5.5, a total of 120 credits) / 4-year undergraduate degree with Honours/Honours with Research (level 6, a total of 160 credits).

4. Irrespective of the major or minor disciplines taken by a student in a UG programme, a student is eligible for admission in any discipline of PG programmes if the student qualifies for the National level or University level entrance examination in the discipline of PG programme.

5. A student can pursue two UG programmes simultaneously with flexibility in terms of change of discipline/institution/mode of learning as given in the UGC's Curriculum and Credit Framework for Undergraduate Programmes, and Guidelines for Pursuing Two Academic Programmes simultaneously.

6. A student can pursue two PG programmes simultaneously with flexibility in terms of change of discipline/institution/mode of learning as given in the UGC's Curriculum and Credit Framework for Postgraduate Programmes and Guidelines for Pursuing Two Academic Programmes simultaneously.

6.0 Accumulation of credits as part of UG/PG programme other than regular modes. -

1. Learnings from multiple modes other than regular modes such as ODL, Online and RPL modes are creditizable through a well-defined assessment process. The credits obtained by the learner shall be incorporated in the transcripts that count for the final award of the degree. The guidelines/regulations notified by UGC from time to time on ODL, Online and RPL shall be applicable.

2. UG Certificate, UG Diploma and Degree programmes under ODL/Online mode shall be pursued with only such HEIs which are recognized by UGC for running such programmes.

7.0 Curriculum and Credit Framework. -

The norms with respect to the curriculum content, curriculum transaction, educational technologies for the courses offered, their timing, continuous evaluation methods, and novel methods of assessment shall be as decided by the universities/autonomous colleges in accordance with holistic, multidisciplinary education advanced by NHEQF, Curriculum and Credit Framework for Undergraduate Programme and Curriculum and Credit Framework for Postgraduate Programme.

8.0 Attendance Requirement. -

Considering the diverse learning modes and holistic and multidisciplinary learning opportunities suggested by NEP 2020, HEIs shall decide on the minimum attendance requirement of students in different programmes with the approval of their statutory bodies.

9.0 Examinations and Evaluation. -

1. The university shall adopt the directions/guidelines issued by the UGC and other statutory bodies concerned from time to time with respect to the conduct of examinations.
2. The units of evaluation, namely, tests, seminars, presentations, class performance, fieldwork, etc., and the weightage assigned to each of such units in respect of each course shall be determined by the appropriate academic body of the university and shall be made known to the students at the beginning of the academic session of the year, or the semester, as the case may be.
3. The nature of the final examination, whether written (online/offline) or oral or both, with respect to each course shall also be made known to the students at the beginning of the academic session.
4. There shall be continuous evaluation in each course in addition to semester/year-end examinations, and the credits in respect of each course shall be prescribed by the appropriate academic body and made known to the students. No credit can be earned by the student unless the student is assessed for the achievement of the desired competencies and outcome of a program.
5. The HEIs shall work out and adopt a table of conversion of grades into percentages and vice-versa.
6. While the actual process of evaluation shall be confidential, the system of evaluation shall be sufficiently transparent, and a student shall be given access to his/her answer script as per the procedure laid down in this regard by the university.
7. HEIs shall accord priority to continuous formative assessment.

10.0 Integration of Skill Courses and Apprenticeships. -

A student has to earn a minimum of 50% of total credits in a discipline to earn an undergraduate degree with a major in that discipline. For the remaining 50% credits, the students may choose skill courses, apprenticeships and multidisciplinary subjects.

11.0 Duration and Certification. -

The duration of an undergraduate degree shall be either 3 or 4 years, and a postgraduate degree shall normally be either 1 year or 2 years. However, the duration of an undergraduate degree can be shorter or longer, as per Annexure I. Both UG and PG programmes shall have multiple entry multiple exit points as given in the NCrF. Students, when they exit after any level, shall be awarded appropriate certification based on the additional credits they earn from work-based vocational/skill courses over and above the prescribed number of credits, as given below:

11.1 Undergraduate Certificate (Field of Study/Discipline). -

i. Students who have earned a total of 40 credits by completing level 4.5 of NCrF and exit from the undergraduate programme shall be awarded an undergraduate certificate provided they have undergone a minimum 4-credit skill-enhancement course(s) over and above the 40 credits earned for completing level 4.5.

ii. Students shall be allowed to join back in the 2nd year at level 5 before the expiry of the credits earned, subject to a maximum duration of seven years. The procedure for depositing and redemption of credits shall be as per the UGC (Establishment and Operation of Academic Bank of Credits in Higher Education) Regulations, 2021, as amended from time to time.

11.2 Undergraduate Diploma (Field of Study/Discipline). -

i. Students who have earned a total of 80 credits by completing levels 4.5 and 5 of NCrF and exit from the undergraduate programme shall be awarded an undergraduate diploma provided they have undergone a minimum 4-credit skill-enhancement course(s) over and above the 80 credits earned for completing level 5.

ii. Students shall be allowed to join back in the 3rd year at level 5.5 at a later stage before the expiry of the credits earned, subject to a maximum duration of seven years. The procedure for depositing and redemption of credits shall be as per the UGC (Establishment and Operation of Academic Bank of Credits in Higher Education) Regulations, 2021, as amended from time to time.

11.3 Undergraduate degree. -

i. Students who have earned a total of 120 credits by completing level 5.5 of NCrF and exit from the undergraduate programme shall be awarded an undergraduate degree.

ii. Students who have earned the required credits at level 5.5 of NCrF and exit from the undergraduate programme after 3 years can resume the 4th year undergraduate (Honours/Honours with Research) programme at a later stage before the expiry of the credits earned, subject to a maximum duration of seven years. The procedure for depositing and redemption of credits shall be as per the UGC (Establishment and Operation of Academic Bank of Credits in Higher Education) Regulations, 2021, as amended from time to time.

11.4 Undergraduate degree (Honours/Honours with Research). -

i. Students who have earned the required credits at level 6 of NCrF shall be awarded an undergraduate (Honours/Honours with Research) degree.

ii. Students who have earned the required credits for two majors shall be awarded an undergraduate degree with a double major/integrated UG degree.

iii. The degree to be awarded shall be called the undergraduate degree in the respective discipline(s) in accordance with the nomenclature specified by the UGC under Section 22 (3) of the UGC Act.

11.5 Postgraduate Programme. -

i. HEIs shall have the flexibility to offer postgraduate programmes with different durations viz. (a) a 2-year programme with an exit option at the end of the first year, (b) a 1-year programme, and (c) an integrated 5-year undergraduate/ postgraduate programme.

ii. Students completing a 3-year undergraduate programme shall be eligible for a two-year postgraduate programme.

iii. Students completing a 4-year undergraduate programme with Honours/Honours with Research shall be eligible for a one-year postgraduate programme.

iv. Students completing a 4-year undergraduate degree (Hons./Hons. with Research) in relevant subjects (level 6, e.g. B.Sc. Hons. in Physics, B.Sc. Hons. in Biology, B.Sc. Hons. in Mathematics) and students completing a 4-year undergraduate degree (level 6, e.g. B.E., B. Tech., etc.) shall be eligible for the 2-year/4 semester postgraduate programme (level 7, e.g. M.E., M.Tech. etc.).

v. Students who have earned a total of 40 credits by completing the first year (level 6) of two-year PG (level 6.5/7) of NCrF and, if exit, shall be awarded a postgraduate diploma.

vi. A student with a 3-year undergraduate degree (level 5.5) who has earned required credits at level 6.5 of NCrF shall be awarded a 2-year postgraduate degree such as M.A., M.Com., M.Sc. etc., in accordance with the nomenclature specified by the UGC under Section 22 (3) of the UGC Act.

vii. A student with a 4-year undergraduate degree (level 6) who has earned required credits at level 6.5 of NCrF shall be awarded a 1-year postgraduate degree such as M.A., M.Com., M.Sc. etc., in accordance with the nomenclature specified by the UGC under Section 22 (3) of the UGC Act.

viii. A student with a 4-year undergraduate degree (level 6) who has earned the required credits at level 7 of NCrF shall be awarded a postgraduate degree such as M.E., M. Tech. etc., in accordance with the nomenclature specified by the UGC under Section 22 (3) of the UGC Act.

12.0 Recognition of Prior Learning. -

Learnings achieved outside of formal learning or through learning and training in the workplace or in the community shall be based on the validation of prior learning outcomes achieved. Such individuals with experience and expertise in any particular profession shall be assessed by the recognized higher education institutions as per the UGC "Guidelines for Implementation of Recognition of Prior Learning (RPL) in Higher Education, as amended from time to time.

13.0 Consequence of failure to comply with the Regulations. -

If any HEI violates the provisions of these regulations, the Commission shall constitute an enquiry committee to look into the violations. If the violations are established by the enquiry committee set up by the Commission, the HEI shall be:—

(a) Debarred from participating in UGC schemes.

(b) Debarred from offering UG Certificate, UG Diploma and degree programmes.

(c) Debarred from offering ODL and online mode programmes.

(d) Removed from the list of HEIs maintained under Section 2(f) and 12B of UGC Act 1956.

The HEI shall be subjected to one or more of the above actions. Further, UGC may take additional punitive actions as per the decision of the Commission on a case-to-case basis.

Prof. MANISH R. JOSHI, Secy.

[ADVT.III/4Exty./04/2025-26]

(Annexure I)

Award of Accelerated and Extended Degrees

by Higher Education Institutions

The National Credit Framework (NCrF) enables learners with varying learning abilities to move through the curriculum at rates faster or slower than the standard duration of a programme by earning the required credits. Higher Education Institutions (HEIs) may provide Accelerated Degree Programme (ADP) and Extended Degree Programme (EDP) in addition to degree programmes with standard duration after evaluating the student's request for admission to a programme with a standard duration.

These instructions will guide Higher Education Institutions (HEIs) in the academic content, credits, assessment methods and degree awarding while implementing extended and accelerated degrees.

- HEIs may earmark up to 10% of sanctioned intake for ADP.
- HEIs may constitute a committee to scrutinize applications received at the end of the first or the second semester under EDP and ADP and select students accordingly.
- The Committee constituted by the HEI will evaluate the credit-completing potential of a student based on their performance in the first or the second semester and give its recommendations.

- The Committee shall recommend a reduction or an increase in the number of courses and total credits per semester, as per the duration opted by the students.
- Under the ADP and EDP, the transcripts should record only the courses the students take in a semester.

Accelerated degree programme (ADP). -

- Accelerated degree programmes shall be applicable only at the undergraduate level.
- In the ADP, students will follow the same curriculum content and total credits prescribed for the programme for a standard duration. The only change will be in the duration of the programme. Students shall have the option to choose ADP either at the end of the first semester or the second semester and not beyond that. Students opting for the ADP will earn additional credits per semester starting from the second or third semester, depending on when they transition to the ADP. If they join the ADP after the first semester, they will begin earning extra credits from the second semester onward. Similarly, if they join the ADP after the second semester, the additional credit load will start from the third semester onward.
- In a 3-year undergraduate programme, students can shorten the duration by a maximum of one semester, e.g. students can earn the total credits needed for a 3-year undergraduate programme in five semesters. Similarly, in a 4-year undergraduate programme, students can shorten the duration by one semester or a maximum of two semesters, e.g. students can earn the total credits required for a 4-year undergraduate programme in six or seven semesters. Based on the credit structure in the "Curriculum and Credit Framework for Undergraduate Programmes", the Committee shall decide the minimum number of credits a student must earn in a semester in ADP.

Extended Degree Programme (EDP). -

- Extended degree programmes shall be applicable for undergraduate programmes only.
- In the EDP, students will follow the same curriculum content and total credits prescribed for the programme for a standard duration. The only change will be in the duration of the programme. Students shall have the option to choose EDP either at the end of the first semester or the second semester and not beyond that. Accordingly, students who opt for EDP will earn fewer credits every semester than those required in a programme with a standard duration.
- In a 3-year or 4-year undergraduate programme, the duration may be extended up to a maximum of two semesters. Accordingly, students can earn fewer credits in each semester. Based on the credit structure in the "Curriculum and Credit Framework for Undergraduate Programmes", the Committee shall decide the minimum number of credits a student must earn in a semester in EDP.

Examination and Evaluation Process. -

- The examination and evaluation system will remain the same as the programme with a standard duration.

Award of degrees. -

- HEIs may issue degrees for students on completion of the programme in the opted duration (shortened or extended duration) and need not wait to complete the standard duration for the award of the formal degree.
- For the accelerated and extended degrees, a self-contained note should be added in the degree stating that the academic requirements required in a standard duration have been completed in a shortened or extended duration. For an ADP of 4-year undergraduate programme, the note should specify that the student completed the academic requirements of a 4-year programme in six or seven semesters, as the case may be.
- Government departments, private organizations, and recruiting agencies like UPSC/State Service Commission, etc., should treat the degrees from ADP and EDP on par with degrees with standard duration.

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CURRICULUM AND CREDIT FRAMEWORK FOR UNDERGRADUATE PROGRAMMES



UNIVERSITY GRANTS COMMISSION

BAHADUR SHAH ZAFAR MARG,
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Contents

S. No.	Particulars	Page No.
	Forward	4
1.	Introduction	5
2.	Anchors to the National Education Policy 2020	5
3.	Curriculum Framework	8
4.	Outcomes-based approach to higher education	14
5.	Structure of the Undergraduate Programme	19
6.	Pedagogical approaches	28
7.	Learning assessment	29
	Acknowledgements	32

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Chairman

सत्यमेव जयते

ज्ञान-विज्ञान विमुक्तये

विश्वविद्यालय अनुदान आयोग
शिक्षा मंत्रालय, भारत सरकार
University Grants Commission
Ministry of Education, Govt. of India

7th December, 2022

Foreword

National Education Policy (NEP) 2020highlights that quality higher education must aim to develop good, thoughtful, well-rounded, and creative individuals. The way to achieve suchcapabilities is only through holistic and multidisciplinary educationwith the freedom for students to shape their studies.

Keeping in view of NEP's recommendations, the UGC has revised the Choice Based Credit System and developed a new Curriculum and Credit Framework for Undergraduate Programmes. The framework reflects the NEP's recommendationssuch as restructured degree programmes, multiple entry and exit, flexible degree options with single major, double major, multi-/inter-disciplinary choices, and a curriculum built with employability skills in addition to academic subjects.

I am delighted to share the Curriculum and Credit Framework for Undergraduate Programmes for implementation in Higher Educational Institutions. I hope this framework will serve as a guiding document and help universities and colleges in undertaking the revision of the curriculum.

I take this opportunity to sincerely acknowledge the significant contribution of the expert committee under the Chairmanship of Prof. R. P. Tiwari and UGC officials in developing the Curriculum and Credit Framework for Undergraduate Programmes.

M Jagadeshkumar

(Prof. M. Jagadesh Kumar)

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Curriculum and Credit Framework for Undergraduate Programmes

1.0. Introduction

The National Education Policy (NEP) 2020 (hereafter referred to as NEP or Policy) recognizes that higher education plays an extremely important role in promoting human as well as societal well-being and in developing India as envisioned in its Constitution - a democratic, just, socially conscious, cultured, and humane nation upholding liberty, equality, fraternity, and justice for all. It notes that "given the 21st-century requirements, quality higher education must aim to develop good, thoughtful, well-rounded, and creative individuals".

The NEP 2020 states, *"Assessments of educational approaches in undergraduate education that integrate the humanities and arts with Science, Technology, Engineering and Mathematics (STEM) have consistently shown positive learning outcomes, including increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills, more in-depth learning and mastery of curricula across fields, increases in social and moral awareness, etc., besides general engagement and enjoyment of learning"*

Further, it also recommends that *"the undergraduate degree will be of either 3 or 4-year duration, with multiple exit options within this period, with appropriate certifications, e.g., a UG certificate after completing 1 year in a discipline or field including vocational and professional areas, or a UG diploma after 2 years of study, or a Bachelor's degree after a 3-year programme. The 4-year multidisciplinary Bachelor's programme, however, shall be the preferred option since it allows the opportunity to experience the full range of holistic and multidisciplinary education in addition to a focus on the chosen major and minors as per the choices of the student".*

In accordance with the NEP 2020, the UGC has formulated a new student-centric "Curriculum and Credit Framework for Undergraduate Programmes (CCFUP)" incorporating a flexible choice-based credit system, multidisciplinary approach, and multiple entry and exit options. This will facilitate students to pursue their career path by choosing the subject/field of their interest.

2.0. Anchors to the National Education Policy 2020

2.1. NEP principles that have a bearing on the curricular thrusts at different stages of higher education

The NEP highlights certain fundamental principles that would guide both the education system at large, as well as individual educational institutions. The principles that have a direct bearing on the curricula for different levels of higher education include:

i. Recognizing, identifying, and fostering the unique capabilities of each student to promote her/his holistic development;

ii. Flexibility, so that learners can select their learning trajectories and programmes, and thereby choose their own paths in life according to their talents and interests;

iii. Flexibility, so that learners can select their learning trajectories and programmes, and thereby choose their own paths in life according to their talents and interests;

iv. Multidisciplinary and holistic education across the sciences, social sciences, arts, humanities, and sports for a multidisciplinary world;

v. Emphasis on conceptual understanding rather than rote learning, critical thinking to encourage logical decision-making and innovation; ethics and human & constitutional values, and life skills such as communication, teamwork, leadership, and resilience;

vi. Extensive use of technology in teaching and learning, removing language barriers, increasing access for *Divyang* students, and educational planning and management;

vii. Respect for diversity and respect for the local context in all curricula, pedagogy, and policy;

viii. Equity and inclusion as the cornerstone of all educational decisions to ensure that all students are able to thrive in the education system and the institutional environment are responsive to differences to ensure that high-quality education is available for all.

ix. Rootedness and pride in India, and its rich, diverse, ancient, and modern culture, languages, knowledge systems, and traditions.

2.2. Transformative initiatives that have a bearing on the undergraduate education

The NEP envisages several transformative initiatives in higher education. These include:

- Introducing holistic and multidisciplinary undergraduate education that would help develop all capacities of human beings - intellectual, aesthetic, social, physical, emotional, ethical, and moral - in an integrated manner; soft skills, such as complex problem solving, critical thinking, creative thinking, communication skills; and rigorous specialization in a chosen field (s) of learning.

- Adoption of flexible curricular structures in order to enable creative combinations of disciplinary areas for study in multidisciplinary contexts that would also allow flexibility in course options that would be on offer to students, in addition to rigorous specialization in a subject or subjects.

- Undergraduate degree programmes of either 3 or 4-year duration, with multiple entry and exit points and re-entry options, with appropriate certifications such as:

- a UG certificate after completing 1 year (2 semesters) of study in the chosen fields of study,

- a UG diploma after 2 years (4 semesters) of study,

- a bachelor's degree after a 3-year (6 semesters) programme of study,

- a 4-year bachelor's degree (honours) after eight semesters programme of study. If the student completes a rigorous research project in their major area(s) of study in the 4th year of a bachelor's degree (honours with research).

- The 4-year bachelor's degree programme is considered a preferred option since it would provide the opportunity to experience the full range of holistic and multidisciplinary education in addition to a focus on the chosen major and minors as per the choices of the student.

- Inclusion of credit-based courses and projects in the areas of community engagement and service, environmental education, and value-based education.

- Environment education to include areas such as climate change, pollution, waste management, sanitation, conservation of biological diversity, management of biological resources and biodiversity, forest and wildlife conservation, and sustainable development and living.

- Value-based education to include the development of humanistic, ethical, Constitutional, and universal human values of truth, righteous conduct, peace, love, nonviolence, scientific temper, citizenship values, and life skills.

- Lessons in service and participation in community service programmes to be an integral part of holistic education.

- Global Citizenship Education and education for sustainable development to form an integral part of the curriculum to empower learners to become aware of and understand global and sustainable development issues and to become active promoters of more peaceful, tolerant, inclusive, secure, and sustainable societies.

- Students to be provided with opportunities for internships with local industry, businesses, artists, crafts persons, etc., as well as research internships with faculty and researchers at their own or other HEIs/research institutions, so that students may actively engage with the practical side of their learning and, as a by-product, further improve their employability.

- Reorienting teaching programmes to ensure the development of capabilities across a range of disciplines including sciences, social sciences, arts, humanities, languages, as well as vocational subjects. This would involve offering programmes/courses of study relating to Languages, Literature, Music, Philosophy, Art, Dance, Theatre, Statistics, Pure and Applied Sciences, Sports, etc., and other such subjects needed for a multidisciplinary and stimulating learning environment.

Preparing professionals in cutting-edge areas that are fast gaining prominence, such as Artificial Intelligence (AI), 3-D machining, big data analysis, and machine learning, in addition to genomic studies, biotechnology, nanotechnology, neuroscience, with important applications to health, environment, and sustainable living that will be woven into undergraduate education for enhancing the employability of the youth.

3.0. Curriculum Framework

3.1. Main features of the New Curriculum Framework

The new curriculum framework will have the following features:

i. Flexibility to move from one discipline of study to another;
ii. Opportunity for learners to choose the courses of their interest in all disciplines;
iii. Facilitating multiple entry and exit options with UG certificate/ UG diploma/ or degree depending upon the number of credits secured;
iv. Flexibility for learners to move from one institution to another to enable them to have multi and/or interdisciplinary learning;
v. Flexibility to switch to alternative modes of learning (offline, ODL, and Online learning, and hybrid modes of learning).

Regulations for Academic Bank of Credit (ABC) and guidelines for Multiple Entry and Exit are already in place to facilitate the implementation of the proposed "Curriculum and Credit Framework for Undergraduate Programmes".

3.2 Definitions, Eligibility, and Duration of the Programme

3.2.1 Semester/Credits:

- A semester comprises 90 working days and an academic year is divided into two semesters.
- A summer term is for eight weeks during summer vacation. Internship/apprenticeship/work-based vocational education and training can be carried out during the summer term, especially by students who wish to exit after two semesters or four semesters of study. Regular courses may also be offered during the summer on a fast-track mode to enable students to do additional courses or complete backlogs in coursework. The HEIs can decide on the courses to be offered in the summer term depending on the availability of faculty and the number of students.

3.2.2 Major and Minor disciplines

Major discipline is the discipline or subject of main focus and the degree will be awarded in that discipline. Students should secure the prescribed number of credits (about 50% of total credits) through core courses in the major discipline.

Minor discipline helps a student to gain a broader understanding beyond the major discipline. For example, if a student pursuing an Economics major obtains a minimum of 12 credits from a bunch of courses in Statistics, then the student will be awarded B.A. degree in Economics with a Minor in Statistics.

3.2.3 Awarding UG Certificate, UG Diploma, and Degrees

UG Certificate: Students who opt to exit after completion of the first year and have secured 40 credits will be awarded a UG certificate if, in addition, they complete one vocational course of 4 credits during the summer vacation of the first year. These students are allowed to re-enter the degree programme within three years and complete the degree programme within the stipulated maximum period of seven years.

UG Diploma: Students who opt to exit after completion of the second year and have secured 80 credits will be awarded the UG diploma if, in addition, they complete one vocational course of 4 credits during the summer vacation of the second year. These

students are allowed to re-enter within a period of three years and complete the degree programme within the maximum period of seven years.

3-year UG Degree: Students who wish to undergo a 3-year UG programme will be awarded UG Degree in the Major discipline after successful completion of three years, securing 120 credits and satisfying the minimum credit requirement as given in table 2 (Section 5).

4-year UG Degree (Honours): A four-year UG Honours degree in the major discipline will be awarded to those who complete a four-year degree programme with 160 credits and have satisfied the credit requirements as given in table 2 in Section 5.

4-year UG Degree (Honours with Research): Students who secure 75% marks and above in the first six semesters and wish to undertake research at the undergraduate level can choose a research stream in the fourth year. They should do a research project or dissertation under the guidance of a faculty member of the University/College. The research project/dissertation will be in the major discipline. The students who secure 160 credits, including 12 credits from a research project/dissertation, are awarded UG Degree (Honours with Research).

Infrastructure Requirement: The Departments offering a 4-year UG Degree (Honours with Research) must have the required infrastructure such as the library, access to journals, computer lab and software, laboratory facilities to carry out experimental research work, and at least two permanent faculty members who are recognized as Ph.D. supervisors. The Departments already recognized for conducting the Ph.D. programme may conduct a 4-year UG Degree (Honours with Research) without obtaining any approval from the affiliating University.

UG Degree Programmes with Single Major: A student has to secure a minimum of 50% credits from the major discipline for the 3-year/4-year UG degree to be awarded a single major. For example, in a 3-year UG programme, if the total number of credits to be earned is 120, a student of Physics with a minimum of 60 credits will be awarded a B.Sc. in Physics with a single major. Similarly, in a 4-year UG programme, if the total number of credits to be earned is 160, a student of Physics with a minimum of 80 credits will be awarded a B.Sc. (Hons./Hon. With Research) in Physics in a 4-year UG programme with single major.

UG Degree Programmes with Double Major: A student has to secure a minimum of 40% credits from the second major discipline for the 3-year/4-year UG degree to be awarded a double major. For example, in a 3-year UG programme, if the total number of credits to be earned is 120, a student of Physics with a minimum of 48 credits will be

awarded a B.Sc. in Physics with a double major. Similarly, in a 4-year UG programme, if the total number of credits to be earned is 160, a student of Physics with a minimum of 64 credits will be awarded a B.Sc. (Hons./Hon. With Research) in Physics in a 4-year UG programme with double major.

Interdisciplinary UG Programmes: The credits for core courses shall be distributed among the constituent disciplines/subjects so as to get core competence in the interdisciplinary programme. For example, a degree in Econometrics requires courses in economics, statistics, and mathematics. The total credits to core courses shall be distributed so that the student gets full competence in Econometrics upon completion of the programme. The degree for such students will be awarded as B.Sc. in Econometrics for a 3-year UG programme or B.Sc. (Honours) / B.Sc. (Honours with Research) in Econometrics for a 4-year UG programme.

Multidisciplinary UG Programmes: In the case of students pursuing a multidisciplinary programme of study, the credits to core courses will be distributed among the broad disciplines such as Life sciences, Physical Sciences, Mathematical and Computer Sciences, Data Analysis, Social Sciences, Humanities, etc., For example, a student who opts for a UG program in Life sciences will have the total credits to core courses distributed across Botany, Zoology and Human biology disciplines. The degree will be awarded as B.Sc. in Life Sciences for a 3-year programme and B.Sc. (Honours) in Life Sciences or B.Sc. (Honours with Research) for a 4-year programme without or with a research component respectively.

The statutory bodies of the Universities and Colleges such as the Board of Studies and Academic Council will decide on the list of courses under major category and credit distribution for double major, interdisciplinary and multidisciplinary programmes.

3.2.4 Credit hours for different types of courses

The workload relating to a course is measured in terms of credit hours. A credit is a unit by which the coursework is measured. It determines the number of hours of instruction required per week over the duration of a semester (minimum 15 weeks).

Each course may have only a lecture component or a lecture and tutorial component or a lecture and practicum component or a lecture, tutorial, and practicum component, or only practicum component. For example, a three-credit lecture course in a semester means three one-hour lectures per week with each one-hour lecture counted as one credit. In a semester of 15 weeks duration, a three-credit lecture course is equivalent to 45 hours of teaching.

One credit for tutorial work means one hour of engagement per week. In a semester of 15 weeks duration, a one-credit tutorial in a course is equivalent to 15 hours of engagement.

A one-credit course in practicum or lab work, community engagement and services, and fieldwork in a semester mean two-hour engagement per week. In a semester of 15 weeks duration, a one-credit practicum in a course is equivalent to 30 hours of engagement.

A one-credit of Seminar or Internship or Studio activities or Field practice/projects or Community engagement and service means two-hour engagements per week. Accordingly, in a semester of 15 weeks duration, one credit in these courses is equivalent to 30 hours of engagement.

A course can have a combination of lecture credits, tutorial credits, and practicum credits. For example, a 4–credit course with three credits assigned for lectures and one credit for practicum shall have three 1-hour lectures per week and one 2-hour duration field-based learning/project or lab work, or workshop activities per week. In a semester of 15 weeks duration, a 4-credit course is equivalent to 45 hours of lectures and 30 hours of practicum. Similarly, a 4 –credit course with 3- credits assigned for lectures and one credit for tutorial shall have three 1-hour lectures per week and one 1-hour tutorial per week. In a semester of 15 weeks duration, a four-credit course is equivalent to 45 hours of lectures and 15 hours of tutorials.

The following types of courses/activities constitute the programmes of study. Each of them will require a specific number of hours of teaching/guidance and laboratory/studio/workshop activities, field-based learning/projects, internships, and community engagement and service

- ***Lecture courses:*** Courses involving lectures relating to a field or discipline by an expert or qualified personnel in a field of learning, work/vocation, or professional practice.

- ***Tutorial courses:*** Courses involving problem-solving and discussions relating to a field or discipline under the guidance of qualified personnel in a field of learning, work/vocation, or professional practice.

- ***Practicum or Laboratory work:*** A course requiring students to participate in a project or practical or lab activity that applies previously learned/studied principles/theory related to the chosen field of learning, work/vocation, or professional practice under the supervision of an expert or qualified individual in the field of learning, work/vocation or professional practice.

- ***Seminar:*** A course requiring students to participate in structured discussion/conversation or debate focused on assigned tasks/readings, current or historical events, or shared experiences guided or led by an expert or qualified personnel in a field of learning, work/vocation, or professional practice.

- ***Internship:*** A course requiring students to participate in a professional activity or work experience, or cooperative education activity with an entity external to the education institution, normally under the supervision of an expert of the given external entity. A key aspect of the internship is induction into actual work situations**.** Internships involve working with local industry, government or private organizations, business organizations, artists, crafts persons, and similar entities to provide opportunities for students to actively engage in on-site experiential learning.

- ***Studio activities:*** Studio activities involve the engagement of students in creative or artistic activities. Every student is engaged in performing a creative activity to obtain a specific outcome. Studio-based activities involve visual- or aesthetic-focused experiential work.

- ***Field practice/projects*****:** Courses requiring students to participate in field-based learning/projects generally under the supervision of an expert of the given external entity.

- ***Community engagement and service*****:** Courses requiring students to participate in field-based learning/projects generally under the supervision of an expert of the given external entity. The curricular component of 'community engagement and service' will involve activities that would expose students to the socio-economic issues in society so that the theoretical learnings can be supplemented by actual life experiences to generate solutions to real-life problems.

3.2.5 Number of Credits by Type of Course

The hallmark of the new curriculum framework is the flexibility for the students to learn courses of their choice across various branches of undergraduate programmes. This requires that all departments prescribe a certain specified number of credits for each course and common instruction hours (slot time). **The proposed number of credits per course and the credit distribution is suggestive and the HEIs may decide on course credits and distribution over 6/8 semesters in a manner that will facilitate the students to meet the minimum credit requirements as given in Table 2 (Section 5).**

a. Major and Minor Courses:

All discipline-specific courses (major or minor) may be 4 credits or as appropriate. An additional one to two credits may be allotted for tutorials or practicals.

b. Other Courses:

All courses under the Multi-disciplinary, Ability Enhancement (language), and Skill Enhancement categories may be of 3-credits or as appropriate;

c. Common Value-Added Courses:

Courses under Value Added, Summer Internship/ Apprenticeship/ Community outreach activities, etc., for all majors, may be of 2-credits or as appropriate;

d. Final year Research project / Dissertation etc., may be of 12 credits.

Tables 2 and 3 in the following sections provide the minimum credit requirements under each category and the distribution of course levels across 6/8 semesters.

3.3 Eligibility for the UG Programmes

Senior Secondary School Leaving Certificate or Higher Secondary (12th Grade) Certificate obtained after successful completion of Grade 12 or equivalent stage of education corresponding to Level-4.

3.4 Duration of the Programme

i. The duration of the UG programme is 4 years or 8 semesters. Students who desire to undergo a 3-year UG Programme will be allowed to exit after completion of the 3rd year. If a student wants to leave after the completion of the first or second year, the student will be given a UG Certificate or UG Diploma, respectively, provided they secure the prescribed number of credits (as given in table 3). Students who exit with a UG certificate or UG diploma are permitted to re-enter within three years and complete the degree programme.

ii. Students may be permitted to take a break from the study during the period of study but the total duration for completing the programme shall not exceed 7 years.

4.0. Outcomes-based approach to higher education

The National Higher Education Qualifications Framework (NHEQF) envisages that students must possess the quality and characteristics of the graduate of a programme of study, including learning outcomes relating to the disciplinary area(s) in the chosen field(s) of learning and

generic learning outcomes that are expected to be acquired by a graduate on completion of the programme(s) of study.

The graduate attributes include capabilities that help broaden the current knowledge base and skills, gain and apply new knowledge and skills, undertake future studies independently, perform well in a chosen career, and play a constructive role as a responsible citizen in society. Graduate attributes are fostered through meaningful learning experiences made available through the curriculum and learning experience, the total college/university experience, and a process of critical and reflective thinking.

Graduate attributes include learning outcomes that are specific to disciplinary areas relating to the chosen field(s) of learning within broad multidisciplinary/interdisciplinary/ transdisciplinary contexts and generic learning outcomes that graduates of all programmes of study should acquire and demonstrate, as given in Table 1.

Table 1: Graduate attributes

Type of learning outcomes	The Learning outcomes descriptors
Learning outcomes that are specific to disciplinary/ interdisciplinary areas of learning	Graduates should be able to demonstrate the acquisition of:
	Comprehensive knowledge and coherent understanding of the chosen disciplinary/interdisciplinary areas of study in a broad multidisciplinary context, their different learning areas, their linkages with related fields of study, and current and emerging developments associated with the chosen disciplinary/interdisciplinary areas of learning.
	Practical, professional, and procedural knowledge required for carrying out professional or highly skilled work/tasks related to the chosen field(s) of learning, including knowledge required for undertaking self-employment initiatives, and knowledge and mindset required for entrepreneurship involving enterprise creation, improved product development, or a new mode of organization.
	skills in areas related to specialization in the chosen disciplinary/interdisciplinary area(s) of learning in a broad multidisciplinary context, including wide-ranging practical skills, involving variable routine and non-routine contexts relating to the chosen field(s) of learning.
	capacity to extrapolate from what has been learned, translate concepts to real-life situations and apply acquired competencies in new/unfamiliar contexts, rather than merely replicate curriculum content knowledge, to generate solutions to specific problems.
Generic learning outcomes	***Complex problem-solving:*** The graduates should be able to demonstrate the capability to: • solve different kinds of problems in familiar and non-familiar contexts and apply the learning to real-life situations.

Type of learning outcomes	The Learning outcomes descriptors
	Critical thinking: The graduates should be able to demonstrate the capability to: • apply analytic thought to a body of knowledge, including the analysis and evaluation of policies, and practices, as well as evidence, arguments, claims, beliefs, and the reliability and relevance of evidence, • identify relevant assumptions or implications; and formulate coherent arguments, • identify logical flaws and holes in the arguments of others, • analyze and synthesize data from a variety of sources and draw valid conclusions and support them with evidence and examples.
	Creativity: The graduates should be able to demonstrate the ability to: • create, perform, or think in different and diverse ways about the same objects or scenarios, • deal with problems and situations that do not have simple solutions, • innovate and perform tasks in a better manner, • view a problem or a situation from multiple perspectives, • think 'out of the box' and generate solutions to complex problems in unfamiliar contexts, • adopt innovative, imaginative, lateral thinking, interpersonal skills and emotional intelligence.
	Communication Skills: The graduates should be able to demonstrate the skills that enable them to: • listen carefully, read texts and research papers analytically and present complex information in a clear and concise manner to different groups/audiences, • express thoughts and ideas effectively in writing and orally and communicatewith others using appropriate media, • confidently share views and express herself/himself, • construct logical arguments using correct technical language related to a field of learning, work/vocation, or an area of professional practice, and convey ideas, thoughts, and arguments using language that is respectful andsensitive to gender and other minority groups.
	Analytical reasoning/thinking: The graduates should be able to demonstrate the capability to: • evaluate the reliability and relevance of evidence; • identify logical flaws in the arguments of others; • analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples, and address opposing viewpoints.

Type of learning outcomes	The Learning outcomes descriptors
	• ***Research-related skills***: The graduates should be able to demonstrate: • a keen sense of observation, inquiry, and capability for asking relevant/ appropriate questions, • the ability to problematize, synthesize, and articulate issues and design research proposals, • the ability to define problems, formulate appropriate and relevant research questions, formulate hypotheses, test hypotheses using quantitative and qualitative data, establish hypotheses, make inferences based on the analysis and interpretation of data, and predict cause-and-effect relationships, • the capacity to develop appropriate methodology and tools for data collection, • the appropriate use of statistical and other analytical tools and techniques, • the ability to plan, execute and report the results of an experiment or investigation, the ability to acquire the understanding of basic research ethics and skills in practicing/doing ethics in the field/ in personal research work, regardless of the funding authority or field of study.
	Coordinating/collaborating with others: The graduates should be able to demonstrate the ability to: • work effectively and respectfully with diverse teams, • facilitate cooperative or coordinated effort on the part of a group, • act together as a group or a team in the interests of a common cause andwork efficiently as a member of a team.
	Leadership readiness/qualities: The graduates should be able to demonstrate the capability for: • mapping out the tasks of a team or an organization and setting direction. • formulating an inspiring vision and building a team that can help achieve thevision, motivating and inspiring team members to engage with that vision. • using management skills to guide people to the right destination.
	'Learning how to learn skills: The graduates should be able to demonstrate the ability to: • acquire new knowledge and skills, including 'learning how to learn skills, thatare necessary for pursuing learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social, and cultural objectives, and adapting to changing trades and demands of the workplace, including adapting to the changes in work processes in the context of the fourth industrial revolution, through knowledge/ skill development/reskilling, • work independently, identify appropriate resources required for further learning, • acquire organizational skills and time management to set self-defined goals and targets with timelines. • inculcate a healthy attitude to be a lifelong learner,

Type of learning outcomes	The Learning outcomes descriptors
	Digital and technological skills: The graduates should be able to demonstrate the capability to: • use ICT in a variety of learning and work situations, • access, evaluate, and use a variety of relevant information sources, and use appropriate software for analysis of data.
	Multicultural competence and inclusive spirit: The graduates should be able to demonstrate: • the acquisition of knowledge of the values and beliefs of multiple cultures anda global perspective to honour diversity, • capability to effectively engage in a multicultural group/society and interact respectfully with diverse groups, • capability to lead a diverse team to accomplish common group tasks andgoals. • gender sensitivity and adopting a gender-neutral approach, as also empathy for the less advantaged and the differently-abled including those with learning disabilities.
	Value inculcation: The graduates should be able to demonstrate the acquisition of knowledge and attitude that are required to: • embrace and practice constitutional, humanistic, ethical, and moral valuesin life, including universal human values of truth, righteous conduct, peace, love, nonviolence, scientific temper, citizenship values, • practice responsible global citizenship required for responding to contemporary global challenges, enabling learners to become aware of and understand global issues and to become active promoters of morepeaceful, tolerant, inclusive, secure, and sustainable societies, • formulate a position/argument about an ethical issue from multiple perspectives • identify ethical issues related to work, and follow ethical practices, including avoiding unethical behaviour such as fabrication, falsification or misrepresentation of data, or committing plagiarism, and adhering to intellectual property rights, • recognize environmental and sustainability issues, and participate in actions to promote sustainable development. • adopt an objective, unbiased, and truthful actions in all aspects of work, • instill integrity and identify ethical issues related to work, and follow ethical practices.

Type of learning outcomes	The Learning outcomes descriptors
	Autonomy, **responsibility, and accountability:** The graduates should be able to demonstrate the ability to: • apply knowledge, understanding, and/or skills with an appropriate degree of independence relevant to the level of the qualification, • work independently, identify appropriate resources required for a project, andmanage a project through to completion, • exercise responsibility and demonstrate accountability in applying knowledgeand/or skills in work and/or learning contexts appropriate for the level of thequalification, including ensuring safety and security at workplaces.
	Environmental awareness and action: The graduates should be able to demonstrate the acquisition of and ability to apply the knowledge, skills, attitudes, and values required to take appropriate actions for: • mitigating the effects of environmental degradation, climate change, and pollution, • effective waste management, conservation of biological diversity, management of biological resources and biodiversity, forest and wildlife conservation, and sustainable development and living.
	Community engagement and service: The graduates should be able to demonstrate the capability to participate in community-engaged services/ activities for promoting the well-being of society.
	Empathy: The graduates should be able to demonstrate the ability to identify with or understand the perspective, experiences, or points of view of another individual or group, and to identify and understand other people's emotions.

5.0. Structure of the Undergraduate Programme

The UG programme will consist of the following categories of courses and the minimum credit requirements for 3-year UG and 4-year UG (Honours) or UG (Honours with Research) programmes are given below:

Table 2: Minimum Credit Requirements to Award Degree under Each Category

S. No.	Broad Category of Course	Minimum Credit Requirement	
		3-year UG	4-Year UG
1	Major (Core)	60	80
2	Minor Stream	24	32
3	Multidisciplinary	09	09

4	Ability Enhancement Courses (AEC)	08	08
5	Skill Enhancement Courses (SEC)	09	09
6	Value Added Courses common for all UG	06 - 08	06 – 08
7	Summer Internship	02 - 04	02 – 04
8	Research Project / Dissertation	-	12
	Total	120	160

Note:* Honours students not undertaking research will do 3 courses for 12 credits in lieu of a research project / Dissertation.

5.1. Curricular components of the undergraduate programme

The curriculum consists of major stream courses, minor stream courses and courses from other disciplines, language courses, skill courses, and a set of courses on Environmental education, understanding India, Digital and technological solutions, Health & Wellness, Yoga education, and sports and fitness. At the end of the second semester, students can decide either to continue with the chosen major or request a change of major. The minor stream courses include vocational courses which will help the students to equip with job-oriented skills.

5.1.1. Disciplinary/interdisciplinary major:

The major would provide the opportunity for a student to pursue in-depth study of a particular subject or discipline. Students may be allowed to change major within the broad discipline at the end of the second semester by giving her/him sufficient time to explore interdisciplinary courses during the first year. Advanced-level disciplinary/interdisciplinary courses, a course in research methodology, and a project/dissertation will be conducted in the seventh semester. The final semester will be devoted to seminar presentation, preparation, and submission of project report/dissertation. The project work/dissertation will be on a topic in the disciplinary programme of study or an interdisciplinary topic.

5.1.2 Disciplinary/interdisciplinary minors:

Students will have the option to choose courses from disciplinary/interdisciplinary minors and skill-based courses relating to a chosen vocational education programme. Students who take a sufficient number of courses in a discipline or an interdisciplinary area of study other than the chosen major will qualify for a minor in that discipline or in the chosen interdisciplinary area of study. A student may declare the choice of the minor and vocational stream at the end of the second semester, after exploring various courses.

Vocational Education and Training: Vocational Education and Training will form an integral part of the undergraduate programme to impart skills along with theory and practical. A minimum of 12 credits will be allotted to the 'Minor' stream relating to Vocational Education and Training and these can be related to the major or minor discipline or choice of the student. These courses will be useful to find a job for those students who exit before completing the programme.

5.1.3 Courses from Other Disciplines (Multidisciplinary) (9 credits):

All UG students are required to undergo 3 introductory-level courses relating to any of the broad disciplines given below. These courses are intended to broaden the intellectual experience and form part of liberal arts and science education. Students are not allowed to choose or repeat courses already undergone at the higher secondary level (12th class) in the proposed major and minor stream under this category.

i. ***Natural and Physical Sciences:*** Students can choose basic courses from disciplines such as Natural Science, for example, Biology, Botany, Zoology, Biotechnology, Biochemistry, Chemistry, Physics, Biophysics, Astronomy and Astrophysics, Earth and Environmental Sciences, etc.

ii. ***2. Mathematics, Statistics, and Computer Applications:*** Courses under this category will facilitate the students to use and apply tools and techniques in their major and minor disciplines. The course may include training in programming software like Python among others and applications software like STATA, SPSS, Tally, etc. Basic courses under this category will be helpful for science and social science in data analysis and the application of quantitative tools.

iii. **Library, Information, and Media Sciences:** Courses from this category will help the students to understand the recent developments in information and media science (journalism, mass media, and communication)

iv. ***Commerce and Management:*** Courses include business management, accountancy, finance, financial institutions, fintech, etc.,

v. ***Humanities and Social Sciences:*** The courses relating to Social Sciences, for example, Anthropology, Communication and Media, Economics, History, Linguistics, Political Science, Psychology, Social Work, Sociology, etc. will enable students to understand the individuals and their social behaviour, society, and nation. Students be introduced to survey methodology and available large-scale databases for India. The courses under humanities include, for example, Archaeology, History, Comparative Literature, Arts & Creative expressions,

Creative Writing and Literature, language(s), Philosophy, etc., and interdisciplinary courses relating to humanities. The list of Courses that can include interdisciplinary subjects such as Cognitive Science, Environmental Science, Gender Studies, Global Environment & Health, International Relations, Political Economy and Development, Sustainable Development, Women's and Gender Studies, etc. will be useful to understand society.

5.1.4 Ability Enhancement Courses (AEC) (08 credits): Modern Indian Language (MIL) & English language focused on language and communication skills.

Students are required to achieve competency in a Modern Indian Language (MIL) and in the English language with special emphasis on language and communication skills. The courses aim at enabling the students to acquire and demonstrate the core linguistic skills, including critical reading and expository and academic writing skills, that help students articulate their arguments and present their thinking clearly and coherently and recognize the importance of language as a mediator of knowledge and identity. They would also enable students to acquaint themselves with the cultural and intellectual heritage of the chosen MIL and English language, as well as to provide a reflective understanding of the structure and complexity of the language/literature related to both the MIL and English language. The courses will also emphasize the development and enhancement of skills such as communication, and the ability to participate/conduct discussion and debate.

5.1.5 Skills Enhancement Courses (SEC):

These courses are aimed at imparting practical skills, hands-on training, soft skills, etc., to enhance the employability of students. The institution may design courses as per the students' needs and available institutional resources.

5.1.6 *Value-Added Courses (VAC) Common to All UG Students (6-8 credits)*

i. ***Understanding India:*** The course aims at enabling the students to acquire and demonstrate the knowledge and understanding of contemporary India with its historical perspective, the basic framework of the goals and policies of national development, and the constitutional obligations with special emphasis on constitutional values and fundamental rights and duties. The course would also focus on developing an understanding among student-teachers of the Indian knowledge systems, the Indian education system, and the roles and obligations of teachers to the nation in general and to the school/community/society. The course will attempt to deepen knowledge about and understanding of India's freedom struggle and of the values and ideals that it represented to develop an appreciation of the contributions made by people of all sections and regions of the country, and

help learners understand and cherish the values enshrined in the Indian Constitution and to prepare them for their roles and responsibilities as effective citizens of a democratic society.

ii. ***Environmental science/education:*** The course seeks to equip students with the ability to apply the acquired knowledge, skills, attitudes, and values required to take appropriate actions for mitigating the effects of environmental degradation, climate change, and pollution, effective waste management, conservation of biological diversity, management of biological resources, forest and wildlife conservation, and sustainable development and living. The course will also deepen the knowledge and understanding of India's environment in its totality, its interactive processes, and its effects on the future quality of people's lives.

iii. ***Digital and technological solutions***: Courses in cutting-edge areas that are fast gaining prominences, such as Artificial Intelligence (AI), 3-D machining, big data analysis, machine learning, drone technologies, and Deep learning with important applications to health, environment, and sustainable living that will be woven into undergraduate education for enhancing the employability of the youth.

iv. ***Health & Wellness, Yoga education, sports, and fitness:*** Course components relating to health and wellness seek to promote an optimal state of physical, emotional, intellectual, social, spiritual, and environmental well-being of a person. Sports and fitness activities will be organized outside the regular institutional working hours. Yoga education would focus on preparing the students physically and mentally for the integration of their physical, mental, and spiritual faculties, and equipping them with basic knowledge about one's personality, maintaining self-discipline and self-control, to learn to handle oneself well in all life situations. The focus of sports and fitness components of the courses will be on the improvement of physical fitness including the improvement of various components of physical and skills-related fitness like strength, speed, coordination, endurance, and flexibility; acquisition of sports skills including motor skills as well as basic movement skills relevant to a particular sport; improvement of tactical abilities; and improvement of mental abilities.

The HEIs may introduce other innovative value-added courses relevant to the discipline or common to all UG programmes.

5.1.7 Summer Internship /Apprenticeship (2 – 4 credits)

A key aspect of the new UG programme is induction into actual work situations**.** All students will also undergo internships / Apprenticeships in a firm, industry, or organization or Training in labs with faculty and researchers in their own or other

HEIs/research institutions during the summer term. Students will be provided with opportunities for internships with local industry, business organizations, health and allied areas, local governments (such as panchayats, municipalities), Parliament or elected representatives, media organizations, artists, crafts persons, and a wide variety of organizations so that students may actively engage with the practical side of their learning and, as a by-product, further improve their employability. Students who wish to exit after the first two semesters will undergo a 4-credit work-based learning/internship during the summer term in order to get a UG Certificate.

Community engagement and service: The curricular component of 'community engagement and service' seeks to expose students to the socio-economic issues in society so that the theoretical learnings can be supplemented by actual life experiences to generate solutions to real-life problems. This can be part of summer term activity or part of a major or minor course depending upon the major discipline.

Field-based learning/minor project: The field-based learning/minor project will attempt to provide opportunities for students to understand the different socio-economic contexts. It will aim at giving students exposure to development-related issues in rural and urban settings. It will provide opportunities for students to observe situations in rural and urban contexts, and to observe and study actual field situations regarding issues related to socioeconomic development. Students will be given opportunities to gain a first-hand understanding of the policies, regulations, organizational structures, processes, and programmes that guide the development process. They would have the opportunity to gain an understanding of the complex socio-economic problems in the community, and innovative practices required to generate solutions to the identified problems. This may be a summer term project or part of a major or minor course depending on the subject of study.

5.1.8 Research Project / Dissertation

Students choosing a 4-Year Bachelor's degree (Honours with Research) are required to take up research projects under the guidance of a faculty member. The students are expected to complete the Research Project in the eighth semester. The research outcomes of their project work may be published in peer-reviewed journals or may be presented in conferences /seminars or may be patented.

5.1.9 Other Activities:

This component will include participation in activities related to National Service Scheme (NCC), National Cadet Corps (NCC), adult education/literacy initiatives, mentoring school students, and other similar activities.

5.2. Levels of Courses:

Courses shall be coded based on the learning outcomes, level of difficulty, and academic rigor. The coding structure is as follows:

i. **0-99: *Pre-requisite courses*** required to undertake an introductory course which will be a pass or fail course with no credits. It will replace the existing informal way of offering bridge courses that are conducted in some of the colleges/ universities.

ii. **100-199: *Foundation or introductory courses*** that are intended for students to gain an understanding and basic knowledge about the subjects and help decide the subject or discipline of interest. These courses may also be prerequisites for courses in the major subject. These courses generally would focus on foundational theories, concepts, perspectives, principles, methods, and procedures of critical thinking in order to provide a broad basis for taking up more advanced courses. These courses seek to equip students with the general education needed for advanced study, expose students to the breadth of different fields of study; provide a foundation for specialized higher-level coursework; acquaint students with the breadth of (inter) disciplinary fields in the arts, humanities, social sciences, and natural sciences, and to the historical and contemporary assumptions and practices of vocational or professional fields; and to lay the foundation for higher-level coursework.

iii. **200-299: *Intermediate-level courses*** including subject-specific courses intended to meet the credit requirements for minor or major areas of learning. These courses can be part of a major and can be pre-requisite courses for advanced-level major courses.

iv. **300-399: *Higher-level courses*** which are required for majoring in a disciplinary/interdisciplinary area of study for the award of a degree.

v. **400-499: *Advanced courses*** which would include lecture courses with practicum, seminar-based course, term papers, research methodology, advanced laboratory experiments/software training, research projects, hands-on-training, internship/apprenticeship projects at the undergraduate level or First year Post-graduate theoretical and practical courses.

vi. **500-599:** Courses at first-year Master's degree level for a 2-year Master's degree programme

vii. **600-699:** Courses for second-year of 2-year Master's or 1-year Master's degree programme

viii. **700 -799 & above:** Courses limited to doctoral students.

5.3. Programme/ Curricular components

The undergraduate programme seeks to equip students with the capacities in fields across arts, humanities, languages, natural sciences, and social sciences; an ethic of social engagement; soft skills such as complex problem solving, critical thinking, creative thinking, and communication skills, along with rigorous specialization in a chosen disciplinary or interdisciplinary major and minor(s).

Semesters 1 & 2: The students will undergo courses in 4 broad disciplines (major stream, minor stream, 2 broad disciplines (multidisciplinary category) to have basic knowledge not only in major areas but also in two other disciplines broadly grouped under Natural and Physical Sciences, Mathematics, Statistics and Computer Applications, Library, Information and Media Sciences, Commerce and Management, and Social Sciences. With exposure to basic courses in four disciplines, a student can decide to continue the chosen major or change the major and minor areas of interest at the end of the second semester. Additionally, these students will also take up courses of their interest from Ability Enhancement (language), Skill Enhancement, and Value-Added categories.

Change of Major: Students can opt for a change of major within the broad discipline (Natural and Physical Sciences, Mathematical, Statistics, and Computational Sciences, Library, Information and Media Sciences, Commerce and Management, and Humanities and Social Sciences) at the end of the first year.

Additional Seats: The HEIs may create 10% additional seats over and above the sanctioned strength to accommodate the request for a change of major. Any unfilled or vacant seats may be filled with those seeking a change of Major. Preference will be given to those who have got highest CGPA with no arrears in the first year.

Semesters 3 & 4: Students will choose courses of their interest in major and minor to build a career of their interest. They also pursue courses to strengthen their language skills and other skill-augmenting courses and vocational training.

Semesters 5 & 6: Students will undergo higher level courses and related courses during the 5th and 6th semesters in order to gain in-depth knowledge in the major and also in the

related disciplines through the minor stream. Students will also gain work-related skills through courses in vocational education. The programme structure will enable the students to gain sufficient knowledge and skills to meet the industry/society requirements.

Semesters 7 & 8: During the 4th and final year, students will undertake advanced level courses in both major and minor streams to get a UG Degree (Honours). Students choose a research component with courses relating to research methodology, advanced courses in theory and applied areas, and seminar presentations. Students may be permitted to carry out a research project or dissertation in another department of the same institution or another institution provided the required facilities are available.

5.4 Structure of the UG Programme

Table 3: The Semester-wise and Broad Course Category-wise Distribution of credits of the Undergraduate Programme:

Semester	Discipline Specific Courses - Core	Minor	Inter-disciplinary courses	Ability Enhancement courses (language)	Skill Enhancement courses /Internship /Dissertation	Common Value-Added Courses	Total Credits
I	(100 level)	(100 Level)	(1 course)	1 course)	(1 course)	(1 or 2 courses)	20
II	(100 level)	(100 Level)	(1 course)	(1 course)	(1 course)	(1 or 2 courses)	20
	Students exiting the programme after securing 40 credits will be awarded UG Certificate in the relevant Discipline /Subject provided they secure 4 credits in work based vocational courses offered during summer term or internship / Apprenticeship in addition to 6 credits from skill-based courses earned during first and second semester.						40
III	(200 level)	(200 & above)	(1 course)	(1 course)	(1 course)	-	20
IV	(200 level)	(200 & above)	-	(1 course)	-		20
	Students exiting the programme after securing 80 credits will be awarded UG Diploma in the relevant Discipline /Subject provided they secure additional 4 credit in skill based vocational courses offered during first year or second year summer term.						80
V	(300 Level)	(200 & above)	-	-	(Internship)	-	20
VI	(300 Level)	(200 & above)	-	-	-	-	20
	Students who want to undertake 3-year UG programme will be awarded UG Degree in the relevant Discipline /Subject upon securing 120 credits						120
VII	(400 Level)	(300 & above)	-		-	-	20
VIII	(400 Level)	(300 & above)	-		(Research Project/ Dissertation)		20
	Students will be awarded UG Degree (Honours) with Research in the relevant						160

	Discipline /Subject provided they secure 160 credits	

Note:

i. Only the minimum total number of credits in each semester is indicated above. The HEIs may decide the number of credits for each course (e.g. Major, Minor, Multidisciplinary, etc.) to fulfill the minimum number of credit requirements.

ii. Students may be permitted to audit course(s) of their choice offered by the HEI provided they meet the pre-requisite for the course.

iii. Minor stream courses can be from the 3rd 300 or above level and 50% of the total credits from minors must be secured in the relevant subject/discipline and another 50% of the total credits from a minor can be earned from any discipline as per students' choice.

iv. Students are not allowed to take the same courses studied in the 12th class under the interdisciplinary category.

v. 40% of the credits in any category may be earned through online courses approved by the Department and Institution as per the existing UGC regulations.

vi. VIII-Semester core major may be seminar-based with students' presentations and discussions.

vii. Students may be encouraged to enroll in activities such as NSS / NCC.

6.0. Pedagogical approaches

The *Learning Outcomes-Based Approach* to curriculum planning and transaction requires that the pedagogical approaches are oriented towards enabling students to attain the defined learning outcomes relating to the courses within a programme. The outcome-based approach, particularly in the context of undergraduate studies, requires a significant shift from teacher-centric to learner-centric pedagogies, and from passive to active/participatory pedagogies. Every programme of study lends itself to the well-structured and sequenced acquisition of knowledge and skills. Practical skills, including an appreciation of the link between theory and practice, will constitute an important aspect of the teaching-learning process. Teaching methods, guided by such a framework, may include lectures supported by tutorial work; practicum and field-based learning; the use of prescribed textbooks and e-learning resources and other self-study materials; field-based learning/project, open-ended project work, some of which may be team-based; activities designed to promote the development of generic/transferable and subject-specific skills; and internship and visits to field sites, and industrial or other research facilities etc.

7.0. Learning assessment

A variety of assessment methods that are appropriate to a given disciplinary/subject area and a programme of study will be used to assess progress toward the course/programme learning outcomes. Priority will be accorded to formative assessment. Evaluation will be based on continuous assessment, in which sessional work and the terminal examination will contribute to the final grade. Sessional work will consist of class tests, mid-semester examination(s), homework assignments, etc., as determined by the faculty in charge of the courses of study. Progress towards achievement of learning outcomes will be assessed using the following: time-constrained examinations; closed-book and open-book tests; problem-based assignments; practical assignment laboratory reports; observation of practical skills; individual project reports (case-study reports); team project reports; oral presentations, including seminar presentation; viva voce interviews; computerized adaptive assessment, examination on demand, modular certifications, etc.

7.1. Letter Grades and Grade Points

The Semester Grade Point Average (SGPA) is computed from the grades as a measure of the student's performance in a given semester. The SGPA is based on the grades of the current term, while the Cumulative GPA (CGPA) is based on the grades in all courses taken after joining the programme of study.

The HEIs may also mention marks obtained in each course and a weighted average of marks based on marks obtained in all the semesters taken together for the benefit of students.

Letter Grade	Grade Point
O (outstanding)	10
A+ (Excellent)	9
A (Very good)	8
B+ (Good)	7
B (Above average)	6
C (Average)	5
P (Pass)	4
F (Fail)	0
Ab (Absent)	0

When students take audit courses, they may be given pass (P) or fail (F) grade without any credits.

7.2. Computation of SGPA and CGPA

The UGC recommends the following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

i. The SGPA is the ratio of the sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e.

SGPA (Si) = ∑(Ci x Gi) / ∑Ci
Where Ci is the number of credits of the i^{th} course and Gi is the grade point scored by the student in the i^{th} course.

Example for Computation of SGPA

Semester	Course	Credit	Letter Grade	Grade point	Credit Point (Credit x Grade)
I	Course 1	3	A	8	3 X 8 = 24
I	Course 2	4	B+	7	4 X 7 = 28
I	Course 3	3	B	6	3 X 6 = 18
I	Course 4	3	O	10	3 X 10 = 30
I	Course 5	3	C	5	3 X 5 = 15
I	Course 6	4	B	6	4 X 6 = 24
		20			139
	SGPA				139/20=**6.95**

ii. The Cumulative Grade Point Average (CGPA) is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

CGPA = ∑(Ci x Si) / ∑ Ci

where Si is the SGPA of the ith semester and Ci is the total number of credits in that semester.

Example for Computation of CGPA

Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6
Credit: 21 SGPA:6.9	Credit: 22 SGPA:7.8	Credit:25 SGPA:5.6	Credit: 26 SGPA:6.0	Credit: 26 SGPA: 6.3	Credit 25 SGPA 8.0

CGPA**= 6.73** (21 x 6.9 + 22 x 7.8 + 25 x 5.6 + 26 x 6.0 + 26 x 6.3 + 25 x 8.0)/145

The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

Transcript (Format): Based on the above recommendations on Letter grades, grade points and SGPA and CCPA, the HEIs may issue the transcript for each semester and a consolidated transcript indicating the performance in all semesters.

Note : Students who have already enrolled and are pursuing UG programme as per Choice Based Credit System (CBCS) are eligible to pursue 4-year undergraduate programme and the university concerned may provide bridge courses (including online courses) to enable them for transition to CCFUGP.

ज्ञान-विज्ञान विमुक्तये

सत्यमेव जयते

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P. K. Thakur

New Delhi,
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