CENTRAL UNIVERSITY OF PUNJAB

NCrF Implementation Booklet

A Step Towards India's Skill Revolution



2025

पंजाब केन्द्रीय विश्वविद्यालय/ਪੰਜਾਬ ਕੇਂਦਰੀ ਯੂਨੀਵਰਸਿਟੀ

Central University of Punjab

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NATIONAL CREDIT FRAMEWORK

GHUDDA, BATHINDA, PUNJAB-151401

Foreword

The National Credit Framework (NCrF) represents a transformative step towards integrating the diverse domains of education, skilling, and training in India. Rooted in the principles of the National Education Policy (NEP) 2020, the NCrF envisions a unified, flexible, and inclusive ecosystem that empowers learners to chart individualized pathways to personal and professional growth. The NCrF brings together academic learning, skill development, and experiential education within a unified framework that values all forms of learning equally. This framework provides a structured mechanism to assign, accumulate, and transfer credits across institutions and learning systems. The NCrF empowers learners to pursue education in a manner that is both relevant and future-ready.

As we move toward a more inclusive, flexible, and future-ready education system, the collaborative efforts of faculty, administrators, and students will be crucial. Together, we can make the NCrF a living framework that truly empowers every learner to thrive in an interconnected and dynamic world.

This implementation booklet is designed to serve as a comprehensive guide for stakeholders across the education and skill development landscape. It outlines credit structures, operational mechanisms, and implementation strategies that can help higher education institutions align with the national vision while addressing the specific needs of learners and faculty at the UG and PG levels including that for Apprenticeship Embedded Degree Programme (AEDP). The unique feature of this booklet lies in extending the AEDP to PG Programmes.

Successful implementation of this visionary framework calls for collaborative effort, robust digital infrastructure, and a shared commitment to learner-centric education. We are confident that this booklet will support stakeholders in translating the vision of the NCrF into meaningful, measurable action on the ground.

We extend our gratitude to all contributors who have played a role in shaping this document. With collective dedication, we look forward to the seamless execution of the NCrF and the realization of its promise – a truly integrated and equitable education system for all.

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1. Introduction

The implementation of National Education Policy 2020 (NEP-2020) has brought an evolutionary transformation in education system deeply rooted in the Indian knowledge tradition, culture and ethos aiming at transforming India into a sustainably equitable and vibrant knowledge society thereby making the nation a global knowledge superpower, i.e., *Vishwa Guru*.

Keeping in view the objectives of SDG-4 for ensuring inclusive and equitable quality education for all, NEP-2020 envisages far-reaching transformations in the Indian education system while making the education meaningful, assimilative and skill-centric through the pedagogy that is more experiential, holistic, integrated, discovery-oriented, learner-centered, discussion-based, flexible and enjoyable. Such a transformation would certainly contribute to character-building, rational thinking and compassionate care, and skill development. The NEP-2020 blurred disciplinary boundaries and promoted multidisciplinary learning for the holistic development of learners.

In the sphere of higher education, it is essential to introduce marked changes in the structure and approaches to make it more contemporary, innovative, interdisciplinary/multidisciplinary, flexible and skill-centric to attain the goal of sustainable national development. All these necessitate the universities to design their curricula in such a way that the holistic development of learners can be ensured for their respectful job engagement and decent living in society. Besides, the goal is to internationalize the Indian education system to bring back the glories of Indian traditional education, long ago, imparted at *Takshashila* and *Nalanda* by combining all the 64 *Kalas* (Arts) and 18 *Vidyas* (disciplines) which enshrined Indian knowledge and value system and formed the basis in the holistic development of individuals.

In this context, the NCrF implementation module aims at evolving a curricular framework based on the Indian knowledge system and contemporary global knowledge practices. The attempt has been made to provide multidisciplinary and a holistic education across the sciences, social sciences, law, arts and humanities, and sports to ensure the unity and integrity of all knowledge and to provide an opportunity to the upcoming generation to be prepared for a multidisciplinary world.

This NCrF implementation module has attempted to make the curriculum interdisciplinary, multidisciplinary, experiential-learning-based, application of innovative pedagogical practices including blended learning, flipped learning, introducing flexibility in the curriculum as well as adequate skill orientation for transforming India into *Atmanirbhar Bharat*.

This module has all the potential to create an ideal teaching-learning environment in the institutions of higher learning providing a wider opportunity to stakeholders for greater vertical and horizontal mobility in the curriculum and will transform the higher education institutions to an enjoyable learning ground for young, innovative and aspiring minds.

This module presents the Learning Outcome-Based Curriculum Framework (LOCF) well mapped with the National Higher Education Qualifications Framework (NHEQF). It helps integrate skill-education into higher education thereby facilitating identification of the specific skills that learners must acquire during their academic programs. Such an integrated curriculum framework generates higher education qualifications leading to a degree/diploma/certificate elaborated in NHEQF in terms of learning outcomes.

2. Objectives

The NCrF provides for creditization of all learning including academic, vocational/skills & experiential learning and assignment, and accumulation, storage, transfer & redemption of credits, subject to assessment; removes distinction between subjects and establishes academic equivalence between vocational & general education while enabling mobility within & between them, and its operationalization through the Academic Bank of Credits (ABC). Thus, NCrF is an enabling framework that lays down basic principles of creditization of learning from various dimensions such as academic, vocational, and experiential learning by integration of general education and skill/vocational education.

The NCrF implementation module has been designed to bring about structural and functional changes in the education system in the institutions of higher learning. The following are the objectives of this module:

- To ensure effective implementation of NCrF to realise the intent and objectives of NEP-2020.
- To provide high quality education opportunities integrated with effective skills.
- To create opportunity for quality higher education leading to degree/diploma/certificate powered by learning outcomes.
- To promote internationalization of education by enabling equivalence of courses and qualifications.
- To enable credit accumulation and credit transfer.
- To implement single credit framework in line with the vision of NEP-2020.

- To break rigid boundaries among disciplines and provide an opportunity for interdisciplinary and multidisciplinary approaches in learning.
- To enable multiple-entry and multiple exit pathways in higher education.
- To provide greater autonomy to learners for vertical and horizontal mobility in the learning process and to proceed ahead at their own pace.
- To promote requisite life-skills for fulfilling life and a deep sense for inclusivity and harmony.

3. Features

- **Skill Component** – Upto 50% of the total credit requirement of a PG program can be fulfilled by earning credits from the skill based courses. But in UG Programs, upto 50% courses from Major and Minor Streams should be skill based courses.
- **Notional Learning Hours –** The total notional learning hours for various programs of higher education that integrates general, skill and experiential learning components is to be 1200 hours per year for 40 credits. The learning hours includes class room learning, teaching, practical and lab work, innovation lab, class projects, assignments, tutorials, sports & games, yoga, physical activities, performing arts, music, handicraft work, social work, NCC, NSS, bagless days, examinations, class tests, quizzes, assessments, training and skilling, minor/major project work, filed visits, industrial visits, internships, apprenticeships, etc.
- **Adherence to Guidelines** – Curriculum of programs regulated by statutory bodies such as **AICTE, PCI, BCI, NCTE**, etc. shall be as per their guidelines.
- **MOOCs** may be taken upto 40% of the total credits.
- **Generic Electives/Interdisciplinary/Multidisciplinary Courses** - It is a pool of courses that are meant to provide interdisciplinary and/or multidisciplinary education to learners.

- **Ability Enhancement Courses** - It is a pool of compulsory courses in all disciplines designed based on the content that leads to knowledge enhancement/up-skilling through various areas of study such gender studies, human rights, innovation and entrepreneurship, start-ups, environment and sustainable development etc.
- **Skill Enhancement Courses** - It is a pool of courses in all disciplines specifically designed to provide hands-on training, develop competencies, and inculcate skills among the learners. It may include employability skills, soft skills, life skills etc.
- **Value Added Courses** - It is a pool of courses that are designed to inculcate value and ethics in learners' minds for their holistic development such as ethics, culture, Indian Knowledge System, Constitutional Values, Soft Skills, Sports Education etc.
- **Internship -**An internship is a professional learning experience that offers meaningful, practical work related to a learner's field of study or career interest. It is to be assessed through internship reports, its presentation and viva-voce test.
- **Apprenticeship -** Apprenticeship combines classroom education with on-the-job training. It targets to help students learn skills through real-life work experience from an expert professional or craftsman.
- **Research Project/Dissertation -**A dissertation is a long piece of academic writing based on the outcomes of original research that provides the learners with the opportunity to showcase the necessary skills and knowledge required for putting theories into practice.
- **Experiential Learning** – It includes relevant experience and professional levels acquired activities like field visits, industrial visits etc. which aims at observation and/or application of concepts learned. It is to be assessed through reports, its presentation and viva-voce test.
- **Community Outreach**: Community outreach is an activity of providing services to any population that might not otherwise have access to those services. So, it involves identifying under-served populations, understanding their deprivations and addressing their issues by use of outreach tools such as leaflets, newsletter, advertising stalls and displays, giving learning, health support, counseling, skill development workshops and other projects for their welfare. So, outreach activities not only enhance the quality of life of people and strengthen communities, but also improve learning, promote civic engagement/consciousness/responsibility and amplify the academic and personal development of learners. The period of the outreach programme shall vary from 4-6 weeks. At the end, the learners are required to submit an outreach project report to the concerned department for necessary grading and award of the degree. The universities should allot a mentor/supervisor for each

of the student undertaking community outreach project. The project report is to be evaluated based on it quality and quantity by a committee comprising mentor/supervisor and an external expert.

- **Flexibility to Earn Credits** – The students/learners can earn credits by studying MOOCs, undergoing skill/vocational courses in a formal set up (including those offered by the universities), experiential learning in an informal set up (in the form of hands-on training, job-training etc. beyond the curriculum), and experiential learning in a formal set up (in the form of field visits/industrial visits, internship, apprenticeship, work-embedded program etc. as part of the curriculum), the university will creditize (wherever applicable) subject to assessment.
- **Recognition of Prior Learning** – It allows students gain credit towards a qualification based on their previous learning experiences gained through on-the-job training, internships and apprenticeships, project-based learning, volunteer work, workshops and seminars, e-learning platforms, webinars and virtual conferences, reading and research, hobbies and personal projects, peer learning, community groups and clubs, immersive learning experiences, interaction and working with different cultures, simulations and virtual reality, educational games, mentorship/guru-shishya parampara, and validation of skills, competencies and knowledge gained from inheritance and traditions. For creditization of RPL, the maximum credit assignment for these should align with the learning outcomes of the degree program. The maximum percentage of credits that may be acquired through RPL shall be up to 30%.

4. Curriculum Structure

4.1. For Under-Graduate Programs (Upto 50% Skill based courses will be from Major and Minor Streams)

a. For 3-year UG: Students entering 3-year UG programme can choose –

(i) One Major subject and Two Minor Subjects; or

(ii) Two Major Subjects and One Minor Subject.

b. For 4-year UG: Students entering 4-year UG programme can choose –

(i) One Major subject and Two Minor Subjects; or

(ii) Two Major Subjects and One Minor Subject.

Category-I: One Major Subject & Two Minor Subjects

Disciplines	Total credits	Major Stream (Core)	Minor Stream (I & II)	Generic Electives/Inter or Multidisciplinary Courses	Skill Enhancement Courses (SEC)	Ability Enhancement Courses (AEC)	Value Added Courses (VAC)	Experiential Learning	Summer Internship	Research Projects / Dissertation
3-Year UG Program	120	**Major** 60cr	**Minor-I =** 12cr **Minor-II =** 12cr	9cr	9cr	8cr	6cr	Field Visit/Industrial Visit etc.= 2cr	2cr	NA
4-Year UG Program (Honours/ Research)	160	**Major** 80cr	**Minor-I** 4 courses x 4cr = 16cr **Minor-II** 4 courses x 4cr = 16cr	9cr	9cr	8cr	6cr	Field Visit/Industrial Visit etc.= 2cr	2cr	12cr

Note: ***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: Skill Component – Upto 50%*

Category-II: Two Major Subjects & One Minor Subject

Disciplines	Total credits	Major Stream (Core)	Minor Stream	Generic Electives/Inter or Multidi ciplinary Courses	Skill Enhancement Courses (SEC)	Ability Enhancement Courses (AEC)	Value Added Courses (VAC)	Experiential Learning	Summer Internship	Research Projects / Dissertation
3-Year UG Program	120	**Major-I** 32cr **Major-II** 28cr	**Minor** 24cr	9cr	9cr	8acr	6cr	Field Visit/ Industrial Visit etc.= 2cr	2cr	NA
4-Year UG Program (Honours/ Research)	160	**Major-I** 40cr **Major-II** 40cr	**Minor** 32cr	9cr	9cr	8cr	6cr	Field Visit/ Industrial Visit etc.= 2cr	2cr	12cr

Note: ***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: Skill Component – Upto 50%*

4.2. Apprenticeship Embedded Degree Programme (AEDP)

- Its objective is to enhance the employability of students, focus on outcome-based learning, promote active linkage between higher educational institutions and industries and bridge the skill gap in the industries.
- Any university/institution can offer an AEDP at the UG level if it meets any of the conditions: (i) a ranking in the university category of the latest NIRF; (ii) a valid grade or score from the NAAC; or (iii) a valid basic accreditation by the NAAC while complying with UGC's specified criteria.
- To Implement AEDP, it is mandatory to have a tripartite agreement between the university, industry/establishment eligible to provide apprenticeship, and the student.
- University has to collaborate with companies to facilitate apprenticeships, with stipends in line with the Apprenticeships Act, 1961, and the Apprenticeship Rules, 1992.
- University can implement the AEDP through the National Apprenticeship Training Scheme (NATS) portal, where stipends with be government-funded in the partnership with the Board of Apprenticeship Training (BOAT) or the Board of Practical Training (BOPT).
- Students in a 3-year UG programme must complete a minimum of one whole semester and upto a maximum of three full semesters of apprenticeship in firms/industries/companies/social sector, while those in a 4-year UG programme are required to complete at least two whole semesters upto a maximum of 4 full semesters.
- Admission to AEDP is same as admission to regular UG programme.
- University will decide the seat strength of AEDP, and the semester(s) devoted to apprenticeship training.
- AEDP has the provision for MEME as per NCrF.
- Learning, Assessment/Evaluation, and Creditization of apprenticeship training will be as per AEDP guidelines of UGC-2025 (24/03/2025).
- Apprenticeship training: 1 Credit = 30 hours.

Category-IA: One Major Subject & Two Minor Subjects

Disciplines	Total credits	Major Stream (Core)	Minor Stream (I&II)	Generic Electives/Inter or Multidisciplinary Courses	Skill Enhancement Courses (SEC)	Ability Enhancement Courses(AEC)	Value Added Courses (VAC)	Apprenticeship	Research Projects/ Dissertation
3-YearUG Program	120	**Major** 56cr	**Minor-I** = 9cr **Minor-II** = 9cr	6cr	6cr	8cr	6cr	20cr (**One Sem**)	NA
4-YearUG Program (Honours/ Research)	160	**Major** 64cr	**Minor-I** = 9cr **Minor-II** = 9cr	6cr	6cr	8cr	6cr	40cr (**Two Sem**)	12cr

Note:***Theory***:1Credit=15hours;***Practical***:1Credit=30hours;***Experiential Learning Including Relevant Experience and Proficiency/Professional Levels Acquired***:1Credit= 40-45hours:Skill Component– Upto 50%; Apprenticeship Training: 1Credit=30hours

Category-IB: One Major Subject & Two Minor Subjects

Disciplines	Total credits	Major Stream (Core)	Minor Stream (I&II)	Generic Electives/Inter or Multidisciplinary Courses	Skill Enhancement Courses (SEC)	Ability Enhancement Courses(AEC)	Value Added Courses (VAC)	Apprenticeship	Research Projects/ Dissertation
3-YearUG Program	120	**Major** 48cr	**Minor-I** = 9cr **Minor-II** = 9cr	6cr	2cr	4cr	2cr	40cr (**Two Sem**)	NA
4-YearUG Program (Honours/ Research)	160	**Major** 56cr	**Minor-I** = 9cr **Minor-II** = 9cr	6cr	2cr	4cr	2cr	60cr (**Three Sem**)	12cr

Note:***Theory***:1Credit=15hours;***Practical***:1Credit=30hours;***Experiential Learning Including Relevant Experience and Proficiency/Professional Levels Acquired***:1Credit= 40-45hours:Skill Component– Upto 50%; Apprenticeship Training: 1Credit=30hours

Category-IC: One Major Subject & Two Minor Subjects

Disciplines	Total credits	Major Stream (Core)	Minor Stream (I&II)	Generic Electives/Inter or Multidisciplinary Courses	Skill Enhancement Courses (SEC)	Ability Enhancement Courses(AEC)	Value Added Courses (VAC)	Apprenticeship	Research Projects/ Dissertation
3-YearUG Program	120	**Major** 28cr	**Minor-I** = 9cr **Minor-II** = 9cr	6cr	2cr	4cr	2cr	60cr (**Three Sem**)	NA
4-YearUG Program (Honours/ Research)	160	**Major** 36cr	**Minor-I** = 9cr **Minor-II** = 9cr	6cr	2cr	4cr	2cr	80cr (**Four Sem**)	12cr

Note:***Theory***:1Credit=15hours;***Practical***:1Credit=30hours;***Experiential Learning Including Relevant Experience and Proficiency/Professional Levels Acquired***:1Credit= 40-45hours:Skill Component– Upto 50%; Apprenticeship Training: 1Credit=30hours

APPRENTICESHIP EMBEDDED DEGREE PROGRAMME (AEDP)

Category-IIA: Two Major Subjects & One Minor Subject

Disciplines	Total credits	Major Stream (Core)	Minor Stream	Generic Electives/Inter or Multidisciplinary Courses	Skill Enhancement Courses (SEC)	Ability Enhancement Courses(AEC)	Value Added Courses (VAC)	Apprenticeship	Research Projects/ Dissertation
3-YearUG Program	120	**Major-I** 28cr **Major-II** =28cr	**Minor** = 18cr	6cr	6cr	8cr	6cr	20cr (**One Sem**)	NA
4-YearUG Program (Honours/ Research)	160	**Major-I** = 32cr **Major-II** =32cr	**Minor** = 8cr	6cr	6cr	8cr	6cr	40cr (**Two Sem**)	12cr

Note:***Theory***:1Credit=15hours;***Practical***:1Credit=30hours;***Experiential Learning Including Relevant Experience and Proficiency/Professional Levels Acquired***:1Credit= 40-45hours:Skill Component– Upto 50%; Apprenticeship Training: 1Credit=30hours

Category-IIB: Two Major Subjects & One Minor Subject

Disciplines	Total credits	Major Stream (Core)	Minor Stream	Generic Electives/Interor Multidisciplinary Courses	Skill Enhancement Courses (SEC)	Ability Enhancement Courses(AEC)	Value Added Courses (VAC)	Apprenticeship	Research Projects/ Dissertation
3-YearUG Program	120	**Major-I** = 24cr **Major-II** =24cr	**Minor** = 18cr	6cr	2cr	4cr	2cr	40cr (**Two Sem**)	NA
4-YearUG Program (Honours/ Research)	160	**Major-I** = 32cr **Major-II** =32cr	**Minor** = 18cr	6cr	2cr	4cr	2cr	60cr (**Three Sem**)	12cr

Note:***Theory***:*1Credit=15hours;****Practical****:1Credit=30hours;****Experiential Learning Including Relevant Experience and Proficiency/Professional Levels Acquired****:1Credit= 40-45hours:Skill Component– Upto 50%; Apprenticeship Training: 1Credit=30hours*

Category-IIC: Two Major Subjects & One Minor Subject

Disciplines	Total credits	Major Stream (Core)	Minor Stream	Generic Electives/Interor Multidisciplinary Courses	Skill Enhancement Courses (SEC)	Ability Enhancement Courses(AEC)	Value Added Courses (VAC)	Apprenticeship	Research Projects/ Dissertation
3-YearUG Program	120	**Major-I=** 20cr **Major-II**=20cr	**Minor** = 12cr	2cr	2cr	2cr	2cr	60cr (**Three Sem**)	NA
4-YearUG Program (Honours/ Research)	160	**Major-I** = 24cr **Major-II** =24cr	**Minor** = 12cr	2cr	2cr	2cr	2cr	80cr (**Four Sem**)	12cr

Note:***Theory***:*1Credit=15hours;****Practical****:1Credit=30hours;****Experiential Learning Including Relevant Experience and Proficiency/Professional Levels Acquired****:1Credit= 40-45hours:Skill Component– Upto 50%; Apprenticeship Training: 1Credit=30hours*

4.3. For Post-Graduate Programs (Skill Component is Upto 50% of total credits)

a. For 2-year PG: Students entering 2-year PG after a 3-year UG programme can choose to do –

(i) Only Coursework in all the semesters in both the years;

(ii) Coursework in first three semesters, and research in the 4th semester;

(iii) Coursework in first two semesters, and research in 3rd & 4th semester.

b. For 1-yeat PG: Students entering 1-year PG after a 4-year UG programme can choose to do –

(i) Only coursework in both the semesters,

(ii) Coursework in one semester, and research in another semester,

(iii) Only research in both the semesters.

The curriculum structure of the abovementioned PG programme should comprise lecture courses with practicum, seminar based course, ability enhancement courses, aspirational skill enhancement courses, value added courses, research methodology, advanced laboratory experiments, software training, research projects, hands-on-training, internship/apprenticeship projects.

This curriculum structure should intend to sharpen the students' analytical abilities to optimally solve problems through deep knowledge in advanced skills and real-world experience.

Category-I: 2-Year PG with Coursework in all the semesters

Type of Courses	1st Year PG		2nd Year PG	
	Semester-I	Semester-II	Semester-III	Semester-IV
Discipline Specific Core Courses (DSC)	12cr	8cr	8cr	8cr
Discipline Specific Elective Courses (DSE)	3cr	3cr	3cr	3cr
Skill Enhancement Courses (SEC)	3cr	3cr	7cr	7cr
Ability Enhancement Courses (AEC)	-	2cr	2cr	-
Interdisciplinary Courses (IDC)	2cr	-	-	-
Value Added Courses (VAC)	-	2cr	-	-
Entrepreneurship Courses (EC)	2cr	-	-	-
Industrial/Field Visits	-	-	-	2cr
Dissertation/Internship/Apprenticeship	-	-	-	-
Total Credits (80 Credits)	**22 Credits**	**18 Credits**	**20 Credits**	**20 Credits**

Note: ***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: Skill Component – 37.5%*

Category-II: 2-Year PG with Coursework in three semesters and Research in Last Semester

Type of Courses	1st Year PG		2nd Year PG	
	Semester-I	Semester-II	Semester-III	Semester-IV
Discipline Specific Core Courses (DSC)	12cr	8cr	8cr	-
Discipline Specific Elective Courses (DSE)	3cr	3cr	3cr	-
Skill Enhancement Courses (SEC)	3cr	3cr	7cr	-
Ability Enhancement Courses (AEC)	-	2cr	-	-
Interdisciplinary Courses (IDC)	2cr	-	-	-
Value Added Courses (VAC)	-	2cr	2cr	-
Entrepreneurship Courses (EC)	2cr	-	-	-
Industrial/Field Visits	-	-	-	-
Dissertation/Internship/Apprenticeship	-	-	-	20 Credits
Total Credits (80 Credits)	**22 Credits**	**18 Credits**	**20 Credits**	**20 Credits**

Note: ***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: Skill Component – 51.25%*

Category-III: 2-Year PG with Coursework in first two sem and Research in Last two Sem

Type of Courses	1st Year PG		2nd Year PG	
	Semester-I	Semester-II	Semester-III	Semester-IV
Discipline Specific Core Courses (DSC)	12cr	8cr	-	-
Discipline Specific Elective Courses (DSE)	3cr	3cr	-	-
Skill Enhancement Courses (SEC)	3cr	3cr	-	-
Ability Enhancement Courses (AEC)	-	2cr	-	-
Interdisciplinary Courses (IDC)	2cr	-	-	-
Value Added Courses (VAC)	-	2cr	-	-
Entrepreneurship Courses (EC)	2cr	-	-	-
Industrial/Field Visits	-	-	-	-
Dissertation/Internship/Apprenticeship	-	-	20 Credits	20 Credits
Total Credits (80 Credits)	**22 Credits**	**18 Credits**	**20 Credits**	**20 Credits**

Note: ***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: Skill Component – 51.25%*

Category-I: 1-Year PG with Coursework in all the semesters

Type of Courses	One Year PG	
	Semester-I	**Semester-II**
Discipline Specific Core Courses (DSC)	8cr	8cr
Discipline Specific Elective Courses (DSE)	3cr	3cr
Skill Enhancement Courses (SEC)	7cr	7cr
Ability Enhancement Courses (AEC)	2cr	-
Interdisciplinary Courses (IDC)	-	-
Value Added Courses (VAC)	-	-
Entrepreneurship Courses (EC)	-	-
Industrial/Field Visits	-	2cr
Dissertation/Internship/Apprenticeship	-	-
Total Credits (40 Credits)	**20 Credits**	**20 Credits**

Note: ***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: Skill Component – 40.0%*

Category-II: 1-Year PG with Coursework in one semester and Research in the Last Semester

Type of Courses	One Year PG	
	Semester-I	**Semester-II**
Discipline Specific Core Courses (DSC)	8cr	-
Discipline Specific Elective Courses (DSE)	3cr	-
Skill Enhancement Courses (SEC)	7cr	-
Ability Enhancement Courses (AEC)	2cr	-
Interdisciplinary Courses (IDC)	-	-
Value Added Courses (VAC)	-	-
Entrepreneurship Courses (EC)	-	-
Industrial/Field Visits	-	-
Dissertation/Internship/Apprenticeship	-	20 Credits
Total Credits (40 Credits)	**20 Credits**	**20 Credits**

Note: ***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: Skill Component – 67.5%*

Category-III: 1-Year PG with Research in all Semesters

Type of Courses	One Year PG	
	Semester-I	**Semester-II**
Discipline Specific Core Courses (DSC)	-	-
Discipline Specific Elective Courses (DSE)	-	-
Skill Enhancement Courses (SEC)	-	-
Ability Enhancement Courses (AEC)	-	-
Interdisciplinary Courses (IDC)	-	-
Value Added Courses (VAC)	-	-
Entrepreneurship Courses (EC)	-	-
Industrial/Field Visits	-	-
Dissertation/Internship/Apprenticeship	20 Credits	20 Credits
Total Credits (40 Credits)	**20 Credits**	**20 Credits**

Note: ***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: Two Courses are Advance Level Research Methodology; Skill Component – 100%*

4.4. For Five Year Integrated UG-PG Programme (Skill Component is upto 50% of total credits)

This 5-year integrated UG-PG Programme is to be pursued after completing the 12th class. This Programmes is designed by combining the UG and PG studies in STEAM (Science, Technology, Engineering, Arts and Mathematics) subjects. It has the potential to open up new vistas to the learners by offering them advanced studies in their specialization areas and encompassing all the key skills of both UG and PG levels thereby making the learners ready for better job opportunities. It is an extended degree programme designed to offer exactly the skills and competencies that the employers need. It primarily focuses on applied knowledge and practical training with close links to specific career paths. The Programme also focuses on research to enhance quality in higher education. It is a learner-centric programme that allows the learners to have a more focused approach and complete the learning of desired knowledge and skills in a shorter time. The key features of a 5-year integrated UG-PG Programme include flexibility, interdisciplinary/multidisciplinary approach, experiential learning, community engagement, internship, apprenticeship, and research. There can be five categories of curriculum development in this programme.

- **Category-1:** Five Year Integrated UG-PG Programme without AEDP
- **Category-2:** Five Year Integrated UG-PG Programme with One Semester AEDP
- **Category-3:** Five Year Integrated UG-PG Programme with Two Semester AEDP
- **Category-4:** Five Year Integrated UG-PG Programme with Three Semester AEDP
- **Category-5:** Five Year Integrated UG-PG Programme with Four Semester AEDP

Category-I: 5-Year Integrated UG-PG Programs Curriculum Structure (Without AEDP)

Semester	Discipline Specific Core (DSC) Courses	Discipline Specific Elective (DSE) Courses	Generic Electives (GE)/IDC	Ability Enhancement Courses (AEC)	Skill Enhancement Courses (SEC)	Value Added Courses (VAC)	Experiential Learning/ Industrial Visits/Field Visits	Internship/ Apprenticeship/ Dissertation/ Community Outreach Project	Total Credits
I	12cr	-	4cr	2cr	-	2cr	-	-	20
II	12cr	-	4cr	2cr	-	-	2cr	-	20
III	12cr	3cr	-	-	3cr	2cr	-	-	20
IV	12cr	3cr	-	-	3cr	-	-	Internship/ Apprenticeship = 2cr	20
V	8cr	3cr	2cr	-	3cr	-	-	Dissertation (Minor) = 4cr (part-1)	20
VI	8cr	3cr	-	-	3cr	2cr	-	Dissertation (Minor) = 4cr (part-2)	20
VII	8cr	3cr	-	2cr	3cr	-	-	Community Outreach Project = 4cr (part-1)	20
VIII	8cr	3cr	-	2cr	3cr	-	-	Community Outreach Project = 4cr (part-2)	20
IX	8cr	3cr	-	-	3cr	-	-	Dissertation (Major) = 6cr (part-1)	20
X	8cr	3cr	-	-	3cr	-	-	Dissertation (Major) = 6cr (part-2)	20
								Total Credits	**200**

Note: *Experiential Learning (Field/Industrial Visits) Including Relevant Experience and Proficiency/Professional Levels Acquired: 1 Credit = 40-45 hours; Skill Component – Upto 50%;* ***AEDP****: Apprenticeship Embedded Degree Programme;* ***IDC****: Interdisciplinary Courses.*

Category-II: 5-Year Integrated UG-PG Programs Curriculum Structure (With One Semester AEDP)

Semester	Discipline Specific Core (DSC) Courses	Discipline Specific Elective (DSE) Courses	Generic Electives (GE)/IDC	Ability Enhancement Courses (AEC)	Skill Enhancement Courses (SEC)	Value Added Courses (VAC)	Apprenticeship	Dissertation	Total Credits
I	12cr	-	4cr	2cr	-	2cr	-	-	20
II	12cr	-	4cr	2cr	-	2cr	-	-	20
III	12cr	3cr	-	-	3cr	2cr	-	-	20
IV	12cr	3cr	-	-	3cr	2cr	-	-	20
V	12cr	3cr	2cr	-	3cr	-	-	-	20
VI	-	-	-	-	-	-	20cr	-	20
VII	12cr	3cr	-	2cr	3cr	-	-	-	20
VIII	12cr	3cr	-	2cr	3cr	-	-	-	20
IX	8cr	3cr	-	-	3cr	-	-	Dissertation (Major) = 6cr (part-1)	20
X	8cr	3cr	-	-	3cr	-	-	Dissertation (Major) = 6cr (part-2)	20
								Total Credits	**200**

Note: *Experiential Learning (Field/Industrial Visits) Including Relevant Experience and Proficiency/Professional Levels Acquired: 1 Credit = 40-45 hours; Skill Component – Upto 50%;* ***AEDP****: Apprenticeship Embedded Degree Programme;* ***IDC****: Interdisciplinary Courses.*

Category-III: 5-Year Integrated UG-PG Programs Curriculum Structure (With Two Semesters AEDP)

Semester	Discipline Specific Core (DSC) Courses	Discipline Specific Elective (DSE) Courses	Generic Electives (GE)/IDC	Ability Enhancement Courses (AEC)	Skill Enhancement Courses (SEC)	Value Added Courses (VAC)	Apprenticeship	Dissertation	Total Credits
I	12cr	-	4cr	2cr	-	2cr	-	-	20
II	12cr	-	4cr	2cr	-	2cr	-	-	20
III	12cr	3cr	-	-	3cr	2cr	-	-	20
IV	12cr	3cr	-	-	3cr	2cr	-	-	20
V	-	-	-	-	-	-	20cr	-	20
VI	-	-	-	-	-	-	20cr	-	20
VII	12cr	3cr	2cr	-	3cr	-	-	-	20
VIII	12cr	3cr	-	2cr	3cr	-	-	-	20
IX	8cr	3cr	-	-	3cr	-	-	Dissertation (Major) = 6cr (part-1)	20
X	8cr	3cr	-	-	3cr	-	-	Dissertation (Major) = 6cr (part-2)	20
								Total Credits	**200**

Note: *Experiential Learning (Field/Industrial Visits) Including Relevant Experience and Proficiency/Professional Levels Acquired: 1 Credit = 40-45 hours; Skill Component – Upto 50%;* ***AEDP****: Apprenticeship Embedded Degree Programme;* ***IDC****: Interdisciplinary Courses.*

Category-IV: 5-Year Integrated UG-PG Programs Curriculum Structure (With Three Semesters AEDP)

Semester	Discipline Specific Core (DSC) Courses	Discipline Specific Elective (DSE) Courses	Generic Electives (GE)/IDC	Ability Enhancement Courses (AEC)	Skill Enhancement Courses (SEC)	Value Added Courses (VAC)	Apprenticeship	Dissertation	Total Credits
I	12cr	-	4cr	2cr	-	2cr	-	-	20
II	12cr	-	4cr	2cr	-	2cr	-	-	20
III	12cr	3cr	-	-	3cr	2cr	-	-	20
IV	12cr	3cr	-	-	3cr	2cr	-	-	20
V	-	-	-	-	-	-	20cr	-	20
VI	-	-	-	-	-	-	20cr	-	20
VII	-	-	-	-	-	-	20cr	-	20
VIII	12cr	3cr	2cr	-	3cr	-	-	-	20
IX	8cr	3cr	-	-	3cr	-	-	Dissertation (Major) = 6cr (part-1)	20
X	8cr	3cr	-	-	3cr	-	-	Dissertation (Major) = 6cr (part-2)	20
								Total Credits	**200**

Note: *Experiential Learning (Field/Industrial Visits) Including Relevant Experience and Proficiency/Professional Levels Acquired: 1 Credit = 40-45 hours; Skill Component – Upto 50%;* ***AEDP****: Apprenticeship Embedded Degree Programme;* ***IDC****: Interdisciplinary Courses.*

Category-V: 5-Year Integrated UG-PG Programs Curriculum Structure (With Four Semesters AEDP)

Semester	Discipline Specific Core (DSC) Courses	Discipline Specific Elective (DSE) Courses	Generic Electives (GE)/IDC	Ability Enhancement Courses (AEC)	Skill Enhancement Courses (SEC)	Value Added Courses (VAC)	Apprenticeship	Dissertation	Total Credits
I	12cr	-	4cr	2cr	-	2cr	-	-	20
II	12cr	-	4cr	2cr	-	2cr	-	-	20
III	12cr	3cr	-	-	3cr	2cr	-	-	20
IV	12cr	3cr	-	-	3cr	2cr	-	-	20
V	-	-	-	-	-	-	20cr	-	20
VI	-	-	-	-	-	-	20cr	-	20
VII	-	-	-	-	-	-	20cr	-	20
VIII	-	-	-	-	-	-	20cr	-	20
IX	8cr	3cr	-	-	3cr	-	-	Dissertation (Major) = 6cr (part-1)	20
X	8cr	3cr	-	-	3cr	-	-	Dissertation (Major) = 6cr (part-2)	20
								Total Credits	**200**

Note: *Experiential Learning (Field/Industrial Visits) Including Relevant Experience and Proficiency/Professional Levels Acquired: 1 Credit = 40-45 hours; Skill Component – Upto 50%;* ***AEDP****: Apprenticeship Embedded Degree Programme;* ***IDC****: Interdisciplinary Courses.*

Examples of Skill Enhancement Courses (Employable Skills, Life Skills & Soft Skills) – *Start-up Pedagogy, AI & Financial Markets, Data Analysis for Historians, Negotiation and Diplomacy Skills, AI & Literary Analysis, Cyber-crime Administration, psychotherapy techniques & practices, Data analytics & business intelligence etc*

Examples of Ability Enhancement Courses – Language Courses, Environmental Science (Theory into Practice), Interview Preparation, Managerial Skill, Basic Computer Literary, Financial Literacy, Self-Development and Life Readiness, Digital Technology in Education, ICT Skills for Leadership, Tools for e-office management, digital ecosystem & freelancing, basics of web technology, Introduction to Yoga etc.

Examples of Value Added Courses – Creative Writing, Communication Skills, Indian Knowledge System, Design Thinking, Ethical, Cultural and Constitutional Values, Personality Development, Health & Wellness, Environmental Education, Gender Education, Cyber Security, Human Values & Professional Ethics, community development, stress management, Vedic mathematics, Indian science and technology, understanding India, disability and inclusive education etc.

Research by Dissertation/Internship/Apprenticeship – The curriculum integrates research component for creation of new knowledge and its application in real-world problem solving. This research can be conducted in terms of dissertation, internship or apprenticeship.

Dissertation: It is a piece of academic writing of the outcomes of research providing learners with the opportunity to showcase the necessary skills and knowledge required for putting theories into practice. Dissertation aims to equip learners with independent research skills, enabling them to identify problems, conduct research, analyse data, and communicate findings effectively. Its process includes research proposal writing, conducting research, and preparing the final report. Learners are expected to work on their research topics, research problems and hypotheses, literature survey and the research design. Learners are also expected to use appropriate research methods for data analyses and interpretation.

On completion of the research, learner will prepare final report and get it endorsed by supervisor/co-supervisor, and submit the same for evaluation. Dissertation evaluation typically assesses the clarity, coherence, and depth of the research, focusing on the problem statement, literature review, methodology, results, discussion, and conclusion, along with the overall scholarly character and contribution to the field. The parent university will examine/evaluate the student's performance based on efforts put forward for generating original research output. Specifically, the assessment should be based on innovativeness of research, student's presentation and viva-voce by a committee comprising internal and external examiners.

Research Internship: It aims at providing hands-on training to work on research tools, techniques, methodologies, equipment, policy framework and various other aspects in pursuing quality research. Research internship experience can be gained by working with faculty/scientists/mentors in universities, research institutions, universities, industrial research labs, nationally and internationally reputed organizations farmers, entrepreneurs, using local experts through recognition of prior learning models and individual persons distinguished in specific fields. On completion of research internship, intern will prepare internship report and get it endorsed by mentor/remote-mentor, and submit the same for evaluation. The parent university will examine/evaluate the student's performance based on efforts put forward for generating original research output. Specifically, the assessment should be based on innovativeness of research, student's presentation and viva-voce by a committee comprising internal and external examiners.

Regarding **duration and slots for research internship in curriculum**, following model can be adopted:

Pattern	Semester Covered	Course Description/Credits	Learning Outcomes
One Semester Research Internship	4th Semester	**Total = 20 Credit** (i) Student has to learn internship Research Methodology/methods, Tools & Techniques, and Policy Framework for 8 Credits to be evaluated jointly by university mentor/remote-mentor and internship mentor. (ii) Research Internship and its Report in the form of dissertation for 12 credits to be evaluated through student's presentation and viva-voce by a committee comprising internal and external examiners.	• Ideation and conceptualization of a research question or problem. • Learning about new tools and handling of equipment. • Experimentation and collection of data. • Simulations and development of models. • Ability to develop solutions for real-life problems. • Preparation and presentation of reports. • Awareness of research ethics, professional accountability etc. • Possess an attitude and skill of adaptability and flexibility for new challenges with a mind-set of teamwork and collaborations.
One year or two semester Research Internship	3rd and 4th Semesters	**Total = 20 Credit in 3rd Semester** (i) Student has to learn internship Research Methodology/methods, Tools & Techniques, and Policy Framework for 8 Credits to be evaluated jointly by university mentor/remote-mentor and internship mentor (ii) Research Internship and ad-hoc Report preparation for 12 credits to be evaluated through student's presentation and viva-voce by a committee comprising internal and external examiners **Total = 20 Credit in 4th Semester** (i) Research Internship and Final Report preparation in the form of dissertation for 12 credits to be evaluated through student's presentation and viva-voce by a committee comprising internal and external examiners. (ii) Application of output of Research Internship for real-world problem solving and policy making visible in the form for a separate report for 8 credits to be evaluated through student's presentation and viva-voce by a committee comprising internal and external examiners.	

Note: *Research Internship supervisor will be from the parent university, and mentor will be from the Internship Providing Organization (IPO). The role of supervisor is to approve the viability of the research internship of the student, and finally completing the assessment. The role of mentor is to provide time-to-time guidance to the candidate to have exposure to the research environment and employability market*.

Research Apprenticeship: Apprenticeship is a particular way of enabling students to learn by doing. A Research Apprenticeship is a learning experience where a student works with a scientist/researcher/faculty project in a professional setting to learn about science. For this purpose, the university has to identify universities, Research Labs/Institutions, commercial or non-commercial organizations or enterprises, or offices, or industry, or industry associations, or sector skill councils where the Research Apprenticeship can be imparted. This Apprenticeship can be imparted in the same university under the faculty extra-mural projects. At the end of the Apprenticeship, the apprentice should submit a report in the form of a dissertation for assessment or evaluation by a committee comprising both internal and external experts. This assessment/evaluation should focus on acquisition of skills required for real-life problem identification in a professional set-up, originality and innovativeness in new knowledge created as a solution to the problem, and significance of research outcomes for wider application/policy making.

Regarding **duration and slots for research apprenticeship in curriculum**, following model can be adopted:

Pattern	**Semester Covered**	**Course Description/Credits**	**Learning Outcomes**
One Semester Research Apprenticeship	4th Semester	**Total = 20 Credit** (i) Student has to learn Apprenticeship Research Methodology/methods, Tools & Techniques, and Policy Framework for 8 Credits to be evaluated jointly by university mentor/remote-mentor and internship mentor. (ii) Research Apprenticeship and its Report in the form of dissertation for 12 credits to be evaluated through student's presentation and viva-voce by a committee comprising internal and external examiners	• Achieving outcomes expressed in terms of knowledge, understanding skills, attitudes and values. • Achieving academic/research standards required for creation of new knowledge. • Learning about new tools and handling of equipment. • Simulations and development of models. • Ability to develop solutions for real-life problems.
One year or two semester Research Apprenticeship	3rd and 4th Semesters	**Total = 20 Credit in 3rd Semester** (i) Student has to learn Apprenticeship Research Methodology/methods, Tools & Techniques, and Policy Framework for 8 Credits to be evaluated jointly by university mentor/remote-mentor and internship mentor.	

		(ii) Research Apprenticeship and ad-hoc Report preparation for 12 credits to be evaluated through student's presentation and viva-voce by a committee comprising internal and external examiners **Total = 20 Credit in 4th Semester** (i) Research Apprenticeship and Final Report preparation in the form of dissertation for 12 credits to be evaluated through student's presentation and viva-voce by a committee comprising internal and external examiners (ii) Application of output of Research Apprenticeship for real-world problem solving and policy making visible in the form for a separate report for 8 credits to be evaluated through student's presentation and viva-voce by a committee comprising internal and external examiners	• Acquisition of knowledge and abilities that prepare for potential employment. • Demonstrate workforce professional abilities within the required domain of the chosen subject. • Preparation and presentation of reports.

Note: *Research Apprenticeship supervisor will be from the parent university and mentor will be from the Apprenticeship Providing Organization (APO). The role of supervisor is to approve the viability of the research apprenticeship of the student, and finally completing the assessment. The role of mentor is to provide time-to-time guidance to the candidate to have exposure to the research environment and employability market*.

5. Teaching-Learning and Evaluation

5.1 Learning Outcomes – The learning outcomes are in line with the qualifications acquired in a specific level of higher education leading to a certificate/diploma/degree. These learning outcomes include complex problem-solving, critical thinking, creativity, communication skills, analytical reasoning/thinking, research related skills, coordinating/collaborative skills, leadership readiness/qualities, digital literacy and skills, multicultural competence, value inculcation, autonomy, responsibility and accountability, environmental awareness and action, empathy, and employability, job-ready skills, and entrepreneurship skills.

Levels of Higher Education (NCrF& NHEQF)	Learning Outcomes for Acquiring Required Qualification for a Certificate/Diploma/Degree
Level 4.5 **Undergraduate Certificate**	• Knowledge of facts, concepts and processes in broad multidisciplinary contexts • Acquisition of Procedural Knowledge. • Acquisition of cognitive and technical skills. • Application of operational and theoretical knowledge. • Ability to present information in clear and concise manner. • Meeting one's own learning needs. • Ability to self-directed and self-managed learning. • Ability to make judgement and decisions. • Practice of constitutional, humanistic, ethical and moral values. • Acquisition of employable, job-ready and entrepreneurial skills.
Level 5 **Undergraduate Diploma**	• Knowledge and understanding of multidisciplinary context. • Acquisition of cognitive and technical skills. • Cognitive and practical skills to gather data. • Ability for unambiguous and concise presentation of complex information. • Meeting one's own learning needs. • Pursuing self-paced and self-directed learning. • Embracing the constitutional, humanistic, ethical and moral values. • Acquisition of employable, job-ready and entrepreneurial skills.
Level 5.5 **Bachelor's Degree**	• Acquisition of knowledge and understanding in multidisciplinary context. • Acquisition of cognitive and technical skills. • Acquisition of knowledge and skills for solution of problems. • Presentation of complex information in clear and concise manner. • Presentation of coherent arguments to support findings. • Pursuing self-paced and self-directed learning. • Critical evaluation of evidence to generate solutions. • Embrace constitutional, humanistic, ethical, and moral values. • Acquisition of employable, job-ready and entrepreneurial skills.

Level 6 **Bachelor's Degree (Honours/Research) /** **PG Diploma (after 1st year of PG)**	• Acquisition of knowledge and understanding in multidisciplinary context. • Acquisition of cognitive and technical skills for accomplishing complex tasks. • Application of knowledge and skills for identifying problems and issues. • Ability for unambiguous and concise presentation of complex information. • Meeting one's own learning needs. • Pursuing self-paced and self-directed learning. • Demonstrate keen sense of observation. • Ability to problematize, synthesize and articulate issues. • Ability to define problems, formulate research questions, hypotheses building and testing. • Ability to plan, execute and report the results of an experiment. • Ability to acquire the understanding of basic research ethics and skills. • Embracing constitutional, humanistic, ethical, and moral values. • Acquisition of employable, job-ready and entrepreneurial skills.
Level 6.5 **Master's Degree**	• Acquisition of advanced knowledge and understanding about a specialized field of enquiry. • Acquisition of advanced cognitive and technical skills for performing and accomplishing complex tasks. • Demonstrating the ability to identify and analyse real life problems. • Presentation of complex information in clear and concise manner. • Ability to evaluate the reliability and relevance of evidences. • Pursuing self-paced and self-directed learning. • Ability to problematize, synthesize and articulate issues. • Ability to plan, execute and report the results of an investigation. • Ability to follow basic research ethics and skills. • Embracing constitutional, humanistic, ethical, and moral values. • Acquisition of employable, job-ready and entrepreneurial skills.

5.2 Innovative Pedagogies– Flipped classroom pedagogy, art integrated learning pedagogy, project-based learning pedagogy, cutting-edge pedagogy, critical pedagogy, cooperative learning strategies, brainstorming, group discussions, role-plays, guided questioning, case-studies, problem-based learning, solution-based learning, fieldwork and outdoor learning, blended mode of teaching, online modes of teaching, AI-integrated pedagogy, and game-based teaching.

- **Flipped classroom pedagogy:** It is based on the blended form of learning with an emphasis on the skills such as Creating, Evaluating and Analysing in the form of activity-based learning in the classroom wherein the interaction between student and teacher takes place in a flexible learning environment and culture.
- **Art Integrated Learning Pedagogy:** The students actively participate in the process of learning wherein they explore, develop and express their understanding and creative output using various arts forms and make connections across curricula.
- **Project-based Learning Pedagogy:** It is pedagogy of reflective practice and collaboration wherein students connect the concepts with real-life situations.
- **Cutting Edge Pedagogy:** It is pedagogy of learning with innovation and problem solving skills, wherein students are engaged using Technology.
- **Critical Pedagogical Approach:** This approach emphasizes enhancing the learners' critical thinking skills by raising questions such as what they are learning and why they are learning, problem posing, and letting the students discover the answers.
- **Cooperative Learning Strategies:** These strategies include methods such as Jigsaw, Think-Pair-Share, Team-Pair-Solo, Inside-Outside Circle, Fishbowl, Project Quality Plan (P-Q-P), etc.
- **Start-Up Pedagogy**: It is a teaching method that encourages learners to use a creative and entrepreneurial mindset. It allows learners think globally, outside the possibilities presented and beyond the scope of the task which would encourage them to take responsible risks as they venture into areas of knowledge and skill, unknown and unfamiliar to them.
- **Brainstorming:** Using chalkboard or a presentation device to invite ideas of learners on a problem/issue without allowing them to criticise, but encouraging wild ideas which should follow short-listing and critically analysing ideas generated.

- **Group discussions:** The use of discussions is an attempt to counteract the risk of the teacher/educator taking a transmissive or authoritarian approach, enabling the learner group to explore their own and others' views. Group discussions encourage active listening, self-reflection, and the exchange of different cultural narratives, worldviews and attitudes.
- **Role-plays:** This technique provides an opportunity for participants to take on different identities (roles) and act these out with or for others in a scenario depicting some sustainability issues or event.
- **Guided Questioning:** Using probing and structured questions, for example, during fieldwork or on an interpretive walk, to direct learners' thinking about particular aspects of their experience.
- **Case studies:** These provide learners with in-depth information about a particular issue in one specific context.
- **Problem-based learning:** Problem-based learning is an iterative learning process wherein students are assigned a problem, identify what they need to know to solve, and finally learn and apply to solve the problem.
- **Solution-based learning:** This approach involves an idea that one wants to bring to life and action wherein real-life problems are assigned to the students and they identify solutions with active participation in communities and institutions.
- **Fieldwork and outdoor learning:** Fieldwork is an example of experiential pedagogy that can influence students' emotions and help develop the essential critical thinking skills to understand the complexity of an issue. Fieldwork and outdoor learning are often based on issues in the local community and environments, linking theory to real-world examples.
- **Game-Based Teaching:** Teachers start teaching using video conferencing tools, including gaming sessions and may chat through the chat option with students asking questions.

5.3 Assessment Tools – The credits to the students/learners shall be awarded subject to assessment. Assessment techniques/methods include diagnostic assessment, formative assessment, summative assessment, ipsative assessment, norm-referenced assessment, criterion referenced assessment, peer-to-peer randomized assessment, assessment through industry validation of effectiveness of training, self-assessment, and open-book assessment.

- **Diagnostic assessments**: Diagnostic assessments are intended to help teachers identify what students know and can do in different domains to support their students' learning.
- **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.
- **Summative assessments**: Summative assessment is an assessment administered at the end of an instructional unit in a course to evaluate student learning by comparing performance to a standard or benchmark.
- **Ipsative assessments**: Ipsative assessment is an internal or self-referenced assessment that involves comparisons between past and current work to identify a learner's growth over time.
- **Norm-referenced assessments**: Norm-referenced tests report whether test takers performed better or worse than a hypothetical average student.
- **Criterion-referenced assessments**: Criterion-Reference tests measure the performance of test takers against the criteria covered in the curriculum.
- **Peer-to-Peer randomised Assessments**: Peers will be able to provide assessment in this case.
- **Industry Validation of Effectiveness**: In the skill component, Industry validation of effectiveness of skill-training is particularly important.
- **Self-assessments**: To evaluate how much the learner has grasped by self-learning.
- **Rubrics**: For assessing qualitative student work such as projects, reports, or Presentations and viva-voce test.
- **Open Book Assessment**: It aims at assessing the higher order thinking skills of the learners which empowers them to synthesize, organize, and analyze problem. It is designed in such a way that allows students to refer to textbooks, class notes, or any other approved material while answering questions that assess the critical application of concepts and theories learned.
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6. Multiple Entry and Exit

6.1. For PG Programs

(i) The students/learners having pursuing 3-year UG degree, if opt to exit after completion of the 1st year of 2-year PG Program, shall be awarded **Post-Graduate Diploma** in the concerned field of study/discipline after acquiring the requisite credits subject to assessment. Besides, the student will be required to undertake an exit module of 4 credits that is awarded subject to assessment. In this case, the total credits acquired in the 1st year of the PG program will be augmented by 4 credits.

(ii) The students/learners having 4-year UG degree (honours/research) will join the PG program in its 2nd year, and if successfully completes the 2nd year of the study, shall be awarded M.A./M.Com/M.Sc/etc in the concerned field of study/discipline after acquiring the requisite credits subject to assessment.

(iii) The students/learners having Post-Graduate Diploma in the concerned field of study/discipline acquired after successfully completing the 1st year of 2-year PG Program, can join the 2nd year of the study, and M.A./M.Com/M.Sc/etc degree shall be awarded subject to assessment.

(iv) For entry/admission at the beginning of the 3rd semester of 2-year of PG program in a field of study/discipline shall be called lateral entry. For such entry, students/learners having successfully passed 1-year Post-Graduate Diploma in the relevant/allied fields of study recognized by Indian/Foreign Universities/Institutions etc. shall be eligible. This entry/admission decision shall be based on the earned credits (40 credits in PG Diploma) and proficiency test records.

6.2. For UG Programs

(i) The students/learners of 3/4-year UG program, if opts to exit after the successful completion of 1st year with 40 credits, will require to undertake an exit module of 4 credits that is awarded subject to assessment. In this case, the students/learners will be awarded **Undergraduate Certificate**.

(ii) The students/learners of 3/4-year UG program, if opts to exit after the successful completion of 2nd year with 80 credits, will require to undertake an exit module of 4 credits that is awarded subject to assessment. In this case, the students/learners will be awarded **Undergraduate Diploma**.

(iii) The students/learners of 3-year UG program, after successful completion of 3rdyear with 120 credits, will be awarded **3-year Bachelor's Degree**.

(iv) The students/learners of 4-year UG program, if opts to exit after the successful completion of 3rd year with 120 credits, will be awarded **3-year Bachelor's Degree**.

(v) The students/learners of 4-year UG program, after successful completion of 4thyear with 160 credits, will be awarded **4-year Bachelor's Degree (Honours/Research)**.

(vi) For entry/admission at the beginning of the 3rd semester of 3/4-year of UG program in a field of study/discipline shall be called lateral entry. For such entry, students/learners having successfully passed 1-year Undergraduate Certificate in the relevant/allied fields of study recognized by Indian/Foreign Universities/Institutions etc. shall be eligible. This entry/admission decision shall be based on the earned credits (40 credits in UG Certificate) and proficiency test records.

(vii) For entry/admission at the beginning of the 5thsemester of 3/4-year of UG program in a field of study/discipline shall be called lateral entry. For such entry, students/learners having successfully passed 2-year Undergraduate Diploma in the relevant/allied fields of study recognized by Indian/Foreign Universities/Institutions etc. shall be eligible. This entry/admission decision shall be based on the earned credits (80 credits in UG Diploma) and proficiency test records.

(viii) For entry/admission at the beginning of the 7th semester of 3/4-year of UG program in a field of study/discipline shall be called lateral entry. For such entry, students/learners having successfully passed 3-year Bachelor's Degree in the relevant/allied fields of study recognized by Indian/Foreign Universities/Institutions etc. shall be eligible. This entry/admission decision shall be based on the earned credits (120 credits in Bachelor's Degree) and proficiency test records.

(ix) Expert Committee Recommendation for Multiple-Entry in UG/PG Programs –An expert committee formed at the University level will examine the equivalency of the credits earned by the students/learners based on the learning outcomes, and the committee will also recommend for the number of credits to be considered at the multiple entry levels.

7. Level and Qualifications Mapping

7.1. For UG Programs:

Entry Level	Description	Attainment Level	Degree/Diploma/Certificate on Exit	Learning Outcomes
Level 4	**Entry Level to 1st year of the 3/4-year UG Program:** Completed/Pass 12th grade (80 credits)	**Level 4.5**	**Undergraduate Certificate** – on successful completion of 2-semester or 1-year of the 3/4-year UG program with 40 credits.	The operational/technical/procedural and theoretical knowledge along with a range of skills including communication skills to generate solutions to specific problems in a field of learning required to perform skilled or paraprofessional tasks.
Level 4.5	**Entry Level to 2nd year of the 3/4-year UG Program:** Completed Undergraduate Certificate after 12th grade (40 credits)	**Level 5**	**Undergraduate Diploma** – on successful completion of 4-semester or 2-year of the 3/4-year UG program with 80 credits.	The deeper theoretical, technical and procedural knowledge and understanding along with a range of skills including communication skills in a multidisciplinary context in a field of leaning required to perform skilled or paraprofessional tasks.
Level 5	**Entry Level to 3rd year of the 3/4-year UG Program:** Completed Undergraduate Diploma 12th grade after (80 credits)	**Level 5.5**	**3-Year Bachelor's Degree -** on successful completion of 6-semester or 3-year of the 3/4-year UG program with 120 credits.	The comprehensive, factual, theoretical, and specialised and procedural knowledge along with a range of skills including communication skills in a multidisciplinary context in a field of leaning required to perform professional tasks.
Level 5.5	**Entry Level to 4th year of the 4-year UG Program:** Completed 3-Year Bachelor's Degree(120 credits)	**Level 6**	**Bachelor's Degree (Honours/Research)** - on successful completion of 8-semester or 4-year of the 4-year UG program with 160 credits.	The advanced and in-depth knowledge about a specialized field of enquiry, a coherent understanding of the methods of research, and a thorough knowledge of the emerging developments along with a range of skills including communication skills to generate solutions to specific problems in a field of learning required to perform professional tasks.

7.2. For PG Programs:

Entry Level	Description	Attainment Level	Degree/Diploma/Certificate on Exit	Learning Outcomes
Level 5.5	**Entry Level to 1st year of the 2-year PG Program:** Completed 3-year UG Program (6-semester and 120 credits)	**Level 6**	(i) 4-year **Bachelor's Degree** (Honours/Research) - on successful completion of 8-semester or 4-year with 160 credits. (ii) **Post-Graduate Diploma** – on successful completion of 2-semester or 1-year of the 2-year PG program with 40 credits.	The advanced knowledge about a specialized field of enquiry, about the principles and methods of research, and a thorough knowledge of the emerging developments along with a range of skills including communication skills to generate solutions to specific problems in a field of learning required to perform professional tasks.
Level 6	**Entry Level to 2nd year of the 2-year PG Program:** (i) Completed 4-year UG Program (Honours/Research for 8-semester and 160 credits) (ii) Completed PG Diploma after 3-year UG Program (2-semester and 40 credits) (iii) Completed 1st year of the PG program after 3-year UG Program (2-semester and 40 credits)	**Level 6.5**	**Master's Degree** – on successful completion of 2 years or 4-semesters after 3-year UG with 80 credits / 1-year or 2-semesters after 4-year UG (Honours/Research) with 40 credits / 1-year or 2-semester after PG Diploma with 40 credits.	The advanced knowledge about a specialized field of enquiry, about the principles and methods of research, and a critical understanding of the emerging developments along with a range of advanced skills including communication skills to generate solutions to specific problems in a field of learning required to perform professional tasks related to teaching, research and development.

8. Credit Accumulation, Storage, Transfer and Redemption

- **Credit Accumulation –** The credits will be earned by each student/learner after going through the course qualification or program subject to assessment. The credits would be given for every kind of learning (academic, vocational and experiential) which is for each subject or qualifications. These credits can be accumulated in Indian Academic Bank of Credits (ABC).
- **Credit Storage** – Credits accumulated by an individual shall be stored through ABC which will 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 life-long learning.
- **Credit Transfer** – It is 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 as per NHEQF. The transfer of credits is 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 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.

  The transfer of credits facilitates (i) establishing equivalence between General education and Vocational Education and Training/Skilling, without further certification of equivalence; (ii) defining the Entry criteria for various qualifications; (iii) define and establish Multiple entry and exit possibilities; (iv) enhance International mobility; and other benefits like establishing minimum requirements for a job/employment or projects, if applicable.

  Lateral entry and credit transfer between/among the higher education institutions/universities for a student/learner who has completed the required NHEQF courses for a particular NCrF level can be done based on the fulfilment of the eligibility criteria to enter the next higher level as well as having the pre-requisites of the courses of the lateral entry level.
- **Credit Redemption**–The ABC is the 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. The validity of the credits should be in-sync with all the other regulatory policy and initiatives of the Government or till redeemed. Once redeemed the student shall not be able to use the same credits again for similar purpose.

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/universities.

However, the validity of credits earned and kept in the ABC 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 program of study will be based on the validation of prior learning outcomes. Lateral entry into the program 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.

9. Concluding Note

This NCrF implementation module is an attempt to implement the NEP-2020 in true letter and spirit by integrating its major recommendations namely provision of interdisciplinary, multidisciplinary and holistic education; ensuring equity and inclusion; setting the stage for the emergence of motivated, energized and skilled individuals; technology integrated innovative pedagogy and assessment system; promotion of Indian knowledge systems; languages, culture and values; research and innovation, multiple entry and exit options etc. making the whole educational system more learner-centric.

The Central University of Punjab is hopeful that it will add feathers to the Indian higher education system by providing the learners with a dynamic, innovative, creative, flexible and multidisciplinary learning atmosphere that will augment their creative potential and will make them self-reliant resulting in the formation of *Atmanirbhar Bharat* and attainment of the mission *Viksit Bharat@2047*. The university urges that the teaching fraternity as well as the student community should come forward in availing the benefits of such an innovative and flexible curriculum framework to enrich their skills for leading a bright career and decent living. The university also urges that the employers at the regional, national and global levels reorient their training modules and work structure to accommodate the knowledge-rich and skill-full workforce graduated with such an innovative multidisciplinary perspective. The Central University of Punjab would like to act as a resource institution in the true implementation of NCrF in HEIs of the country.

2025

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NCrF Implementation Booklet

This implementation booklet is designed to serve as a comprehensive guide for stakeholders across the education and skill development landscape. It outlines credit structures, operational mechanisms, and implementation strategies that can help higher education institutions align with the national vision while addressing the specific needs of learners and faculty at the UG and PG levels including that for Apprenticeship Embedded Degree Programme (AEDP). The unique feature of this booklet lies in extending the AEDP to PG Programmes