

UNIVERSITY OF DELHI

UNDERGRADUATE PROGRAMMES OF STUDY

STRUCTURE & COURSES



PREAMBLE

Disclaimer: The syllabi are uploaded as provided by the Faculty concerned to the Academic Council. The same has been approved by the Academic Council on and Executive Council on

The National Education Policy 2020 (NEP) has been formulated in response to the need to harness full human potential and develop well-rounded competent individuals by providing the right environment to enable access to inclusive and equitable quality education. Such education should have provision for lifelong learning, awareness of new areas of knowledge, skilling to meet industrial demands for economic development, multidisciplinary studies to develop a comprehensive view of issues from a realistic paradigm, holistic approach to education, rootedness to the cultural ethos and moral values, cultivating scientific temperament and problem-solving attitude. The policy also focuses on promoting critical thinking, innovation and creativity to enable the use and promotion of higher order thinking skills. Indeed, NEP is set to revolutionize the education system in the country right from school to higher education.

To actualise the noble objective, as succinctly brought out in the National Education Policy 2020, the university has endeavoured to explore the possibility of further restructuring and refinement of its undergraduate curriculum framework in line with the objective and underlying philosophy of the NEP 2020 to capture the imagination of the youth of our nation which depicts the contemporary realities of our demographic advantage globally.

The resultant outcome of this comprehensive exercise undertaken by the university is the Undergraduate Curriculum Framework-2022 (UGCF-2022) which not only underlines the heart and soul of the NEP 2020 in letter and spirit but also goes on to create a teaching-learning framework at the undergraduate level to attract the young minds towards research, innovation, apprenticeship, social outreach, entrepreneurship and similar such areas of human knowledge and endeavour while imbibing the truly charged academic environment of the university and its constituent colleges.

UGCF 2022

Objectives:

The Undergraduate Curriculum Framework- 2022 (UGCF) is meant to bring about systemic change in the higher education system in the University and align itself with the National Education Policy 2020. The following objectives of NEP are kept in perspective while framing UGCF:

➤ to promote holistic development of students having the world view of a truly

global citizen;

- to provide flexibility to students so that learners have the ability to choose their learning trajectories and programmes, and thereby choose their paths in life according to their talents and interests;
- to eliminate harmful hierarchies among disciplines/fields of study and silos between different areas of learning;
- multidisciplinary and holistic education to ensure the unity and integrity of all knowledge;
- to promote creativity and critical thinking and to encourage logical decision-making and innovation;
- to promote ethics and human & Constitutional values;
- to promote multilingualism and the power of language in learning and teaching;
- to impart life skills such as communication, cooperation, teamwork, and resilience;
- to promote outstanding research as a co-requisite for outstanding education and development;
- to incorporate Indian Knowledge System relevant for a particular discipline or field of studies.

Features

The aforementioned objectives of the NEP have been reflected in various features of UGCF:

- Holistic development of the students shall be nurtured through imparting life skills in initial years. These life skill courses shall include courses on 'Environment and Sustainable Development Studies', 'Communication Skills', 'Ethics and Culture', 'Science and Society', 'Computational Skills', 'IT & Data Analytics', and similar such skills which shall make the students better equipped to deal with the life's challenges.
- Flexibility to the students to determine their learning trajectories and pursuance of programmes of study has been well ingrained in the UGCF. The Framework allows students to opt for one, two, or more discipline(s) of study as a core discipline(s) depending on his/her choice. He/she has been provided the option of focusing on studying allied courses of his/her selected discipline(s) (DSEs) or diversifying in other areas of study of other disciplines. Students have also been provided with the flexibility to study SECs or opt for Internships or Apprenticeship or Projects or Research or Community Outreach at an appropriate stage. In the fourth year, students are provided flexibility to opt for writing a dissertation (on major, minor, or combination of the two) or opt for Academic Projects or Entrepreneurship depending upon their choice and their future outlook, post completion of their formal education.
- Given the extent of plurality of the Indian society and the diverse background to which students belong, multiple exits and provision of re-entry have been provided at various stages of the undergraduate programme to accommodate

their requirement and facilitate them to complete their studies depending upon their priorities of life. The earning and accumulation of credits in the Academic Bank of Credit (ABC), and the flexibility to redeem the requisite credit for award of appropriate Certificate / Diploma/ Degree, as the per the norms laid down by the UGC and the University, shall be made available to the students to provide the opportunity for lifelong learning as well as for availing academic outreach beyond the superstructure of the programme of study in another University / Institution at the national /international level depending upon individual choice of the student(s).

- UGCF has incorporated multidisciplinary education by embedding within the framework the need to opt for at least four elective papers from any other discipline(s) other than the one opted as core discipline(s). In fact, a student who pursues a single-core discipline programme may obtain minor in a particular discipline, other than the core discipline, if he/she earns at least 28 credits in that particular discipline.
- The framework does not maintain/support hierarchy among fields of study/disciplines and silos between different areas of learning. As long as a student fulfils the pre-requisites of a course of study, he/she shall be able to study it. Modules or systems of study shall be meaningfully laid down so as to guide the students in choosing the track/academic paths for the desired outcome.
- One of the significant hallmarks of the framework is a provision of pursuing multilingualism while studying any other discipline as core subject(s), which has no bearing with any language and linguistics. I and II semesters of the programme provides an opportunity to the students to study languages which are enshrined under the eighth schedule of the Constitution of India, thereby allowing the students for their holistic development, including the ability to acquire proficiency in a language beyond their mother tongue.
- The framework provides a mandatory programme on research methodologies as one of the discipline specific elective (DSE) courses at the VI & VII semester for students who opt for writing dissertation on major/ minor at VII and VIII semesters. Further, provision for internship / apprenticeship/ project/ community outreach right from the III semester up to VI semester provides ample opportunity to the students to explore areas of knowledge / activity beyond the four walls of the classroom and reach out to the world outside without any dilution of the academic feature of the course of study, he/she is pursuing. This also acts a precursor for the students to take up academic project or entrepreneurship at a later stage in VII & VIII semester. Such an initiative will help in skill development and laying a strong foundation for

research and thus contribute towards overall national development through the development of skilled manpower and innovation.

- Intra and inter University mobility of students is another element of critical importance which has been ingrained in the framework. A student, by virtue of such mobility, will be able to make lateral movement within the University as well as from the University to any other Institution and vice-versa. Such an attribute allows a student maximum flexibility in terms of pursuance of education with special reference to higher education and enables him/ her to achieve goal of life, the way he/she perceived it.

Definitions

1. **Academic credit** – An academic credit is a unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week.
2. **Courses of study** – Courses of the study indicate pursuance of study in a particular discipline. Every discipline shall offer three categories of courses of study, viz. Discipline Specific Core courses (DSCs), Discipline Specific Electives (DSEs) and Generic Electives (GEs).
 - a) **Discipline Specific Core (DSC):** Discipline Specific Core is a course of study, which should be pursued by a student as a mandatory requirement of his/her programme of study. DSCs shall be the core credit courses of that particular discipline which will be appropriately graded and arranged across the semesters of study, being undertaken by the student, with multiple exit options as per NEP 2020. The DSCs specified in the framework would be identified by the concerned Department as core courses to be taught in a Programme.

For example, for award of single discipline specific Honours degree, such as B.A. (Honours) History, B.Com. (Honours), B.Sc. (Honours) Physics and similar such programmes, DSCs shall be the core courses of History, Commerce and Physics, respectively.

However, to pursue Honours degree programme in a 'Field of Multidisciplinary courses of Study' (rather than a single discipline) such as B.Sc. (Honours) Life Sciences, B.A. (Honours) Social Sciences/ Humanities, the DSCs shall comprise of core credit courses of more than one discipline. For example, for B.Sc. (Honours) Life Sciences programme, a student shall study credit courses of three disciplines i.e., Botany, Zoology and Chemistry. DSC 1 may be of Discipline A1 (say, Botany), DSC 2 may be of Discipline B 1 (say, Zoology) and DSC 3 may be

of Discipline C 1 (say, Chemistry). However, the fourth year of such honours degree programme shall be devoted to the study of only one discipline and hence the DSC courses in the VII and VIII semesters shall be of Discipline A/B/C and not a combination of these three disciplines. Please refer to the framework given as Illustration –I in Table-6 in UGCF 2022.

- b) **Discipline Specific Elective (DSE):** The Discipline Specific Electives (DSEs) shall be a pool of credit courses of that particular discipline (single discipline programme of study) or those disciplines (multidisciplinary programme of study), as the case may be, which a student chooses to study from his/her particular discipline(s). There shall be a pool of DSEs from which a student may choose a course of study. The DSEs specified in the framework would be identified by the concerned Department as elective courses to be taught in a Programme.

For example, to pursue B.Sc. (Honours) Physics, DSEs chosen should be from a pool of DSEs of Physics. Similarly, to pursue B.Sc. (Honours) Life Sciences programme, the DSEs chosen should be a pool of courses of DSEs of Botany, Zoology and Chemistry, the core subjects for this programme of study.

However, to pursue Honours degree programme in a 'Field of Multidisciplinary courses of Study' (rather than a single discipline) such as B.Sc. (Honours) Life Sciences, B.A. (Honours) Social Sciences/Humanities, in the fourth year of such honours degree programme in the VII and VIII semesters, the student shall be required to choose DSEs from any one of the Disciplines A/B/C and not a combination of these three disciplines. Please refer to the framework given as Illustration – I in Table – 6 of UGCF 2022.

- c) **Generic Elective (GE):** Generic Electives shall be a pool of courses which is meant to provide multidisciplinary or interdisciplinary education to students. GEs shall consist of a pool of courses offered by various disciplines of study (excluding the GEs offered by the parent discipline), in groups of odd and even semesters, from which a student can choose. The GEs specified in the framework would be identified by the concerned Department as GEs to be taught in a Programme.

In case a student opts for DSEs beyond his/her discipline specific course(s) of study, such DSEs shall be treated as GEs for that student.

- d) **Ability Enhancement course (AEC), Skill Enhancement Course (SEC) & Value Addition Course (VAC)**

These three courses shall be a pool of courses offered by all the Departments in groups of odd and even semesters from which students can choose. A student who desires to make Academic Project/Entrepreneurship as Minor has to pick the appropriate combination of courses of GE, SEC, VAC, & Internship/Apprenticeship/Project/Community (IAPC) which shall be offered in the form of various modules as specified in the scheme of studies.

- (i). AEC courses are the courses based upon the content that leads to knowledge enhancement through various areas of study. They are Language and Literature and Environmental Science which will be mandatory for all disciplines.
- (ii). SEC are skill-based courses in all disciplines and are aimed at providing hands-on-training, competencies, proficiency and skills to students. SEC courses may be chosen from a pool of courses designed to provide skill-based instruction. Every discipline may provide skill based courses, some of which may be offered to students of its discipline while the rest can be open to students of all other disciplines.
- (iii). VAC courses are common pool of courses offered by different disciplines and aimed towards personality building; embedding ethical, cultural and constitutional values; promote critical thinking, Indian Knowledge Systems, scientific temperament, communication skills, creative writing, presentation skills, sports & physical education and team work which will help in all round development of students.

3. **Major discipline**

- a) A student pursuing four-year undergraduate programme in a specific discipline (Core course) shall be awarded an appropriate Honours degree with Major in a Discipline on completion of VIII Semester, if he/she secures in that Discipline at least 50% of the total credits i.e., at least 88 credits in that Discipline out of the total of 176 credits. He/she shall study 20 DSCs and at least 2 DSEs in eight semesters. For instance, a student who pursues B.Com. (Honours) shall earn the minimum 88 credits from 20 DSCs and *at least* two DSEs in order to get Major in Commerce.
- b) A student pursuing four-year undergraduate programme in more than one discipline as Core Course (for example B.A. Social Sciences/ Humanities, B.Sc. Life Sciences, B.Sc. Physical Sciences, B.Sc. Mathematical Sciences, B.Com. and such other programmes) shall be awarded appropriate Honours degree with Major in a Discipline on completion of VIII Semester, if he/she secures in that Discipline 80 credits out of a total of 176 credits. He/she shall study 6 DSCs and at least 3 DSEs in that discipline in the first six semesters and 2 DSCs, 6 DSEs and write dissertation in that discipline in the VII and VIII semesters. For instance, a student who pursues four-year B.A. (Honours) Social Sciences/Humanities shall be eligible for Major in History, on completion of VIII semester, if he/she earns minimum 80 credits from 8 DSCs and *at least* 9 DSEs of History and writes dissertation on a topic related to History.

4. **Minimum acceptable level of academic standards**

The minimum acceptable level of achievement that a student must demonstrate to be eligible for the award of academic credit or a qualification is the minimum acceptable level of academic standards. The Letter Grades and Grade Points which shall be used to reflect the outcome of assessment process of the student's performance is indicated in Table - 1.

Table – 1

Letter Grades and Grade Points

Letter Grade	Grade point
O (outstanding)	10
A+ (Excellent)	9
A (Very good)	8
B+ (Good)	7
B (Above average)	6
C (Average)	5
P (Pass)	4
F (Fail)	0
Ab (Absent)	0

5. Minor discipline

- a) A student mentioned at 3 (a) above may be awarded Minor in a discipline, on completion of VIII Semester, if he/she earns minimum 28 credits from seven GE courses of that discipline. For example, if a student pursuing B.A. (Honours) History chooses seven GE courses of Political Science out of a total of ten GE courses and writes dissertation, he/she shall be awarded on successful completion of VIII Semester, Major in History and Minor in Political Science.
- b) A student mentioned at 3 (b) above may be awarded Minor in a discipline, on completion of VIII Semester, if he/she earns minimum 28 credits from six DSCs and one DSE of that discipline. For example, a student pursuing four-year B.A. (Honours) Social Sciences/Humanities with Major in History (after securing at least 80 credits in History), may be awarded Minor in Hindi if he/she earns 28 credits from six DSCs and one DSE of Hindi (up to VI semester), on successful completion of VIII Semester.

This definition of Minor is independent of GEs for which there is a requirement of 28 credits to be treated as Minor.

Further, in case a student opts for two disciplines such as Physics and Chemistry instead of three disciplines such as Physics, Chemistry and Mathematics, major and minor shall be determined as per credits earned in the respective courses of study. The concept of Minor is relevant only when there is a Major discipline.

Important Points

1. **Entry level eligibility:** The general feeder category for entry into Level 5 is the Secondary School Leaving Certificate obtained after successfully completing Grade 12. A programme of study leading to entry into the first year of the Bachelor's degree is open to those students who have met the entrance requirements, including specified levels of attainment at the secondary level of education mentioned in the programme admission regulations. Admission to the Bachelor degree programme of study is based on the evaluation of documentary evidence (including the academic record) of the applicant's ability to undertake and complete a Bachelor's degree programme which is specified in the *UGC Guidelines for Multiple Entry and Exit Scheme in Academic Programmes Offered in Higher Education*.
2. Number of hours of a credit course shall be defined by its component of lecture, tutorial and practical.
3. Every student has to study "Environmental Science: Theory into Practice" courses I and II of two credits each in the first year (I/II semester) and the second year (III/IV semester), respectively. The AEC pool will also consist of credit courses in languages listed in the Eighth Schedule of the Constitution of India, as updated from time to time. The University of Delhi shall extend necessary support to those Colleges (where faculty is not available) which may require it in course of teaching learning in these languages.
4. There shall be choice in III and IV Semesters to choose either one 'SEC' or in the alternative 'Internship/Apprenticeship/Project/Community Outreach' in each Semester for two credits each.
5. There shall be choice in Semester III and IV to either choose a DSE or a GE.
6. There shall be choice in V and VI Semesters to choose either one 'SEC' or in the alternative 'Internship/Apprenticeship/Project/Research/Community Outreach' in each Semester for two credits each.
7. There shall be three choices in VII and VIII Semesters –
 - (i) to choose three DSEs of 4 credits each OR
 - (ii) to choose two DSEs and one GE of 4 credits each OR
 - (iii) to choose one DSE and two GEs of 4 credits each.
8. 'Research Methodology' shall be offered as one of the DSE courses in VI and VII Semesters. Students can opt for it either in VI semester or VII semester. However, a student pursuing multidisciplinary studies in three core disciplines shall have to choose research methodology in VI semester, if she/he wishes to

Major in one of the three disciplines in the fourth year. Suppose a student wishes to study the Research Methodology course offered by another discipline (as one of its DSEs). In that case, he/she may opt for it provided such discipline is his minor discipline. The Research Methodology of another discipline so opted shall be treated as GE for him/her.

9. A student who pursues three years undergraduate degree programme in a specific discipline as a Core course [for example, B.A. (Honours) English, B. Com (Honours), B.Sc. (Honours) Physics and such other Programmes] will earn at least 80 credits in that discipline (from 18 DSCs and *at least* 2 DSEs of that discipline) and shall be awarded Honours degree in that discipline, if he/she exits after completion of VI semester.
10. A student who pursues three years undergraduate degree programme in more than one discipline as core courses of study (for example B.A. in Social Sciences/ Humanities, B.Sc. in Life Sciences, B.Sc. in Physical Sciences, B.Sc. in Mathematical Sciences, Bachelor in Commerce Studies and such other programmes) he/she shall be awarded Bachelor's degree in that field of multidisciplinary course of study, if he/she exits after completion of VI semester.
11. If a student wishes to pursue four years Honours Degree with research, he/she shall compulsorily opt for a Research Methodology course in either VI Semester or VII Semester as DSE.
12. Dissertation/Academic Project/Entrepreneurship in the 4th year shall commence from VII semester and conclude in VIII semester. Detailed outcomes of each track chosen out of these three options shall be notified and assessment at the end of VII and VIII semesters shall be done accordingly.
13. Dissertation may be written in the Major or Minor or Interdisciplinary (combination of Major and Minor) discipline.
14. If a student mentioned at (6) above continues or re-enters the fourth year for pursuing an Honours degree in that field of multidisciplinary study, he/she has to choose only one of the disciplines he/she had studied as core courses of study in the previous six semesters and earn credits from the 2DSCs and 6DSEs of that chosen discipline in the VII and VIII semesters and write dissertation or opt for Academic Project or Entrepreneurship.
15. If a student mentioned at (5) above, continues or re-enters to study the VII and VIII semesters in the same discipline, and writes dissertation mentioned at (9) above, but no Minor discipline is made out (i.e., credits earned in the GEs of any one discipline is less than 28 credits), then he/she shall be awarded 'Honours with Research' with Major in that discipline on successful completion of VIII Semester.

16. A student mentioned at (6) above, shall be awarded 'Honours' degree in that field of multidisciplinary study on successful completion of VIII semester. For example, *B.A. (Honours) Social Sciences/ Humanities*, *B.Sc. (Honours) Life Sciences*, *B.Sc. (Honours) Physical Sciences*, *B.Sc. (Honours) Mathematical Sciences and Bachelor in Commerce Studies (Honours)*. Major and Minor shall be indicated on fulfilment of the conditions mentioned above at III(3)(b) and III(5)(b), respectively. For instance, a student who pursues four years B.A. (Honours) in Social Sciences/ Humanities with History, Political Science and Hindi as core courses, shall get Major in History, on successful completion of VIII semester, if he/she earns minimum 80 credits in History from 8 DSCs and *at least* 9 DSEs of History and writes dissertation on a topic related to History. Such a student shall get a Minor in Political Science/Hindi, if he/she earns minimum 28 credits from 6 DSCs and one DSE of Political Science/Hindi.
17. Only a student mentioned at (5) above who opts to write a dissertation in the Major/Minor subject in VII and VIII semesters in the fourth year, shall be awarded '*Bachelor of Field of Study/Discipline (Honours with Research) in Discipline*'. For instance, a student who pursues B.Sc. (Honours) in Physics and writes a dissertation on a topic relating to Physics or the Minor in VII and VIII semesters, shall be awarded '*Bachelor of Science (Honours with Research) Physics*'. Major and Minor shall be indicated on fulfilment of the conditions mentioned above at III(3)(a) and III(5)(a), respectively.
18. A student who opts for 'Academic Project' or 'Entrepreneurship' in VII and VIII semesters, instead of writing dissertations, and has earned 28 credits in the relevant GEs, SECs, AECs & IAPC, shall be awarded Minor in Academic Project or Entrepreneurship, as the case may be. '*Bachelor of Field of Study/Discipline (Honours with Academic Project/ Entrepreneurship) in Discipline (Major) & Academic Project/ Entrepreneurship (Minor)*'. If he/she is unable to earn the requisite 28 credits, he/she shall be awarded '*Bachelor of Field of Study/Discipline (Honours with Academic Project/ Entrepreneurship) in Discipline (Major)*'.
19. A student who pursues four-year undergraduate degree programme shall be awarded after completion of the VIII semester an appropriate degree.
20. **Exit Options:** The minimum credit to be earned by a student per semester is 18 credits and the maximum is 26 credits. However, students are advised to earn 22 credits per semester. This provision is meant to provide students the comfort of the flexibility of semester-wise academic load and to learn at his/her own pace. However, the mandatory number of credits have to be secured for the purpose of award of *Undergraduate Certificate/ Undergraduate Diploma/ Appropriate Bachelor's Degree in the field of Study/Discipline*, to a student

who chooses to exit at the end of even semesters (details provided in the Table below).

Sl. No.	Type of Award	Stage of exit	Mandatory credits to be secured for the award
1	<i>Undergraduate Certificate in the field of Study/Discipline</i>	After successful completion of Semester II	44
2	<i>Undergraduate Diploma in the field of Study/Discipline</i>	After successful completion of Semester IV	88
3	<i>Bachelor of (field of Study) (Honours) Discipline</i> (for single core discipline course of study)	After successful completion of Semester VI	132
4	<i>Bachelor of (field of Multidisciplinary courses of Study) (for multiple core disciplines courses of study)</i>	After successful completion of Semester VI	132
5	<i>Bachelor of (Field of Study/ Discipline) (Honours with Research/Academic Projects/Entrepreneurship) Discipline</i> (for single core discipline course of study)	After successful completion of Semester VIII	176
6	<i>Bachelor of (field of Multidisciplinary courses of Study) (Honours)</i>	After successful completion of Semester VIII	176

Graduate Profile/ Attributes as per NHEQF

Type of learning outcomes	The Learning outcomes descriptors
Learning outcomes that	<p>Graduates should be able to demonstrate the acquisition of:</p> <ul style="list-style-type: none"> a comprehensive knowledge and coherent understanding of the chosen disciplinary/ interdisciplinary areas of study in a broad multidisciplinary context, their different learning areas, their linkages with related fields of study, and current and emerging developments associated with the chosen disciplinary/interdisciplinary areas of learning; Procedural knowledge required for carrying out professional or

<p>are specific to disciplinary/ interdisciplinary areas of learning</p>	<p>highly skilled work/tasks related to the chosen field(s) of learning, including knowledge required for undertaking self-employment initiatives, and knowledge and mindset required for entrepreneurship involving enterprise creation, improved product development, or a new mode of organization;</p> <ul style="list-style-type: none"> • skills in areas related to specialization in the chosen disciplinary/interdisciplinary area(s) of learning in a broad multidisciplinary context, including wide-ranging practical skills, involving variable routine and non-routine contexts relating to the chosen field(s) of learning; • capacity to extrapolate from what has been learnt, and apply acquired competencies in new/unfamiliar contexts, rather than merely replicate curriculum content knowledge, to generate solutions to specific problems; •
<p>Generic learning outcomes</p>	<p>Complex problem-solving: The graduates should be able to demonstrate the capability to:</p> <ul style="list-style-type: none"> • solve different kinds of problems in familiar and non-familiar contexts and apply the learning to real-life situations.
	<p>Critical thinking: The graduates should be able to demonstrate the capability to:</p> <ul style="list-style-type: none"> • apply analytic thought to a body of knowledge, including the analysis and evaluation of policies, and practices, as well as evidence, arguments, claims, beliefs and the reliability and relevance of evidence, • identify relevant assumptions or implications; and formulate coherent arguments, • identify logical flaws and holes in the arguments of others, • analyse and synthesize data from a variety of sources and draw valid conclusions and support them with evidence and examples.
	<p>Creativity: The graduates should be able to demonstrate the ability to:</p> <ul style="list-style-type: none"> • create, perform, or think in different and diverse ways about the same objects or scenarios, • deal with problems and situations that do not have simple solutions, • innovate and perform tasks in a better manner, • view a problem or a situation from multiple perspectives, • think ‘out of the box’ and generate solutions to complex problems in unfamiliar contexts.
	<p>Communication Skills: The graduates should be able to demonstrate the skills that enable them to:</p> <ul style="list-style-type: none"> • listen carefully, read texts and research papers analytically and present complex information in a clear and concise manner to different groups/audiences, • express thoughts and ideas effectively in writing and orally and communicate with others using appropriate media,

	<ul style="list-style-type: none"> • confidently share views and express herself/himself, • construct logical arguments using correct technical language related to a field of learning, work/vocation, or an area of professional practice, • convey ideas, thoughts and arguments using language that is respectful and sensitive to gender and other minority groups.
	<p>Analytical reasoning/thinking: The graduates should be able to demonstrate the capability to:</p> <ul style="list-style-type: none"> • evaluate the reliability and relevance of evidence; • identify logical flaws and holes in the arguments of others; • analyse and synthesise data from a variety of sources; <p>draw valid conclusions and support them with evidence and examples, and addressing opposing viewpoints.</p>
	<p>Research-related skills: The graduates should be able to demonstrate:</p> <ul style="list-style-type: none"> • a keen sense of observation, inquiry, and capability for asking relevant/ appropriate questions, • the ability to problematize, synthesize and articulate issues and design research proposals, • the ability to define problems, formulate appropriate and relevant research questions, formulate hypotheses, test hypotheses using quantitative and qualitative data, establish hypotheses, make inference based on the analysis and interpretation of data, and predict cause-and-effect relationships, • the capacity to develop appropriate methodology and tools of data collection, • the appropriate use of statistical and other analytical tools and techniques, • the ability to plan, execute and report the results of an experiment or investigation, • the ability to acquire the understanding of basic research ethics and skills in practicing/doing ethics in the field/ in personal research work, regardless of the funding authority or field of study.
	<p>Coordinating/collaborating with others: The graduates should be able to demonstrate the ability to:</p> <ul style="list-style-type: none"> • work effectively and respectfully with diverse teams, • facilitate cooperative or coordinated effort on the part of a group, • act together as a group or a team in the interests of a common cause and work efficiently as a member of a team.
	<p>Leadership readiness/qualities: The graduates should be able to demonstrate the capability for:</p> <ul style="list-style-type: none"> • mapping out the tasks of a team or an organization and setting direction. • formulating an inspiring vision and building a team that can help achieve the vision, motivating and inspiring team members to

	<p>engage with that vision.</p> <ul style="list-style-type: none"> • using management skills to guide people to the right destination.
	<p>‘Learning how to learn’ skills: The graduates should be able to demonstrate the ability to:</p> <ul style="list-style-type: none"> • acquire new knowledge and skills, including ‘learning how to learn’ skills, that are necessary for pursuing learning activities throughout life, through self- paced and self-directed learning aimed at personal development, meeting economic, social, and cultural objectives, and adapting to changing trades and demands of workplace, including adapting to the changes in work processes in the context of the fourth industrial revolution, through knowledge/ skill development/reskilling, • work independently, identify appropriate resources required for further learning, • inculcate a healthy attitude to be a lifelong learner.
	<p>Digital literacy and skills: The graduates should be able to demonstrate the capability to:</p> <ul style="list-style-type: none"> • use ICT in a variety of learning and work situations, • access, evaluate, and use a variety of relevant information sources, • use appropriate software for analysis of data.
	<p>Digital literacy and skills: The graduates should be able to demonstrate the capability to:</p> <ul style="list-style-type: none"> • use ICT in a variety of learning and work situations, • access, evaluate, and use a variety of relevant information sources, • use appropriate software for analysis of data.
	<p>Value inculcation: The graduates should be able to demonstrate the acquisition of knowledge and attitude that are required to:</p> <ul style="list-style-type: none"> •embrace and practice constitutional, humanistic, ethical, and moral values in life, including universal human values of truth, righteous conduct, peace, love, nonviolence, scientific temper, citizenship values, •practice responsible global citizenship required for responding to contemporary global challenges, for enabling learners to become aware of and understand global issues and to become active promoters of more peaceful, tolerant, inclusive, secure, and sustainable societies, •formulate a position/argument about an ethical issue from multiple perspectives and use ethical practices in all aspects of one’s work, •identify ethical issues related to work, and follow ethical practices, including avoiding unethical behaviour such as fabrication, falsification or misrepresentation of data, or committing plagiarism, and adhering to intellectual property rights, •recognize environmental and sustainability issues, and participate in actions to promote sustainable development.

	<ul style="list-style-type: none"> • adopt objective, unbiased, and truthful actions in all aspects of work.
	<p>Autonomy, responsibility and accountability: The graduates should be able to demonstrate the ability to:</p> <ul style="list-style-type: none"> • apply knowledge, understanding and/or skills with an appropriate degree of independence relevant to the level of the qualification, • work independently, identify appropriate resources required for a project, and manage a project through to completion, • exercise responsibility and demonstrate accountability in applying knowledge and/or skills in work and/or learning contexts appropriate for the level of the qualification, including ensuring safety and security at work places.
	<p>Environmental awareness and action: The graduates should be able to demonstrate the acquisition of and ability to apply the knowledge, skills, attitudes, and values required to take appropriate actions for:</p> <ul style="list-style-type: none"> • mitigating the effects of environmental degradation, climate change and pollution, • effective waste management, conservation of biological diversity, management of biological resources and biodiversity, forest and wildlife conservation and sustainable development and living.
	<p>Community engagement and service: The graduates should be able to demonstrate the capability to participate in community-engaged services/ activities for promoting the well- being of the society.</p>
	<p>Empathy: The graduates should be able to demonstrate the ability to identify with or understand the perspective, experiences, or points of view of another individual or groups, and to identify and understand other people's emotions.</p>