TRANSFORMING DAV UNIVERSITY TO NEXT GEN INSTITUTION - STEPPING THROUGH NEP-2020

Curricular Framework and Credit System for the Four-Year Undergraduate Programme

Revisions

1. Page no. 14- Table7: List of Multi-disciplinary open elective courses
    - Inclusion of course codes
    - Inclusion of new subjects i.e. "Infectious and Non-infectious Diseases"; "Understanding the immune system"; "Hormones and Health"; "Pharmacogenomics and Personalized Medicine"; "Emotional Intelligence & Well-being"
    - Change of course "Library Information Sciences" from Multidisciplinary course repository to Skill Enhancement course repository (Table 8, page no. 18-19).
2. Page no. 15, 16 & 17
    - Updated graphics of Figure 2, Figure 3 & Figure 4
3. Page no. 18 & 19 –Table 8: Common courses with Credits and Departments.
    - Inclusion of course codes and departments
    - Inclusion of new subjects "Laws Relating to Right to Information" and "Legal Drafting" in Ability Enhancement repository.
    - Shifting of course "Library Information Sciences" from Multidisciplinary course repository to Skill Enhancement course repository
    - Inclusion of new subjects "Aquarium Fish Keeping"; "Dairy Farming"; "Forensic Zoology"; "Forensic Science" and "Information Technology Law" in Skill Enhancement repository.
    - Shift of the course "Therapeutic Yoga" from Value Added course repository to Skill Enhancement course repository
    - Inclusion of new courses i.e. "Philosophy of Swami Dayanand Saraswati", "Philosophy of Mahatma Anand Swami Saraswati", "Drug Abuse: Issues, Interventions, and Rehabilitation"; "Vedic Mathematics"; "Wildlife Conservation and Management"; "Understanding Animal Behaviour"; "Legal Aid – Justice & Law" and "Environmental Law" in Value Added course repository.
    - Decrease the credits of two courses from 3 to 2 under the repository of Value Added courses ("Environmental Studies" and "Human Values and Ethics").
4. Change in the **Note** given below **Semester I** of Table 10 (page 23)-

Note: *Department shall offer one course of 2 credits out of the course repository of Skill Enhancement Courses-Common or Value Added Courses-Common/Discipline Specific Course-Core/Discipline Specific Skill Enhancement Course-Core/Discipline Specific Value Added Course-Core/Interdisciplinary Course-Core for acquiring a total of 20 credits in semester I.

is replaced as follows:

Note: *Department shall offer one course of 2 credits out of the course repository of Skill Enhancement Courses-Common or Value Added Courses-Common/Discipline Specific Course-Core/Discipline Specific Skill Enhancement Course-Core/Discipline Specific Value Added Course-Core/Interdisciplinary Course-Core semester I.

5. Addition of Value Added Course-Common of 2 credits in semester II (Table 10; page 23)
6. Change in the **Note** given below **Semester II** of Table 10 (page 24)-

   Note: *Department shall offer one course of 5 credits either of Discipline Specific Course-Core/Interdisciplinary Course/Discipline Specific-Skill Enhancement Courses-Core for acquiring a total of 20 credits in semester II.

   is replaced as follows:

   Note: *Department shall offer one course of 5 credits either of Discipline Specific Course-Core/Interdisciplinary Course/Discipline Specific-Skill Enhancement Courses-Core in semester II.
7. Page no. 31 & 32- Full form of abbreviations used for “Assessment tools” is included.

PREFACE

National Education Policy 2020 aims to shape the students as thoughtful, good natured, creative, well rounded good individuals and citizens who can constructively contribute towards fulfilling the ever-changing needs of the nation from time to time and help in building India a progressive nation. It can be possible by developing the capabilities of students by imparting education with holistic, multidisciplinary approach and extending needed liberty among students to decide their studies. This way of extending education will definitely help in imbibing the variety of knowledge and 21st century skills among students which will address the concerns of industry-academia gaps and also strengthen the scope of startups for the growth and development of the nation.

NEP 2020 curriculum and credit framework for under graduate programmes provide for multiple entry & exit, flexible degree options, inter/multi-disciplinary choices with the aim to enhance employability skills in addition to academic knowledge.

DAV University believes in proactively addressing to the desired changes by inculcating required set of knowledge and skills among students in order to prepare the market ready workforce. In this context responding to the need of the hour i.e. to imbibe the required 21st Century skills among students, we are progressively looking for the adoption of unique platforms through which we can shape our students as per the demands of industry and to fill the academia industry gaps. In view of the NEP 2020 guidelines, we endeavored to tune our curriculum of existing/new under graduate programmes accordingly. We have framed the guidelines for the under graduate programmes of DAV University following the NEP 2020 guidelines which have been released from time to time and will positively foreseeing to inculcate any further guidelines which will be released by the statutory bodies from time to time.

Looking forward for creating budding nation builders!!

➢ National Education Policy (NEP) implementation scope

The credit and curricular framework will be currently made applicable to the following under graduate programmes (other than those regulated by AICTE, PCI, BCI, NCTE, ICAR etc.) with effect from Academic Year 2023-24 in phase I:

All UG programmes (UGC recognized) viz. B.Sc., B.Com, BBA, B.A. and all Non-AICTE UG degree programmes.

➢ Introduction

The National Education Policy (NEP) 2020 recognizes the role of higher education in order to respond to the 21st century requirements which aim to make ready good, thoughtful, well-rounded, and creative individuals. From the academic year 2023-24, four-year undergraduate course will become the mainstream for the attainment of holistic higher education through multi-disciplinary approach. NEP, 2020 provides the opportunity for individuals to study one or more specialisation in depth and also develop capabilities across a range of disciplines including sciences, social sciences, arts, humanities, languages, as well as professional, technical, and vocational subjects.
In order to get along with the needs of 21st Century and make existing education more advanced, innovative and flexible; curriculum plays an important role in achieving the object of holistic education. In this context, NEP 2020 envisages the transformation in the curriculum of the Choice Based Credit System (CBCS) for instilling innovation and flexibility.

➢ NEP principles that have a bearing on the curricular thrusts at different stages of higher education.

The NEP principles that have a direct bearing on the curricula for different levels of higher education include:

• Recognizing, identifying, and fostering the unique capabilities of each student to promote her/his holistic development;

• **Flexibility**, so that learners have the ability to choose their learning trajectories and programmes, and thereby choose their own paths in life according to their talents and interests;

• **Multi-disciplinary and a holistic education** across the sciences, social sciences, arts, humanities, and sports for a multi-disciplinary world;

• 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;

• Extensive use of technology in teaching and learning, removing language barriers, increasing access for Divyang students, and educational planning and management;

• Respect for diversity and respect for the local context in all curricula, pedagogy, and policy;

• 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.

• Rootedness and pride in India, and its rich, diverse, ancient, and modern culture, languages, knowledge systems, and traditions.

➢ Transformative Curriculum Initiatives:

A good understanding of change and clear conception of the curriculum are necessary conditions for successful implementation of new curriculum into practice which envisages to instill the 21st century skills. The idea of 21st Century learning process is the acquisition of acquisition of key domain knowledge with additional skills i.e. learning skills (critical thinking, communication, collaboration & creativity), life skills (social skills, leadership, initiative) and literacy skills (technology literacy, information literacy, media literacy).

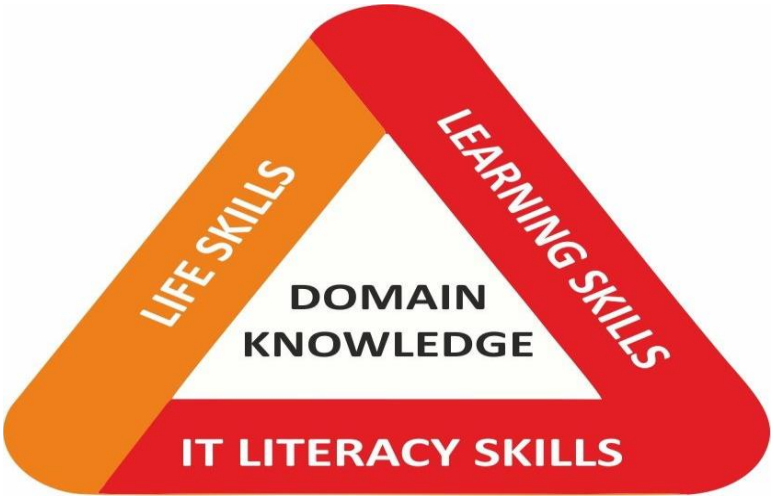

Figure1: Focus of 21st century learning

This document is prepared with the intend to attain the uniform understanding of the transformational initiates through the description of academic credit framework, engagement in academic credit hours, credit requirements, structure of under graduate programme, semester wise curricular components and types of programmes. Principal focus concerns of transformational curriculum initiatives are as follows:

1. Introduction of **holistic and multi-disciplinary** undergraduate education and rigorous specialization in a chosen field.
2. **Flexible curricular structures** to opt for creative combination among different disciplines which would enable flexibility in course options in addition to rigorous specilisation.
3. Flexibility for learners to move from one institution to another to enable them to have multi-disciplinary and/or inter-disciplinary learning.
4. Flexibility to switch to alternative modes of learning (offline, ODL, and online learning, and hybrid modes of learning).
5. **Multiple entry & exit points** and reentry options under 3 or 4 year undergraduate degree programme depending upon the number of credits earned:

    - Certificate- After one year (2 semesters)
    - Diploma- After two years (4 semesters)
    - Bachelor's degree- After three years (6 semester)

- Bachelor's degree (Hons./ Hons. with Research)-
  - After four years (8 semester) with chosen major and minors (Hons.)
  - After four years (8 semester) with rigorous research project in chosen major respectively (Hons. with research)

6. To **include community engagement and service, environmental education, and value-based education** in the curricula of credit based and project based courses in order to address the cross cutting issues of 21st century.
7. Specification of areas of **Environment Education**.
8. Specification of areas of **Value-based education**.
9. **Global Citizenship Education** and education for sustainable development to form an integral part of the curriculum.
10. **Internship opportunities with industry & business** (including craft persons, artists & related areas) and research internship opportunities.
11. **Reorientation** of teaching programmes which is required for a multi-disciplinary and stimulating learning environment.
12. Developing the students in leading areas like **Artificial Intelligence, cyber security, 3-D machining, big data analysis, and machine learning**, in addition to genomic studies, biotechnology, nanotechnology, neuroscience etc.

➢ Academic Credit Framework:

- Academic year = 2 semesters
- Working days = 90/sem.
- Summer term is for eight weeks during summer vacation. Internship/apprenticeship/work-based vocational education and training may be undertaken during this time period specially who wish to exit after two or four semesters.
- Major Discipline = 50 % of the total credits should be through major discipline core courses **for which the degree is awarded.**
- Minor Discipline = Student needs to earn minimum of 12 credits other than the major discipline.

- Weeks = 15-16/sem.
- Instructional time = 40 hrs./week

➢ Engagement in Academic Credit Hours

Table1: Delivery Mode & Academic Credit Hours

Delivery Mode	1 Credit/Week	1 Credit for 15 Weeks
Lecture/ Tutorial	1 hour engagement	15 hours engagement
Practicum or lab work/ fieldwork/ Seminar/ / Studio activity/ Field practice/ projects	2 hours engagement	30 hours engagement
Community engagement and services (external entity)	2 hours engagement	30 hours engagement
Internship (external entity)	2 hours engagement	30 hours engagement

Table2: Credit/s, Mode of Delivery and Academic Hours

		1 Cr.			2 Cr.			3 Cr			4 Cr		
		L/Tut	P	Total Academic Hours	L/Tut	P	Total Academic Hours	L/Tut	P	Total Academic Hours	L/Tut	P	Total Academic Hours
1	**Lecture**	15	0	15	30	0	30	45	0	45	60	0	60
2	**Seminar**	0	30	30	0	60	60	0	90	90	0	120	120
3	**Practicum or Laboratory work**	0	30	30	0	60	60	0	90	90	0	120	120
4	**Studio Activity**	0	30	30	0	60	60	0	90	90	0	120	120
6	**Field practice/ projects (external entity)**	0	30	30	0	60	60	0	90	90	0	120	120
7	**Community engagement & service (external entity)**	0	30	30	0	60	60	0	90	90	0	120	120
8	**Hybrid**												
8.1	**2Lecture Cr.+1Practicum Cr.**							30	30	60			
8.2	**2Lecture Cr.+2Practicum Cr.**										30	60	90
8.3	**3Lecture Cr.+1 Practicum Cr.**										45	30	75

➢ Credit Requirement

The four-year undergraduate course is divided into 8 semesters, each semester having 20-22 credits which comes up to a total of 160-164. Credit requirement as per the level of 3 or 4 year Undergraduate Programme is as follows:

Table 3: Programme & Credit Requirement

Programme Level	Credit requirements	Credit requirements if exiting
Level 5: Undergraduate Certificate (completion of 2 semesters)	40	40 + 4 (Voc. Course in summer term of first year)
Level 6: Undergraduate Diploma (completion of 4 semesters)	80	80+4 (Voc. Course in summer term of second year)
Level 7: Undergraduate Degree in Major (completion of 6 semesters)	120 adhering to the minimum credits requirements*	
Level 8: Undergraduate Degree with Hons. (Major) (completion of 8 semesters)	160 adhering to the minimum credits requirements*	
Level 8: Undergraduate Degree Hons. With Research (completion of 8 semesters) **Note: (candidates with minimum CGPA of 7.5* (75%) will be allowed to continue studies in the fourth year of the undergraduate programme leading to the bachelor's degree (Research).**	160 adhering to the minimum credits requirements* (including 12 credits from a research project/dissertation in major discipline)	
Student exiting with undergraduate certificate or diploma will be permitted to re-enter within three years & complete the degree programme. The total duration for completing a programme shall not exceed 7 years.		

Table 4: Minimum Credit Requirement for the award of UG Degree:

Course Type	Credit Requirement for 3 year UG	Credit Requirement for 4 year UG
Major (Core)	60	80
Minor	24	32
Multi-disciplinary	09	09
Ability-Enhancement Courses (AEC)	08	08
Value-added Courses common for all UG	06-08	06-08
Internship (in summer term)	02-04	02-04
Research Project/ Dissertation	-	12**
TOTAL	**120**	**160**

**** In case of 4 year Honours programme, 3 courses of 12 credits is to be completed by student instead of 12 credit research project/dissertation

Table 5: Number of Credits as per Course Type:

Course Type	Credits
Major/Minor Discipline specific	4 credits (1 or 2 credits can be allotted to tutorial or practical)
Multi-disciplinary	3 Credits
Ability-Enhancement	2 Credits
Skill-Enhancement (Common)	2-3 Credits
Common Value-added	2-3 Credits
Research Project/Dissertation	12 Credits

➢ Structure of Under Graduate Programme

For the purpose of achieving transformation in education for sustainable development, it is first important to transform the curriculum to strengthen and infuse the 21st century skills like creative thinking, problem solving, research and creativity. So, the curriculum must be holistic, transformational, encompassing learning content and outcome based so that it enhances cognitive, social, emotional and behavioral dimensions of the learner. The curriculum must include the subjects to empower the learners with knowledge, skills, values and attitudes to take informed decisions and make responsible actions for the society. In this context multi-disciplinary approach is acknowledged as the one that brings not only the development of knowledge but also skills and

life changing values. The structure of the four year under graduate programme will be based upon the following components:

1) **Major**: Student is to enroll with a specific stated major. However, student can decide to continue with the already opted major or can change the major within the broad discipline at the end of second semester, after getting the exposure of different inter-disciplinary courses during first year.

For example*:* If within broad discipline of Commerce, Business Mgt. & Economics various programmes viz; B.Com, B.Com (Hons.), BBA, B.Sc (Economics) are being offered. If a student opts for B.Com (Major with Accounting) at the time of admission; he/she can change the major at the end of first year after getting the exposure of the courses of other programmes within broad discipline i.e. can inter change from B.Com to BBA/B.Sc (Economics) and vice-versa.

2) **Minor:** It can be opted from Disciplinary/inter-disciplinary and skill-based vocational education stream. Minor is decided by the student at the end of second semester. Further, courses on vocational education and training can be related to "Major" or "Minor" or any other relevant choice of the student. The aim of these courses will be to facilitate the students to get a job who exit before the completion of programme.

In this concern, Minor degree in **Universal Human Values** is available in self learning mode on "**Swayam**".

DAV University will also furnish the Minor options/repository in the discipline of Vedic Studies and General studies in addition to the options for Minor options/ repository decided by the departments.

3) **Multi-disciplinary Courses:** The student is required to study three introductory courses relating to the broad disciplines leading to the creation of liberal arts and science education in order to widen their intellectual experience. Broad disciplines and the courses as per guidelines are given in table 6.

Table 6: Discipline & courses

Discipline	Courses
Natural and Physical Sciences	Biology, Botany, Zoology, Biotechnology, Biochemistry, Chemistry, Physics, Biophysics, Astronomy and Astrophysics, Earth and Environmental Sciences, etc.
Mathematics, Statistics, and Computer Applications (Use and apply the learning's in major/minor disciplines)	Training in programming software like Python & like so and applications software like STATA, SPSS, Tally, etc. These courses will be helpful for science and social science in data analysis and the application of quantitative tools.
Library, Information, and Media Sciences	These courses will help the students to be aware & get an understanding of recent developments in information & media science i.e. journalism, mass media, communication etc.
Commerce and Management	Business management, accountancy, finance, financial institutions, fintech, etc.
Humanities and Social Sciences	**Humanities:** Archaeology, History, Comparative Literature, Arts & Creative expressions, Creative Writing and Literature, language(s), Philosophy, etc. It may also include **inter-disciplinary course** like-Cognitive Science, Environmental Science, Gender Studies, Global Environment & Health, International Relations, Political Economy and Development, Sustainable Development, Women's and Gender Studies, etc. **Social Sciences:** Anthropology, Communication and Media, Economics, History, Linguistics, Political Science, Psychology, Social Work, Sociology, etc.

List of open elective multi-disciplinary courses of 3 credits each developed by DAV University is given in table 7. These courses will be offered to student, out of which the student is required to select one elective course each in 1st, 2nd & 3rd semester.

Notes:

1. **Students will not be allowed to choose or repeat a course which he/she has already undertaken at higher secondary level (12th class) in the proposed major or minor stream.**
2. **Departments are required to remove the courses of their respective departments as given in table 7 in order to create the final repository of multidisciplinary courses of their respective departments.**
3. **Minimum number of students to run a multi-disciplinary open elective course will be 20 students.**

Table7: List of Multi-disciplinary open elective courses at DAV University

Sr. No.	Course Name	Credit/s	Faculty/Department
1	Basics of Physics	3L	Physics
2	Basics of Chemistry **(CHM157)**	3L	Chemistry
3	Basics of Biology **(ZOL194)**	3L	Zoology
4	Infectious and Non-infectious Diseases	3L	Zoology
5	Understanding the immune system	3L	Zoology
6	Hormones and Health	3L	Zoology
7	Introductory Biotechnology **(BTG100)**	3L	Biotechnology
8	Introductory Microbiology **(MCR100)**	3L	Microbiology
9	Functioning of the Human Body	3L	Zoology
10	Introductory Botany	3L	Botany
11	Business Management for Beginners	3L	CBME
12	Fundamental of Mutual Funds **(MGN102M)**	3L	CBME
13	Economics for Beginners **(ECN101M)**	3L	CBME
14	Professional Communication **(ENH161)**	2L+1P	English
15	Fine Arts **(EDU199)**	1L+2P	Fine Arts & Performing Arts (Edu)
16	Jyotish: 'Eye of the Veda'	2L+1P	Vedic Studies
17	Mathematical Statistics	3L	Mathematics
18	Introductory Journalism	3L	JMC
19	Professional Photography **(MCJ151)**	3P	JMC
20	Pharmacogenomics and Personalized Medicine	3L	Pharmaceutical Sciences
21	Emotional Intelligence & Well-being **(PSY192)**	3L	Psychology

4) **Ability-Enhancement Courses:** Modern Indian Language (MIL), English and international languages with special emphasis on language and communication skills. The aim of these courses is enabling the students to frame their thinking & ideas clearly & coherently and understanding of language as a powerful means of knowledge sharing (development of the ability to participate or conduct discussions, debates etc.), work

overseas with MNCs and identity (cultural and intellectual heritage of the chosen MIL, English and international languages).

5) **Skill-Enhancement Courses:** These are the courses subjectively to be designed/ offered to the students aiming at providing practical skills, hands-on training, soft skills, etc., to enhance the employability of students.
6) **Value-Added Courses (Common to all UG students):** These courses are related to Understanding India, Environmental science/education, Digital and technological solutions, Health & Wellness, Yoga education, sports, and fitness.

This list is not exhaustive & the HEI can develop relevant value-added course/s specific to discipline or common for all UG students.

Figure2: Ability-Enhancement Courses

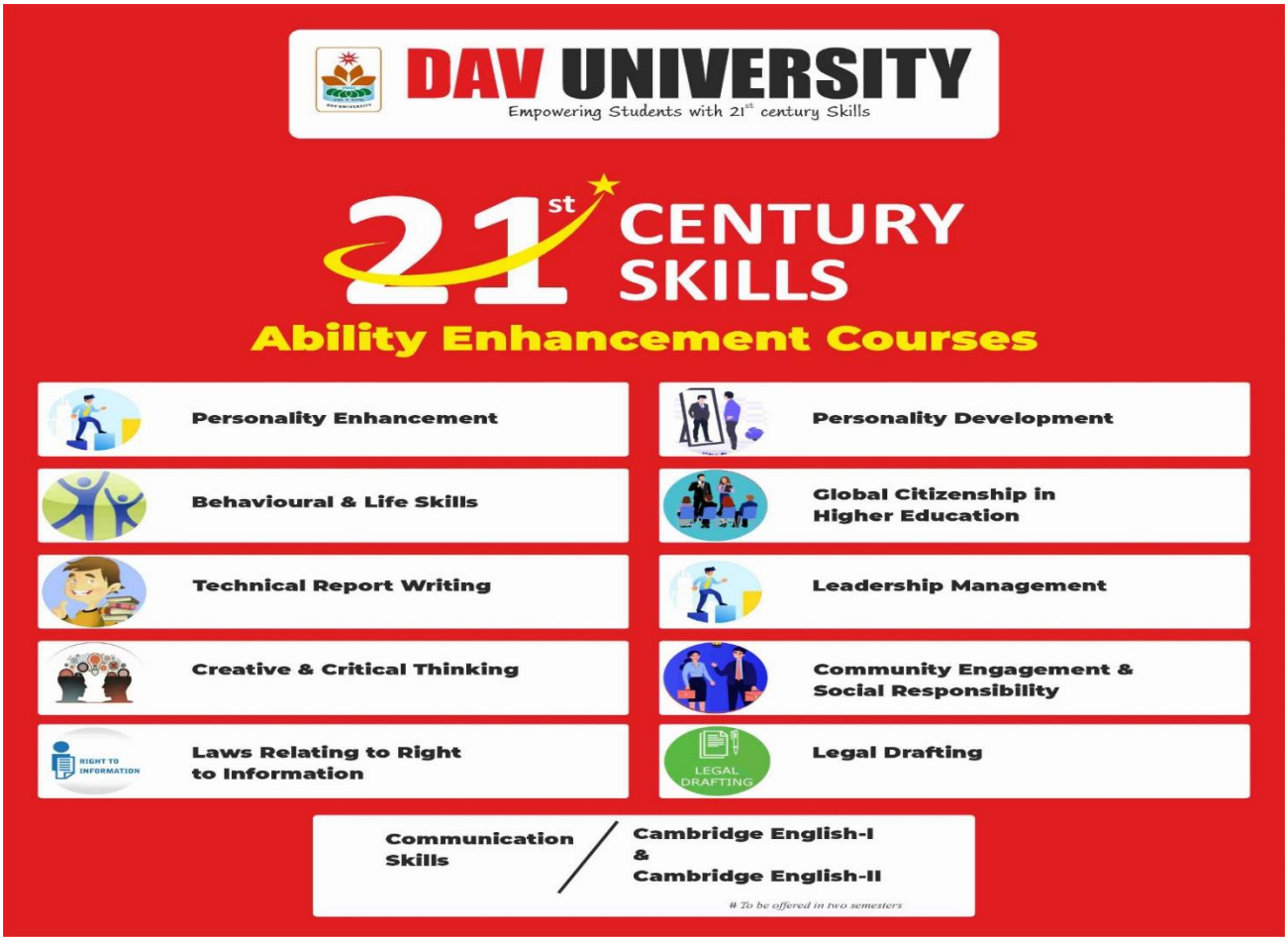

Figure3: Skill-Enhancement Courses (Common)

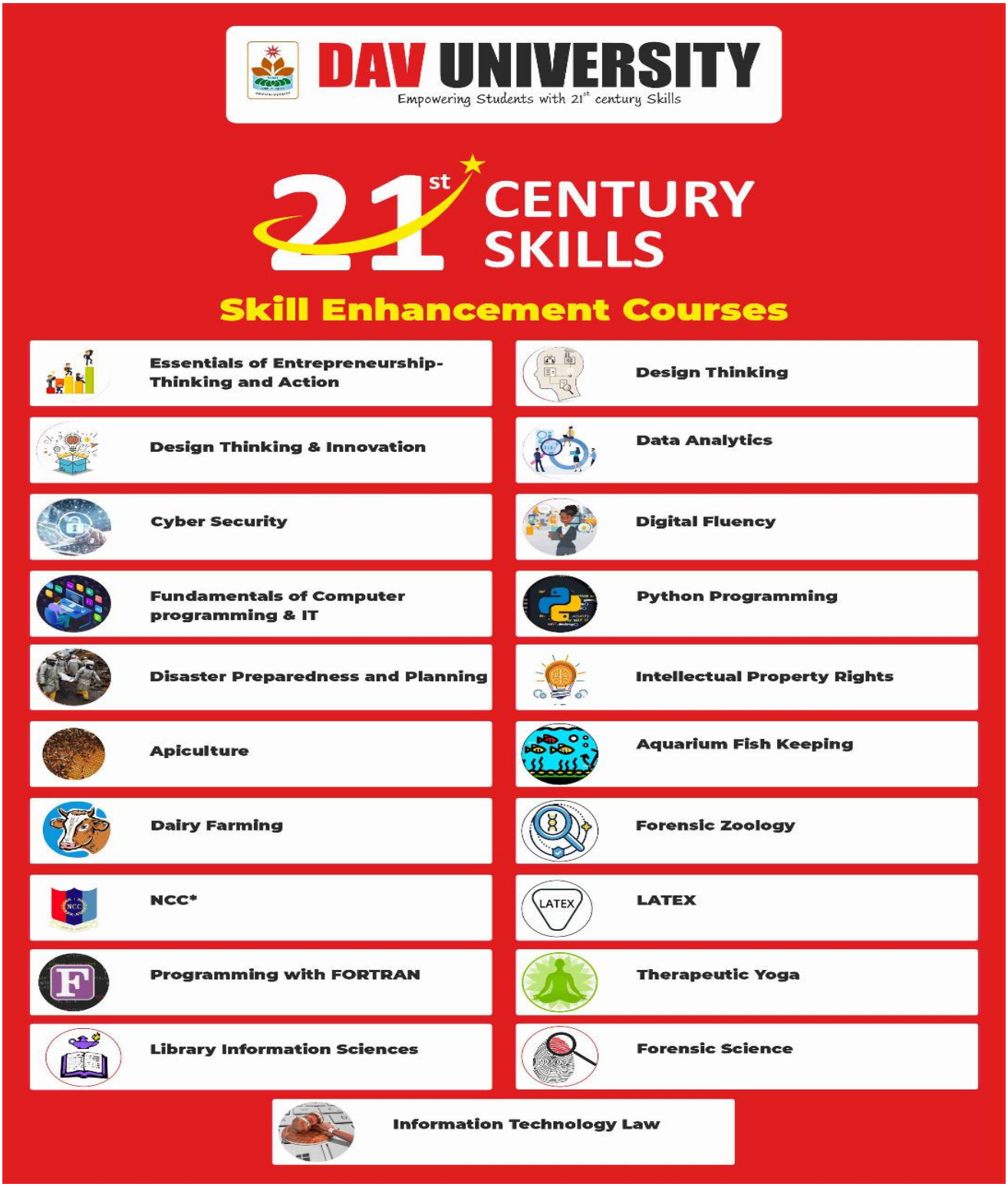

Figure 4: Value-Added Courses

Table 8: Common courses with Credits and Departments

Ability Enhancement Courses	**Cr.**	**Deptt.**	**Skill Enhancement Courses**	**Cr.**	**Deptt.**	**Value Added Courses**	**Cr.**	**Deptt.**
Personality Enhancement	1L+1P	CBM&E	Essentials of Entrepreneurship-Thinking and Action **(MGN101S)**	2L+1P	CBM&E	Environmental Studies **(Mandatory) (EVS104)**	1L+1P	EVS & Botany
Personality Development **(PSY190)**	2P	Psychology	Design Thinking **(MED104)**	2P	Mech. Engg.	Human Values and Ethics **(HVE101) (Mandatory)**	2L	English
Behavioural & Life Skills **(PSY191)**	1L+1P	Psychology	Design Thinking & Innovation **(MGN102S)**	2L	CBM&E	Philosophy of Swami Dayanand Saraswati	2L	Vedic Studies
Global Citizenship in Higher Education	2L	English	Data Analytics	2L+1P	CSE	Philosophy of Mahatma Anand Swami Saraswati	2L	Vedic Studies
Communication Skills **(ENH151) (Mandatory)** **OR** Cambridge English-I **(ENH111) (Mandatory#)** & Cambridge English-II **(ENH112) (Mandatory#)** *# To be offered in two semesters*	1L+1P 1L+1P 1L+1P	English	Cyber Security **(CST192)**	2L+1P	CSE	Gender Sensitization	2L	EVS & Botany
		English	Digital Fluency **(CSP191)**	1L+1P	CSA	Professional Ethics	2L	CBM&E
Technical Report Writing (**MCR198)**	2L	Microbiology	Fundamentals of Computer programming & IT (FCPIT) **(CST194)**	2L+1P	CSE	Sustainable Development	2L	Botany & EVS
Leadership Management	2L	CBM&E	Python Programming	2L+1P	CSE	Green Technologies	1L+1P	Elect. Engg.
Creative & Critical Thinking	1L+1P	Education	Disaster Preparedness and Planning **(CED100)**	2L	Civil Engg.	General Studies	1L+1P	English

Community Engagement & Social Responsibility **(CEC103) (Mandatory)**	1L+1P	Agriculture	Intellectual Property Rights **(PHS148A)**	2L	Physics	NSS	2L	NSS
Laws Relating to Right to Information	2L	Law & Legal Studies	Apiculture **(ZOL192)**	2P	Zoology	Health & Yoga	1L+1T	Phy Edu.
Legal Drafting	2L	Law & Legal Studies	Aquarium Fish Keeping	1L+1P	Zoology	Drug Abuse: Issues, Interventions, and Rehabilitation	2L	Pharmaceutical Sciences
			Dairy Farming	2L+1P	Zoology	Vedic Mathematics	2L	Mathematics
			Forensic Zoology	2L+1P	Zoology	Wildlife Conservation and Management	2L	Zoology
			NCC* **(NCC201) (NCC202)**	2L+1P	NCC	Understanding Animal Behaviour	2L	Zoology
			LATEX	1L+2P	Mathematics	Legal Aid – Justice & Law		Law & Legal Studies
			Programming with FORTRAN	2L+1P	Physics	Environmental Law		Law & Legal Studies
			Therapeutic Yoga	1L+1P	Phy. Edu.			
			Library Information Sciences	1L+2P	Library Sciences			
			Forensic Science	3L	Law & Legal Studies			
			Information Technology Law	3L	Law & Legal Studies			

Notes:

a. *Due to the constraint on total number of credits to be restricted under 160 for four year UG programmes, the mandatory courses which may or may not fall under ability-enhancement, skill-enhancement (common) or value-added courses can be offered as non-credit course and the student will have to qualify (as Satisfactory/Unsatisfactory) these courses to secure minimum passing marks through the process of assessment as mandated by DAV University.*

b. *Minimum number of students feasible to run a common course (Ability-enhancement, Skill-enhancement (common) and Value-added) will be 20 students.*

c. **Pre-requisite to opt NCC is that the student must be in possession of Certificate B or has appeared in B-certificate exam of NCC. NCC course shall run in two semesters of 3 credits*

(2L+1P) in each semester. Student who wishes to opt for NCC is required to study in two semesters of total 6 credits.

7) **Summer Internship/Apprenticeship:** Students are required to go through internship/ apprenticeship during summer term with a purpose to induce practical actual work situation first-hand experience in order to enhance employability among them. It may include the opportunities to **work with firm/ industry/ organization** (local industry, business organizations, health and allied areas, local governments like-panchayats, municipalities), Parliament or elected representatives, media organizations, artists, crafts persons, and a wide variety of organizations) **or training in labs with faculty and researchers** in their own or other higher education or research institutions or **Community Engagement & Service or field based learning/minor project** aiming to give exposure to students with developmental related issues in rural & urban areas.

- ***Students are required to undergo vocational training during summer term after the completion of first year of the programme.***
- ***Students are required to complete field work project/internship with external entity/industrial training/minor project during the summer term after the completion of second year of the programme.***
- ***Community Engagement & Service and field based learning/minor project can be offered as a part of major or minor course depending upon the subject of study.***

8) **Research Project/Dissertation:** Students opting for 4 year UG degree Honours with Research are required to undertake research project which they are expected to complete in 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.

9) **Other Activities:** It may include participation of students in National Service Scheme (NSS), National Cadet Corps (NCC), and Rural Agricultural Work Experience (RAWE) for rural & industrial attachment with five adopted villages by DAV University, adult education/literacy initiatives, mentoring school students, related activities.

Table 9: Coding Scheme for Courses:

Code	Course Type	Course Specification
0-99	Pre-requisite courses	Pass or fail criteria without consideration of credits
100-199	Foundation or introductory courses	Prerequisites for courses in the major subject & help the student to decide the subject or discipline of interest.
200-299	Intermediate-level courses	Subject specific courses for minor or major areas of learning
300-399	Higher-level courses	Majoring in a disciplinary/inter-disciplinary area of study for the award of a degree
400-499	Advanced courses	Lecture courses with practicum, seminar-based course, term papers, research methodology, advanced laboratory experiments/software training, research projects, hands-on-training, internship/apprenticeship projects.
500-599	First-year Master's degree level courses for a 2-year Master's degree programme	
600-699	Courses for second-year of 2-year Master's or 1-year Master's degree programme	
700-799 & above	Courses limited to doctoral students	

➢ Semester wise curricular components of UG Programme:

1. **Semester 1 & 2**:
    - Undergo courses in 4 broad disciplines i.e. major stream, minor stream and 2 broad disciplines offered from multi-disciplinary category.
    - The aim is to provide the basic knowledge in 2 other disciplines other than the major stream
    - At the end of 2nd semester student can continue with the already chosen major or can switch to other major stream for which he/she is already introduced in first two semesters.
    - Students will also choose the courses from Ability-Enhancement (language), Skill-Enhancement, and Value-added categories as per their interest.

- **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.

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.

2. **Semester 3 & 4:**
    - Students will choose and study the courses in major & minor stream.
    - Also study the courses for the enhancement of their language skills and other skill-augmenting courses and vocational training.
3. **Semester 5 & 6:**
    - Students will study higher level courses for in depth knowledge in major and minor streams.
    - In addition students will undergo work related skill-based courses in vocational education so as to meet industry or society requirements.
4. **Semester 7 & 8:**
    - Students will choose and study advance level courses for major and minor streams to get UG degree (Honours).
    - Courses related to research and seminar presentations.
    - Students will also undertake research project/ dissertation.

Table 10: Credit Distribution- Semester wise and Broad Course Category wise:

SEMESTER I		
Course Category	**Course Level**	**Credits**
Discipline Specific Course-Core	100 (Foundation/introductory)	4 (course structure can have L+P combination credits)
Discipline Specific Course-Core/ Interdisciplinary Course/ Discipline Specific-Skill Enhancement Course-Core	100 (Foundation/introductory)	4 (course structure can have L+P combination credits)
Multidisciplinary Course	1 course	3
Ability Enhancement Course-Common	1 course	2
Skill Enhancement Course-Common	1 course	2
Value Added Course-Common	1 course	2
*Skill Enhancement Course-Common/Value Added Course-Common/ Discipline Specific Course-Core/ Discipline Specific Skill Enhancement Course-Core/ Discipline Specific Value Added Course-Core/ Interdisciplinary Course-Core	1 course	2
Total		**19**
Note: *Department shall offer one course of 2 credits out of the course repository of Skill Enhancement Courses-Common or Value Added Courses-Common/Discipline Specific Course-Core/Discipline Specific Skill Enhancement Course-Core/Discipline Specific Value Added Course-Core/Interdisciplinary Course-Core semester I.		
SEMESTER II		
Discipline Specific Course-Core	100 (Foundation/introductory)	Minimum 4-5 (course structure can have L+P combination credits)
Discipline Specific Course-Core/ / Discipline Specific-Skill Enhancement Course-Core/ Interdisciplinary Course-Core	100 (Foundation/introductory)	Minimum 4-5 (course structure can have L+P combination credits)
Multidisciplinary Course	1 course	3
Ability Enhancement Course-Common	1 course	2
Skill Enhancement Course-Common	1 course	3
Value Added Course-Common	1 course	2
Value Added Course- Common	1 course	2

Total		**21**
Note: *Department shall offer one course of 5 credits either of Discipline Specific Course-Core/Interdisciplinary Course/Discipline Specific-Skill Enhancement Courses-Core in semester II.		
EXIT1: Students exiting the programme after securing 40 credits will be awarded UG Certificate in the relevant Discipline /Subject provided they earn 4 credits in work-based employability oriented vocational/ skill development courses viz. NSDC/ industry collaborated certifications- SAP/ INTEL/ L&T etc. or discipline specific courses or internship/ apprenticeship offered during summer term (i.e. 40+4= 44 credits) ***Undergraduate Certificate in _____***		
SEMESTER III		
Discipline Specific Course-Core	200 (Intermediate level course/s) 1 or 2 courses	4 (course structure can have L+P combination credits)
Minor Course- Discipline Specific Course/ Discipline Specific-Skill Enhancement Course/ Interdisciplinary Course Or Discipline Specific Course-Core/ Discipline Specific-Skill Enhancement Course-Core/ Interdisciplinary Course- Core	200 or above (Intermediate/higher/advance level course)	4 (course structure can have L+P combination credits)
Minor Course- Discipline Specific Course/ Discipline Specific-Skill Enhancement Course/ Interdisciplinary Course Or Discipline Specific Course-Core/ Discipline Specific-Skill Enhancement Course-Core/ Interdisciplinary Course- Core	200 or above (Intermediate/higher/advance level course)	2
Multidisciplinary Course	1 course	3
Ability Enhancement Course-Common	1 course	2
Skill Enhancement Course-Common	1 course	3
*Value Added Course-Common	Optional to offer out of Value Added Course-Common repository	2
Total		**20**

**Note: ***The department has the flexibility to offer either of Discipline Specific Course-Core/ Discipline Specific-Skill Enhancement Courses-Core/ Interdisciplinary Course- Core or Minor Course- Discipline Specific Course/Interdisciplinary Course		
SEMESTER IV		
Discipline Specific Course-Core	200 (Intermediate level course/s) 1 or 2 courses	4(course structure can have L+P combination credits)
Minor Course- Discipline Specific Course / Discipline Specific-Skill Enhancement Course/ Interdisciplinary Course Or Discipline Specific Course-Core/ Discipline Specific-Skill Enhancement Course-Core/ Interdisciplinary Course- Core	200 or above (Intermediate/higher/advance level course)	4 (course structure can have L+P combination credits)
Multidisciplinary Course	N.A.	
Ability Enhancement Course-Common	1 course	2
Skill Enhancement Course-Common	N.A.	
Value Added Course-Common	Optional to offer out of Value-added repository	2
Total		**20**

Exit 2: Students exiting the programme after securing 80 credits will be awarded UG Diploma in the relevant Discipline /Subject provided they secure additional 4 credits in work-based employability oriented vocational/ skill development courses viz. NSDC/ SAP certifications/ discipline specific courses or internship/ apprenticeship offered during first year or second year summer term.

Undergraduate Diploma in _____

SEMESTER V		
Discipline Specific Course-Core	300 (Higher level course/s) 1 or 2 courses	4(course structure can have L+P combination credits)
Minor Course- Discipline Specific Course / Discipline Specific-Skill Enhancement Course/ Interdisciplinary Course Or	200 or above (Intermediate/higher/advance level course)	4 (course structure can have L+P combination credits)

Discipline Specific Course-Core/ Discipline Specific-Skill Enhancement Course-Core/ Interdisciplinary Course- Core		
Multidisciplinary Course	N.A.	
Ability Enhancement Course-Common	N.A.	
Skill Enhancement Course-Common	Internship	4
Value Added Course-Common	N.A.	
Total		**20**
Note: Department can offer 2 or 3 courses of total 8 credits of Discipline Specific Course-Core or Minor Course- Discipline Specific Course-Core/Interdisciplinary Course/Discipline Specific-Skill Enhancement Courses-Core Or Interdisciplinary Course/ Discipline Specific-Skill Enhancement Courses-Core for acquiring a total of 20 credits in semester V.		
SEMESTER VI		
Discipline Specific Course-Core	300 (Higher level course/s) 1 or 2 courses	4(course structure can have L+P combination credits)
Minor Course- Discipline Specific Course / Discipline Specific-Skill Enhancement Course/ Interdisciplinary Course Or Discipline Specific Course-Core/ Discipline Specific-Skill Enhancement Course-Core/ Interdisciplinary Course- Core	200 or above (Intermediate/higher/advance level course)	4 (course structure can have L+P combination credits)
Multidisciplinary Course	N.A.	
Ability Enhancement Course-Common	N.A.	
Skill Enhancement Course-Common	N.A.	
Value Added Course-Common	N.A.	
Total		**20**
Note: Department can offer 3 or 4 courses of total 12 credits of Discipline Specific Course-Core or Minor Course- Discipline Specific Course-Core/Interdisciplinary Course/Discipline Specific-Skill Enhancement Courses-Core Or Interdisciplinary Course/ Discipline Specific-Skill Enhancement Courses-Core for acquiring a total of 20 credits in semester VI.		

Exit 3: Students who want to undertake 3-year UG programme will be awarded UG Degree in the relevant Discipline /Subject upon securing 120 credits. ***Bachelor's Degree in*** _____		
SEMESTER VII		
Discipline Specific Course-Core	400 (Advance level course/s) 1 or 2 courses	4(course structure can have L+P combination credits)
Minor Course- Discipline Specific Course-Core/ Interdisciplinary Course/ Discipline Specific-Skill Enhancement Course-Core Or Discipline Specific Course-Core/ Interdisciplinary Course/ Discipline Specific-Skill Enhancement Course-Core	300 or above (Higher/ advance level course)	4 (course structure can have L+P combination credits)
Multidisciplinary Course	N.A.	
*Ability Enhancement Course-Common	Optional to offer out of Ability Enhancement Course- Common repository	
Skill Enhancement Course-Common	N.A.	
Value Added Course-Common	N.A.	
Total		**20**
Note: *The department has the flexibility to offer either of Discipline Specific Course-Core or Minor Course- Discipline Specific Course-Core/Interdisciplinary Course/Discipline Specific-Skill Enhancement Courses-Core Or Interdisciplinary Course/ Discipline Specific-Skill Enhancement Courses-Core, instead of offering Ability-Enhancement course		
SEMESTER VIII		
**Discipline Specific Course-Core	400 (Advance level course/s) 1 or 2 courses	4(1 or 2 credits may be included as tutorial or practical)
****Minor Course- Discipline Specific Course-Core/ Interdisciplinary Course/ Discipline Specific-Skill Enhancement Course-Core Or Discipline Specific Course-Core/ Interdisciplinary Course/ Discipline Specific-Skill	300 or above (Higher/ advance level course)	4 (1 or 2 credits may be included as tutorial or practical)

Enhancement Course-Core		
Multidisciplinary Course	N.A.	
*Ability Enhancement Course-Common	Optional to offer out of Ability Enhancement Course- Common repository	
Skill Enhancement Course-Common	Research project/ dissertation	9-12
* Value Added Course-Common	Optional to offer out of Value-added repository	
Total		**20**

**Note: 1 ***The department has the flexibility to offer either of Discipline Specific Course-Core/ Minor Course- Discipline Specific Course-Core/ Interdisciplinary Course/ Discipline Specific-Skill Enhancement Courses-Core
Or
Discipline Specific Course-Core/ Interdisciplinary Course/ Discipline Specific-Skill Enhancement Courses-Core, instead of offering Ability-Enhancement course and Value-added course
2 ***The department may offer* Discipline Specific Course-Core *or* Minor Course- Discipline Specific Course-Core/ Interdisciplinary Course/ Discipline Specific-Skill Enhancement Courses-Core *or* Discipline Specific Course-Core/ Interdisciplinary Course/ Discipline Specific-Skill Enhancement Courses-Core *course as seminar-based with students' presentations and discussions/projects and related.*

Exit 4:

1. In case of 4 year Honours student, 3 courses of 12 credits is to be completed instead of 12 credit research project/dissertation will be awarded UG Degree (Honours) in the relevant Discipline /Subject provided they secure 160 credits
2. Students will be awarded UG Degree (Honours) with Research in the relevant Discipline /Subject provided they secure 160 credits

Bachelor's Degree (Honours) in _____

Bachelor's Degree (Honours with Research) in _____

Notes:

1. **Mandatory yearly (two semesters) credits- 40. However, the departments have 10 percent flexibility to adjust yearly credits in order to complete 40 credits at the end of the year. For example: If a department decides to offer 18 credits in semester I, then in semester II the department has to offer 22 credits in order to complete yearly 40 credits.**
2. **The department has to ensure minimum of 50% of the total credits offered from the major discipline for the 3-year/4-year UG degree. 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. 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. /Hons. with Research) in Physics in a 4-year UG programme.

3. **A programme elective course shall be offered to students, if at least 20 percent of the total strength of the class opt the course or 10 students, whichever is higher.**
4. **Student can opt to complete the Programme elective through MOOC courses (SWAYAM/ NPTEL). The BoS will share the list of recommended MOOC courses for programme elective two times every year (i.e. tentatively in July and December).**
5. **Students who shall opt to exit either after first year (with UG Certificate) or second year (with UG Diploma) require to secure additional 4 credits in four to six weeks work based vocational courses offered during summer term or internship / Apprenticeship at the end of even semester (2nd or 4th semester).**

➢ Types of Programmes

The nomenclature of the programmes to be offered is to be decided by the departments. Different types of programmes may fall within the broad category as follows:

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. /Hons. 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.

Inter-disciplinary UG Programmes: The credits for core courses shall be distributed among the constituent disciplines/subjects so as to get core competence in the inter-disciplinary 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.

Multi-disciplinary UG Programmes: In the case of students pursuing a multi-disciplinary 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.

In hours			
L	**T**	**P**	**Credit**

Course Code								
Course Title								
Course Outcomes	On the completion of the course the student will be able to CO1: CO2: CO3: CO4:							
Examination Mode	Theory/ Practical/ Theory + Practical							
***Assessment Tools**	**Continuous Assessment**				**MSE**	**MSP**	**ESE**	**ESP**
	W Quiz	**SAP**	**ABL/PBL**	**Lab Performance**				
Weightage	-	-	-	-	-	-	-	-
Syllabus								CO Mapping
Unit 1	Name the broad Coverage of Unit							
•								
•								
•								
•								
Unit 2	Name the broad Coverage of Unit							
•								
•								
•								
•								
Unit 3	Name the broad Coverage of Unit							
•								
•								
•								
•								
Unit 4	Name the broad Coverage of Unit							
•								
•								
•								
•								
Text Books	1. 2.							
Reference Books	1. 2. 3.							

*

W Quiz- Written Quiz
ABL/PBL- Activity base learning/ Project base learning
MSE- Mid Semester Examination
ESE- End Semester Examination

SAP- Seminar-Assignment-Project Work
Lab Performance- Lab Performance

MSP- Mid Semester Practical
ESP- End Semester Practical

Credit Wise Assessment Criteria

Sr. No.	Combination of Credits (L+T+P is in hours)	Continuous Assessment				MSE	MSP	ESE	ESP	Total
		Quiz	Assignment	ABL /PBL	Lab Performance					
1.	1 + 0 + 0 = 1 Cr.	10	10	5		25		50		100
2.	2 + 0 + 0 = 2 Cr.	10	10	5		25		50		100
3.	3 + 0 + 0 = 3 Cr.	10	10	5		25		50		100
4.	4 + 0 + 0 = 4 Cr.	10	10	5		25		50		100
5.	5 + 0 + 0 = 5 Cr.	10	10	5		25		50		100
6.	6+ 0 + 0 = 6 Cr.	10	10	5		25		50		100
7.	0+ 0 + 2 = 1 Cr.				20		30		50	100
8.	0+ 0 + 4 = 2 Cr.				20		30		50	100
9.	0+ 0 + 6 = 3 Cr.				20		30		50	100
10.	0+ 0 + 8 = 4 Cr.				20		30		50	100
11.	0+ 0 + 10 = 5 Cr.				20		30		50	100
12.	0+ 0 + 12 = 6 Cr.				20		30		50	100
13.	0+ 0 + 14 = 7 Cr.				20		30		50	100
14.	0+ 0 + 16 = 8 Cr.				20		30		50	100
15.	0+ 0 + 18 = 9 Cr.				20		30		50	100
16.	0+ 0 + 20 = 10 Cr.				20		30		50	100
17.	0+ 0 + 22 = 11 Cr.				20		30		50	100
18.	0+ 0 + 24 = 12 Cr.				20				80*	100
19.	1+ 0 + 2 = 2 Cr.	10		5			20	35	30	100
20.	1+ 0 + 4 = 3 Cr.	10		5			25	25	35	100
21.	2+ 0 + 2 = 3 Cr.	10		5		25		35	25	100
22.	2+ 0 + 4 = 4 Cr.	10		5			20	35	30	100
23.	3+ 0 + 2 = 4 Cr.	10		5		25		35	25	100
24.	4+ 0 + 2 = 5 Cr	10		5		25		35	25	100
25.	1+ 0 + 6 = 4 Cr.	10		5			25	25	35	100
26.	2+1 + 0 = 3 Cr.	10	10	5		25		50		100
27.	3+1 + 0 = 4 Cr.	10	10	5		25		50		100
28.	4+1 + 0 = 5 Cr.	10	10	5		25		50		100
29.	2+ 1 + 2 = 4 Cr.	10		5		25		35	25	100
30.	In case of non-credit courses, the components of assessment criteria shall remain the same and the performance in the course shall be graded as either Satisfactory (S) or Unsatisfactory (U)									

*In case of Project evaluation the following criteria shall be followed:

Assessment Tools	Proposal- Objectives & Literature	Project Plan	Data or Results	Project Report & Presentation	Future Scope
Weightage	20%	15%	15%	40%	10%

Further, the common courses run throughout the university there will be same course code, credits, syllabus and evaluation criteria and one exam shall be conducted for all students.

The course codes will be as follows, where NEP 2020 applicable:

Sr. No.	Programme Name	Course code
1.	B. Sc. Physics	PHS
2.	B. Sc. Chemistry	CHM
3.	B. Sc. Mathematics	MAT
4.	B. Sc. Botany	BTN
5.	B. Sc. Biotechnology	BTG
6.	B. Sc. Microbiology	MCR
7.	B. Sc. Zoology	ZOL
8.	BCA	CSP
9.	B. Sc. Computer Science	CSP
10.	B.A. English	ENH
11.	B.A. JMC	MCJ
12.	B. Com	CMR
13.	BBA	MGN
14.	B.Sc. Economics	ECN
15.	B. Sc. Health & Physical Edu.	PED
16.	B.Tech. Mech. Engg.	MED
17.	B.Tech. Civil Engg.	CED
18.	B.Tech. Electrical Engg.	EED
19.	B.Tech. CSE	CSD
20.	B.Tech. CS & AI	CAI
21.	B. Tech. Data Science	CDS

Three-digit number used as suffix with the course code for identifying the level of the course. Digit at hundred's place signifies the year in which course is offered e.g.

101, 102 …. etc., for first year
201, 202 ….., for second year
301, 302 …. for third year
401, 402 ….. for fourth year

Furthermore, the course codes for Multidisciplinary and common courses offered by the department will be provided by the respective department. For example, "**Basics of Physics**" offered by the Physics department (Multidisciplinary) and "**Communication Skills**" offered by the English department (Common Courses).