Report of the Committee on

Orienting Planning Education in Line With NEP 2020



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FOREWORD

Spatial planning has been undergoing tremendous transformations on account of rapidly changing physical, demographic, socio-cultural, climatic, environmental, and political scenario of various cities and communities of the world. Accordingly, equipping the human resource for planning and development of urban and rural settlements with the traditional and contemporary concepts and practices in spatial planning is the need of the hour. National Education Policy 2020 has opined that high-quality education is the best way forward for developing and maximizing our country's rich talents and resources for the good of the individual, the society, the country, and the world." United Nations Sustainable Development Goal 4 on Quality Education seeks to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030. `Taking note of India's stand on SDG 4, NEP 2020 pointed that such a lofty goal will require the entire education system to be reconfigured to support and foster learning in the context of fast changing techniques and technologies, so that all of the critical targets of SDG 4 can be achieved. For the same, the urgency is that the advancements in big data, machine learning, and artificial intelligence are made part of the education system to produce skilled human resource. It is also stressed that the manpower should have multidisciplinary abilities across social science, humanities, life science, engineering, technology disciplines. The Policy also proposes to inculcate skills and values by including skill enhancement and value added courses in the course curriculum. In the present scenario of climate change, increasing pollution, and depleting natural resources, it is opined that the skilled force should be trained to the environmental concerns as well.

Human settlements are multidisciplinary in nature, where a balanced mix of physical, social, cultural, economic, and natural resources determine the liveability conditions of their inhabitants. Rapid urbanization in the past three decades has transformed the cities and villages of India ecologically as well as physically. Also, advancements in soft technologies are overtaking the human workforce in preparing the plans for urban, regional, and rural areas.

Noting the guidelines of NEP 2020 issued by Government of India, the Institute constituted a committee to propose a model scheme for Five Years Integrated Programme in Planning Education in 2023. After many deliberations on challenges faced by planning education in India, the committee has come out with a Suggestive Model Document titled Orienting Planning Education in Line with NEP 2020. The document has been finalized after incorporating the suggestions of the experts, the members of ITPI and the Institutes of Planning in India. A Five Years Integrated Postgraduate programme has been proposed in line with the proposal of the NEP 2020 for certificate, diploma, under-graduate (UG), post-Graduate (PG) and Ph.D. programmes at exit options after 1, 2, 3, 4, and 5 years respectively.

The Model Scheme comprises eight sections viz., the emerging planning profession needs and NEP 2020; structure of the course curriculum as per NEP 2020; UG programme structure and credit requirement; programme objectives, outcomes and

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competencies; credit allocations; networking of planning schools for credit transfers; regulatory council for planning education; and other suggestions. The document has been drafted strictly in line with the guidelines of NEP 2020 and in the interest of the planning education and profession in India. It suggests to incorporate foundation courses, professional courses, interdisciplinary courses, environment education courses, value added courses, community engagement and service, global citizenship education, education for sustainable development, digital and technological skills, studio activities, Field Practice/ Projects, Internship/ Research Internship, and research to make the graduate a complete package to meet the planning requirements at different levels for various purposes.

While preparing the document due care has been taken to incorporate the international concepts, policies, programmes, regulations, and best practices to make the planning graduates competent to meet the requirements on the industry at the international level. The document clearly identified the technical and analytical role the town and country planners perform in the country. One of the most important proposal of the model document is to suggest the framework for networking of the Planning Institutes in India for collaborative studios and research apart from credit sharing as per the guidelines of University Grants Commission. Another major suggestion has been regarding the employability of the planning certificate or diploma or UG Degree or PG Degree holder. The suggestive model document is a very well-conceived comprehensive work in the progressive direction of planning education and profession. I hope the document will be useful for all the schools/ institutions/ universities imparting Planning Education across the country.

N. K. Patel President, ITPI

FROM CHAIRMAN'S DESK

National Educational Policy (2020) brought out new vistas in the field of higher education and states that 'higher education can contribute the sustainable livelihoods and economic development of the nation'. Considering that India is steered by majority of the youth population, which propel the urbanisation and the economy, it is essential that the rapid transformation of the economy and urbanisation is managed through a proper planning process. Institute of Town Planners, India (ITPI), established as a leading institution in 1951 under the Companies Act, has been shaping the spatial planning in India not only in urban but also in rural areas. It has been instrumental in facilitating major spatial policies such as First Urbanisation Policy in India, Western Ghats and Eastern Ghats Planning Area, National Capital Regional Plan, Delhi Development Plan, and Spatial Plans in many of the Union Territories. Urban and rural development being the State Government's subject under the Constitution of India, the influence of ITPI in shaping the national and at the state level spatial policies, over a period of time is evident through the contribution of Town and Country Planners across India. ITPI has 23 regional chapters and 5 regional centres efficiently operated through its members, who are heading some of the Town and Country Planning, Urban Development Departments, Development Authorities, and Academic Institutions other than private companies. More than 70 institutions across India impart planning education to improve the capacity of the youth and train them to handle the challenges of urban, rural and regional planning.

The language of planning in India, especially spatial planning, is unique and historic. No other country in the world is so rich in its planning culture and variation. India is pioneer in the field of multitude of languages intricately linked to cultural heritage and planning. From the Harappan and Gangetic civilization planning, to Cholas and Pandiyas, Deccan Kingdoms to Northern planned cities such as Jaipur, to modernized cities such as Gandhinagar, Chandigarh, Bhubaneswar, NOIDA and New Mumbai, the planners of India have made key contributions in shaping them. From this past, India is moving towards the third largest economy in the world, and it is expected that almost 50 percent of its population will be living in urban areas by the 100th Year of India's Independence i.e. by 2047. NITI Aayog (2022) has opined that 'Urbanisation is not only a consequence of faster growth but also an instrument for promoting development through the economies of agglomeration which characterize the cities'. It is not only the plans of urban and rural areas, which are being prepared by the Planners, but there are other stakeholders and implementers who influence the plan implementation process in the country. Hence, planning by itself is a multi-disciplinary subject. Considering this, ITPI, from the beginning, has proposed the planning programmes in various education institutions open to various disciplines such as Architecture, Civil and Traffic Engineering, Economics, Geography, Sociology and Environmental Engineering, which is like MERU (2040) suggested by NEP (2020). In addition, ITPI has been conducting capacity building programmes for the planners at different levels through offline and online planning courses.

National Education Policy (2020) is an eye opener to new avenues to incorporate more multi-disciplinary subjects to planning, such as use of Artificial Intelligence (AI) and Machine Learning (ML), Climate Change, Public Policy, etc. Implementing the guidelines

of NEP is a challenge for ITPI to come out with a programme offering certificate, diploma, and degree at different levels, which can be taken up by the Governments across India, and also by private sector for the recruitment of trained professionals. We assume that a quick fix to urban and rural issues through these certificates will not suffice to address the ground realities. But it will help various stakeholders to understand the planning profession by itself surely.

ITPI, after many months of deliberations with experts from the academics and profession within the country and abroad to implement the guidelines and directives of NEP (2020) and UGC (2022), has come out with a suggestive Policy on Planning Education proposing the Certificate, Diploma, Under-graduate (UG), Post-Graduate (PG) and Ph.D. programmes at various exits options. This Policy Document focuses on Integrated PG programme consisting of 1+2+3+4+5 years i.e. awarding Certificate for exiting the programme after First Year, Diploma for exiting the programme after Second Year, simple UG Degree for exiting the programme after Third Year UG Degree (Honors)/ UG Degree (Honours with Research) for exiting the programme after Fourth Year, and award of PG degree after completing the integrated programme in the Fifth Year. As outlined by the UGC, at each year and semester wise, major and minor courses, valued added courses, and training (limited to certain years) are incorporated in the Proposed Outline Scheme for UG Five Year Integrated Programme with multiple exits. In the Fifth Year of the programme, many options are offered to the students to take up specialised/ advanced courses of their choices. The Outline Scheme proposes to equip the students with the state-of-the-art learnings in Geoinformatics and Data Analytics, Liberal Courses, Value Added Courses, and Advanced Courses so that he/she is able to propose planning, management, implementation and financing strategies to bring the proposals to realities.

ITPI is part of the Commonwealth Association of Planners', and many of our member Institutions such as IIT-Kharagpur, SPAs are linked to International Universities and Institutions for their programmes. It is proposed to encourage all the 75+ Planning Institutions of India to link with these international universities in the field of planning and allied courses, so that planning in India is enriched through their knowledge transfer at the UG, PG, and Ph. D. levels.

The Policy Document also suggests mechanism to integrate planning at School level so that the future of spatial planning is shaped by the youth of the country.

The members of this committee thank ITPI for entrusting the responsibility to this team to prepare the Policy Document to steer the Planning Education in line with the NEP (2020) and UGC (2022) guidelines. This document is just a beginning to propose an integrated multi-disciplinary programme in the field of planning with various entry/ exit options as per the UGC/AICTE guidelines. We at ITPI thank the Ministry of Education, Government of India for steering new avenues in the field of education at all levels with a new thinking.

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1. PRELUDE

The human settlements are experiencing rapid transformations due to the changing socio-economic paradigms, advancements in digital technologies, pandemic conditions, and other challenges faced by them. Rapid urbanization, climate change, ecological imbalances, spatial irrationalities, socio-cultural complications, economic instabilities, environmental disturbances, housing deficiencies, transportation challenges, water supply and sanitary crisis, etc. ask for innovative, advanced, constructive, futuristic spatial planning paradigms to build productive, inclusive, resilient, and sustainable human settlements. The seventeen Sustainable Development Goals (SDGs) address these concerns and have set the targets to achieve them by 2030. The key to achieve these goals and targets is to impart systematic education and advanced knowledge to produce trained manpower to handle the upcoming challenges. India being a signatory is committed to achieve the SDG-4, which seeks to 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all'.

While addressing the dramatic scientific and technological advances, such as the rise of big data, machine learning, and artificial intelligence, the NEP, 2020 envisages the increasing need for skilled workforce having multi-disciplinary abilities. NEP, 2020 advocates that 'education must move towards less content, and more towards learning about how to think critically and solve problems, how to be creative and multi-disciplinary, and how to innovate, adapt, and absorb new material in novel and changing fields.

The Policy proposes to revamp the whole higher education system to 'develop good, thoughtful, well-rounded, and creative individuals who is enabled to study one or more specialized areas of interest at a deeper level, and is able to develop character, ethical and Constitutional values, intellectual curiosity, scientific temper, creativity, spirit of service, and 21st century capabilities across a range of disciplines including sciences, social sciences, arts, humanities, languages, as well as professional, technical, and vocational subjects'. Thus, the Policy intends to create vibrant multi-disciplinary environments in academics and research, high quality teaching and community engagements. It proposes to have

- Imaginative and flexible curricular structure novel and engaging course options;
- Multiple entry and exit points through academic bank of credits (7 years);
- Research-based specialization;
- Academia-government-industry linkage;

- Pedagogical reforms communication, discussion, debate, research, and opportunities for cross- disciplinary and interdisciplinary thinking;
- Value-based education; and
- Industrial Internships and Research Internships.

The Policy proposes that the pedagogy must evolve to make education more experiential, holistic, integrated, inquiry-driven, discovery-oriented, learner-centered, discussion-based, flexible, and, of course, enjoyable. The curriculum must include basic arts, crafts, humanities, games, sports and fitness, languages, literature, culture, and values, in addition to science and mathematics, to develop all aspects and capabilities of learners; and make education more well-rounded, useful, and fulfilling to the learner. Education must build character, enable learners to be ethical, rational, compassionate, and caring, while at the same time prepare them for gainful, fulfilling employment'. The Policy proposes the revision and revamping of all aspects of the education structure through paradigm shift from behaviourism to cognitivism, constructivism and meta-cognitivism i.e. literacy, numeracy, critical thinking and problem solving; teacher centric to learner centric; individual learning to co-operative, collaborative and participatory learning; expository learning to discovery learning; and learning approach to non-linear approach. The pedagogy must evolve to make education more experiential, holistic, integrated, inquiry-driven, discovery-oriented, learner-centred, discussion- based, flexible, and enjoyable. Thus, the NEP, 2020 has envisioned to provide access, equity and quality of education; improving teaching-learning with technology; knowledge creation; innovation eco-system; capacity building and competencies; research out-comes; multi-disciplinary undergraduate education; revamping curriculum, pedagogy, assessment, and student support; online education; open distance learning; state-of-the-art infrastructure and learning materials.

2. EMERGING PLANNING PROFESSION NEEDS AND NEP, 2020 INTERFACE

Rapid urbanization, climate change, livability challenges, infrastructural deficiencies, governance issues, etc. have been bringing the transformations in the planning profession in the 21st century. The NEP, 2020 has come up in an apt time to bring in the reforms by revamping the planning education system in the country. Following are some of the key dimensions addressing the need and requirement to align the existing planning education system to the guidelines of NEP, 2020.

2.1 Challenges and Recommendations for Planning Education

There are certain challenges faced by town and country education in India which need to be addressed. Some of the issues have already been flagged by the NITI Aayog in its Report. In addition, there are certain important impediments, which hamper the advancement of planning education. Some of them are discussed below:

- Multiplicity of agencies dealing with planning education;
- Inadequate faculty and infrastructure in the planning institutes;
- Need to revising recruitment rules;
- Need to revise eligibility conditions for admission to PG Programme in planning;
- Separate Test / Examination for UG Programme;
- · Different nomenclatures of planning programme;
- Curricula revamping;
- · Increasing institutional consultancy; and
- Promoting / encouraging research.

Even the Advisory Committee of NITI Aayog has given following recommendations:

- The history of human settlements in the Indian sub-continent must be taught to all young planners in a manner that can help them draw learnings about planning and management of ancient and medieval human settlements in India.
- The model curricula of PG degree programmes in urban planning has a limited focus on the planning of hilly and coastal regions as well as rural areas. Hilly areas require a distinct way of planning and management anchored on disaster resilience, sustainability, and livelihood creation. In addition to this, there is a dearth of planning professionals specialised in the planning of rural areas. Supply of qualified professionals in these streams needs to be created albeit in a limited way.
- The Central Universities and Technical Institutions in all the States/UTs of the Indian Himalayan Region may be encouraged to establish a 'Department of Planning and Public Policy' and also to offer PG programmes with specializations in 'Hill Area Planning', 'Environmental Planning', 'Regional Planning', and 'Rural Area Planning'. The sustainability and disaster management aspects would be an essential component of the same.

- NIRF does not enlist the 'Planning' domain discipline. Therefore, it is recommended for inclusion of planning as a discipline in NIRF. Planning may be used as an umbrella term, including all its specializations such as environment, housing, transportation, infrastructure, logistics, rural area, regional, etc.
- AICTE has a list of 25 names of courses for PG programmes in planning.
 Therefore, it is recommended that AICTE may retain the names of
 specializations based on industry requirements. Nonetheless, the names
 of the degrees should be limited to only two nomenclatures: Bachelor of
 Planning and Master of Planning, with the specialization in brackets.
- For the growth and development of educational institutions, mentoring by peers is essential, therefore, it is recommended that the institutions in the domain of planning education may identify prominent international and national institutes in various disciplines, and connect with them and sign MoUs for mentoring.
- For ensuring robust and quality teaching staff in planning education institutions a three-fold approach is recommended, as given below:
 - All the faculty in the urban planning domain needs to be motivated and incentivised by the respective institutions for taking part in the 'quality improvement programs'. Relevant international institutes can be roped in for bringing learnings from different contexts.
 - Faculty shortage in the educational institutions for conducting degree and Ph.D. programmes in planning need to be resolved in a time bound manner. In this regard, the faculty recruitment rules, particularly of the centrally funded technical institutions need to be reviewed to identify hurdles, if any, and amending them as per the rules and procedures laid-down.
 - The faculty needs to be encouraged to write and publish technical papers. This needs to be linked with their promotion so that quality improvement can be incentivised.

2.2. Skill Sets of Town and Country Planner

As the implications of urban planning travels beyond urban to rural, tourism, industrial, transport and logistics, regional, environmental, etc., therefore, the skill sets of Town and Country Planners need to encompass various aspects of multiple disciplines such as architecture, economics, environmental science, geography, finance, data analytics, etc. Master Plan / Development Plan essentially involves land allocation for various uses.

Therefore, planners have to arrive at solutions for competing land uses, economic versus environmental considerations, and many other paradoxical situations, which need to be moderated through evidence-based decisions or trade-offs and incorporated in a spatial strategy that is most beneficial to the city, its surroundings, and masses. Therefore, the complexity of the task of city planning is remarkably high; and needs specialist skills as well as awareness. An urban planner is specially trained to possess skills for solving complex multi-sectoral challenges, moderating the competing pressures on land, posed by market forces, environmental considerations, and social needs, and take a balanced view in a citizen-centric approach, and also to work across disciplinary boundaries (Page 16, NIT Aayog Report, 2021).

2.3. Technical and Analytical Role of Town and Country Planner

Various roles of town and country planners include town planning official, technical expert, project manager, advisor, consultant, faculty, etc., (page 15, NITI Aayog Report, 2021). However, some of the key functions of the town and country planners include:

- Preparation of Regional Plans, Master Plans / Development Plans, Zonal Plans, Site Plans, and Local Area Plans;
- Conducting feasibility studies, undertaking surveys, research, analysis, and documentation, detailed project reports, financial modelling, implementation, and monitoring;
- Analysis, drafting, preparation, implementation, and monitoring of spatial plans;
- Conducting research and developing strategies, supporting policies, programmes and key projects of the government at various levels;
- Contributing to the field through research and innovations;
- Developing innovative approaches to solve complex urban and regional challenges pertaining to housing, basic services, and transportation;
- Formulating policies and spatial plans integrating aspects of gender, universal access, climate change, safety and sustainability, etc.;
- Executing techno-legal roles, including building permissions and plan enforcement functions;
- Developing strategies for regional development;
- Developing policy frameworks for climate resilient planning and development/ adaptation of risk information in planning/ energy planning and management;

- Implementing development projects and closely monitoring the impacts for mid-course corrections, if any;
- Engaging actively with different stakeholders;
- Enabling the balance amongst all relevant interests and competing land uses so as to solve conflicting demands on space and development; and
- Engaging with citizens and ensuring effective public participation at various levels of planning processes.

2.4 Planning Schools and Programmes

Though planning activities got enhanced under various Town and Country Planning Acts in some of the provinces / states of India, but only the outright efforts of the Institute of Town Planners, India (ITPI) could convince the government not only to start Town Planning Schools but also to set-up Town and Country Planning Organization at Centre and Town and Country Planning Departments in States. Its initiatives to start UG programme in town and country planning, apart from the specialized PG programmes, could encourage the public and private sector organizations to offer these programmes in planning. At present, the UG and PG programmes of 77 institutes are recognized by the Institute of Town Planners, India. The proposal of the Institute to start 5-year integrated programme in Town and Country Planning leading to UG and PG with option of exit on completion of 4 years with UG degree has already been introduced in School of Planning and Architecture, New Delhi and Institute of Architecture and Planning, NIRMA University, Ahmedabad. The consistent promotion of planning profession by the Institute has made the planners vital in public, private or education sectors.

3. STRUCTURE OF THE COURSE CURRICULUM AS PER NEP, 2020

The Policy proposes to develop vocational, professional, critical/responsive thinking, and ethical skills to attain skills enhancement, ability enhancement, multi-disciplinarity, and value based education. It suggests inclusion of the following courses in the course curriculum leading to UG / PG degree. It proposes.

- Foundation Courses to have the basic knowledge of the discipline under study.
- Professional Courses to have comprehensive knowledge and coherent understanding of the discipline under study.
- Interdisciplinary Courses to ensure the development of capabilities across a range of disciplines including sciences, social sciences, arts, humanities, languages, as well as vocational subjects.

- Environment Education Courses to include areas such as climate change, pollution, waste management, sanitation, conservation of biological diversity, management of biological resources and biodiversity, forest and wildlife conservation, and sustainable development and living.
- Value Added Courses to include the development of humanistic, ethical, Constitutional, and universal human values of truth, righteous conduct, peace, love, non-violence, scientific temper, citizenship values, and life skills.
- **Community Engagement and Service** to include lessons in service and participation in community service programs.
- Global Citizenship Education and Education for Sustainable Development
 to form an integral part of the curriculum to empower learners to become
 aware of and understand global and sustainable development issues and
 to become active promoters of more peaceful, tolerant, inclusive, secure,
 and sustainable societies.
- **Digital and Technological Skills** to equip the students in the cutting-edge areas such as Artificial Intelligence (AI), 3-D machining, big data analysis, and machine learning.
- **Studio Activities** to engage the students in creative or artistic activities or experiential work.
- **Field Practice/ Projects** to engage the students to participate in field-based learning/ projects generally under the supervision of an expert.
- Internship/Research Internship to provide the students with opportunities
 for internships with local industry, businesses, artists, crafts persons, etc.,
 as well as research internships with faculty and researchers at their own
 or other HEIs/research institutions, so that students may actively engage
 with the practical side of their learning and, as a by-product, further
 improve their employability.
- Research to develop 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.

The Policy proposes 3 or 4 years multi-disciplinary multiple entry and exit options UG programme allowing to experience full range of holistic and multi-disciplinary education in addition to a focus on the chosen major and minors as per the choices of the students.

3.1 Eligibility Conditions for UG/ PG and PH.D. Programmes

- UG/ PG (Five Years Integrated) Programme: All candidates having passed Senior Secondary Examination (12th grade) with Mathematics and English with at least 50% marks (45% for SC/ST) in aggregate are eligible for the programme.
- a. Standalone PG (Two Years) Programme: All candidates having passed Bachelor's Degree in Urban & Regional Planning/ Architecture/ Civil Engineering with at least 50% marks (45% for SC/ST) in aggregate OR Master's Degree in Geography/ Sociology/ Economics with at least 50% marks (45% for SC/ST) in aggregate are eligible for the programme.
- b. However, ITPI feels that PG programmes should be made more multidisciplinary. Therefore, it proposes to include other disciplines eligible for admission to specialised planning programmes after deliberations with the experts.
- c. Ph.D. Programme: UGC has proposed that all candidates having a PG degree or 5-year integrated PG degree or a 4-year UG degree with research (having scored 75% marks or CGPA 7.5) shall be eligible to undertake Ph.D. programme in the major discipline. But such students must possess PG degree, either Five Years Integrated Programme PG Programme or Standalone PG Programme, before joining the Ph.D. Programme through institutional level entrance test or national level eligibility tests such as UGC NET or GATE.

3.2 Awarding Certificate, Diploma, and Degrees for UG Programme Following awards and exits are proposed by the University Grants Commission through its publication 'Curriculum and Credit Framework for Undergraduate Programmes, 2022'.

- a. UG Certificate: Students who opt to exit after completion of the first year and have secured 40 credits will be awarded a UG certificate if, in addition, they complete internship/ research internship of 4 credits during the summer vacation of the first year. These students are allowed to re-enter the degree programme within three years and complete the degree programme within the stipulated maximum period of seven years.
- b. UG Diploma: Students who opt to exit after completion of the second year and have secured 80 credits will be awarded the UG diploma if, in addition, they complete internship/research internship of 4 credits during the summer vacation of the second year. These students are allowed to re-enter the programme within a period of three years and complete it within maximum period of seven years.

- c. 3-year UG Degree Programme: Students who wish to undergo a 3-year UG programme will be awarded UG Degree in the major discipline after successful completion of three years, securing 120 credits and satisfying the minimum credit requirement. Such candidates need to complete internship/research internship of 4 credits during the summer vacation of the second/third year, which is evaluated in the third year.
- d. 4-year UG Degree (Honours) Programme: A four-year UG (Honours) degree in the major discipline will be awarded to those students who complete a four-year degree programme with 160 credits. Such candidates need to complete internship/ research internship of 4 credits during the summer vacation of the third/ fourth year.
- e. 4-year UG Degree (Honours with Research) Programme: Students who secure 75% marks (CGPA 7.5) and above in the first six semesters of the programme and wish to undertake research at the UG level can choose a research stream in the fourth year. They should do a research project/ dissertation under the guidance of a faculty member of the University/ College. The research project/ dissertation will be in the major discipline. The students who secure 160 credits, including 12 credits from a research project/ dissertation, are awarded UG Degree (Honours with Research). Such candidates need to complete internship/ research internship of 4 credits during the summer vacation of the third/ fourth year, which is evaluated in the fourth year.

3.3 Awarding Post-graduate (PG) and Doctor of Philosophy (Ph.D.) Degrees

The Higher Education Institutions will have the flexibility to offer different designs of Master's programmes with following options.

- a. Standalone 2-year PG Degree Programme in major discipline for those who have completed the 3 years UG programme and for the later entry from the other eligible disciplines. All the students shall have to complete the research (thesis) in the second year of the programme.
- b. 1-year PG Programme in major discipline, leading to 5-year integrate PG programme, for those students who secure 75% marks (CGPA 7.5) and above in aggregate till the eight semesters of the UG programme in the major discipline with research. All the students shall have to complete the research (thesis) in this year i.e. fifth year of the programme. Such candidates will be awarded a five-year PG integrated degree in the major discipline on successfully attaining 200 credits after the completion of the five years or maximum seven years. Such candidates need to complete

internship/ research internship of 4 credits during the summer vacation of the fourth year, which is evaluated in the fifth year.

The Universities/ Colleges offering a 4-year UG degree programme (Honours with Research) or 5-year PG degree programme in the major discipline must have the required infrastructure such as the library, access to journals/e-journals/e-books, computer lab and software, laboratory facilities to carry out experimental research work, and at least two permanent faculty members who are recognized as Ph.D. supervisors.

4. UG PROGRAMME STRUCTURE AND CREDIT REQUIREMENT

The UGC has proposed the structure of UG programme in the higher education institutions. Table 1 shows the year wise credit system for courses to be offered in UG programme considering core courses, elective courses, Ability Enhancement Courses (AEC) and Skill Enhancement Courses (SEC) respectively.

Table 1: Proposed Structure of UG Programme by UGC

Semester	Discipline Specific Courses - Major (Core)	Minor	Inter- Disciplinary/ Multi-Disciplinary Courses	Ability Enhancement Courses (Language)	Skill Enhancement Courses /Internship /Dissertation	Common Value- Added Courses	Total Credits
ı	(100	(100	(1 course)	(1	(1 course)	(1 or 2	20
	level)	Level)		course)		courses)	
Ш	(100	(100	(1 course)	(1	(1 course)	(1 or 2	20
	level)	Level)		course)		courses)	
	awarded they sect summer	d UG Certi ure 4 crec term or	ificate in the lits in work b internship/ A	relevant [ased vocat apprentices	securing 40 cre Discipline /Sub tional courses Ship in addition first and secon	ject provided offered during n to 6 credits	40
Ш	(200	(200 &	(1 course)	(1	(1 course)	-	20
	level)	above)		course)			
IV	(200	(200 &	-	(1	-		20
	level)	above)		course)			
		_			securing 80 cre		
						provided they	80
	secure ad	ditional 4	credit in ski	ll based vo	cational cours	es offered dur-	
		ing fi	rst year or se	econd year	summer term	•	

V	(300	(200 &	-	-	(Internship)	-	20		
V	Level)	above)					20		
VI	(300	(200 &	-	-	-	-	20		
٧١	Level)	above)					20		
	Students who want to undertake 3 years UG programme will be awarded								
	UG Degre	e in the re	elevant Discip	oline /Subj	ject upon secur	ring 120 credits	120		
VII	(400	(300 &	-		-	-	20		
VII	Level)	above)					20		
	(400	(300 &	-		(Research				
VIII	Level)	above)			Project/ Dis-		20		
					sertation)				
	Students	will be av	varded UG De	gree (Hono	ours with Resear	rch) in the rel-	160		
			eva	nt disciplin	е		100		

Source: Curriculum and Credit Framework for Undergraduate Programmes, University Grants Commission, New Delhi, 2022.

The minimum credits requirements for different categories of courses for 3-year UG and 4-year UG (Honours) or UG (Honours with Research) programmes as proposed by UGC are presented in table 2. In the light of the NEP, 2020 and proposed structure of UGC, the total number of credits earned out of four year UG programme have been proposed to be 160 @ 40 credits per year.

Table 2: Minimum Credit Requirements to Award Degree under each Category by UGC

S.	Broad Category of Course	Minimum Credit Requiren			
No.		3-Year UG	4-Year UG		
1	Major (Core)	60	80		
2	Minor Stream	24	32		
3	Multi-disciplinary	09	09		
4	Ability Enhancement Courses (AEC)	08	08		
5	Skill Enhancement Courses (SEC)	09	09		
6	Value Added Courses common for all UG	06 - 08	06 - 08		
7	Summer Internship	02 - 04	02 - 04		
8	Research Project / Dissertation	-	12		
Total		120	160		

Note: Honours students not undertaking research will do 3 courses for 12 credits in lieu of a research project/ Dissertation.

Source: Curriculum and Credit Framework for Undergraduate Programmes, University Grants Commission, New Delhi, 2022.

4.1 Conceptualization of Programme Structure for UG/ PG in Planning

The NEP, 2020 proposes for 3 or 4-year undergraduate degree programmes. It gives liberty to start the five years integrated PG programme in different streams. The model presented in figure 1 is proposed for the Planning Discipline, which is not only integrated but also provides opportunity to the students to avail specialization at the PG level.

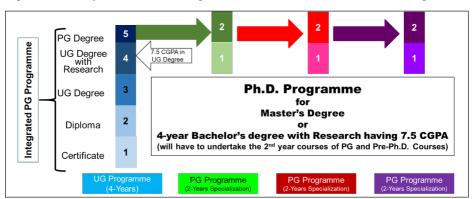


Fig. 1: Conceptualization of Programme Structure fof UG/ PG in Planning

The model complies with different exit plans as proposed by the NEP, 2020. As the candidate successfully passes all the courses of the first year, if a candidate opts to quit then after completing his/ her internship for 8 weeks he/ she shall be awarded with UG Certificate in Planning. If the candidate continues to the second year, then he/ she will be required to do the internship in the subsequent year. Similarly, after successfully passing all the courses of the second year, if a candidate opts to quit then after completing his/ her internship for 8 weeks he/ she shall be awarded with UG Diploma in Planning. But if he/ she continues for the 3-years degree programme, then he/ she will be completing his/ her internship in the third year. After successfully completing all the course work of the third year the candidate shall be allowed to exit. He/ she shall be awarded UG degree in Planning. Such candidates will be eligible for the specialized 2-years PG programmes.

However, as per the guidelines of the UGC, the candidates securing 75 percent marks or 7.5 CGPA at the 3-years degree level shall be allowed to proceed for the 4-year UG programme. Accordingly, such candidates shall be admitted to the 4-year UG degree programme in planning and will complete

their degree by undertaking a research dissertation in the eighth semester. After successful completion of 4-years courses, the candidate shall be awarded the UG degree in Planning (Honours with Research). After 4-years, these candidates can opt for the second year of a specialized stream of the PG programme of the institute and shall be awarded PG degree in Planning with specialization.

As per the guidelines of the University Grants Commission, if any candidate attains a CGPA of 7.5 after the 4-years UG programme, he/ she shall be eligible for the Ph.D. programmes of the higher education institutions. But such candidates will have to complete 1-year courses of the PG programme and then the Pre-Ph.D. courses later on.

4.2. Suggestive Five-Year Integrated PG Programme in Planning

ITPI proposes the courses to be undertaken in different semesters as per table 3. These are suggestive and may undergo changes based on the need and availability of experts within the institutes offering UG programme courses.

Table 3: Programme Structure and Credit System for PG (FYIP) in Planning

	First Semester					
70	Course Title	Nature	Credits	L	Т	U
	History of Settlement and Planning	3	2	1	0	
	Techniques of Planning	Minor	2	2	0	0
	Social-cultural and Economic Aspects of Settlements	MD	3	2	1	0
Planning	Environmental Studies	VA	3	2	1	0
lan	Qualitative and Quantitative Methods of Planning	SE	3	2	1	0
in P	Local Area Language	AE	2	2	0	0
Certificate i	Planning Studio - Map Graphics and Presentation Techniques	Major	4	0	0	8
rtifi	Total Credits		20			
UG Cert	Summer Internship (to be undertaken during the summer vocations for 8 weeks after the first semester by the student who opts to exit after the 2^{nd} semester. Its credits will be added over and above the total credits of the 2^{nd} semester)	SE	4	0	0	8
	Second Semester					
	Course Title	Nature	Credits	L	Т	U
	Fundamentals of Planning	Major	3	2	1	0

Surveying	Minor	2	2	0	0
Fundamentals of Architectural Design	MD	3	2	1	0
Human Rights and Constitutional Duties	VA	3	2	1	0
Introduction to GIS and Computer Fundamental	SE	3	0	0	6
Communication and Writing Skills	ΑE	2	2	0	0
Planning Studio - Area Appreciation (Urban and Rural)	Major	4	0	0	8
Total Credits		20			

	Course Title	Nature	a 11.							
			Credits	L	Т	U				
	Planning Theory	Major	3	2	1	0				
	Planning for Utilities	Minor	2	2	0	0				
	Site and Land Development	Minor	2	2	0	0				
	Geographic Basis in Planning	MD	3	2	1	0				
	Basics of Information Technology and Programming	SE	3	2	1	0				
	Liberal Learning Courses	AE	2	2	0	0				
20	Planning Studio- Site Planning	Major	5	0	0	10				
inni	Total Credits		20							
iploma in	Summer Internship (to be undertaken during the summer vocations for 8 weeks after the third semester by the student who opts to exit after the fourth semester. Its credits will be added over and above the total credits of the fourth semester)	SE	4	0	0	8				
) 5	Fourth Semester									
	Course Title	Nature	Credits	L	Т	U				
	Transportation Planning - I	Major	3	2	1	0				
	Housing	Major	3	2	1	0				
	Landscape, Ecology and Resource Planning	Minor	2	2	0	0				
	Geoinformatics and Data Analytics	Minor	2	2	0	0				
	History and Culture of Local Area	AE	2	2	0	0				
	Planning Studio- Village / Zonal Development Plan	Major	8	0	2	12				
	Total Credits	20								

	Fifth Semester									
	Course Title	Nature	Credits	L	Т	U				
	Transportation Planning - II	Major	3	2	1	0				
	Regional Planning	Major	3	2	1	0				
ing)	Land Economics and Real Estate Management	Minor	2	2	0	0				
ann	City Design and Aesthetics	Minor	2	2	0	0				
UG Degree (Planning)	Climate Change and Sustainable Development/ Disaster Management	Minor	2	2	0	0				
Degi	Planning Studio- Master Plan/ Development Plan	Major	8	0	2	12				
150	Total Credits		20							
	Summer Internship (to be undertaken during the summer vocations for 8 weeks after the fifth semester by the student who opts to exit after the sixth semester. Its credits will be added over and above the total credits of the sixth semester.)	SE	4	0	0	8				
	Sixth Semester									
	JIXIII Jelliestei									
	Course Title	Nature	Credits	L	Т	U				
		Nature Major	Credits 3	L 2	T 1	U				
	Course Title	.,		_	H-	_				
	Course Title Planning Legislation	Major	3	2	1	0				
	Course Title Planning Legislation Rural Habitat Planning	Major Major	3	2	1	0				
	Course Title Planning Legislation Rural Habitat Planning Governance and Plan Implementation	Major Major Minor	3 3 2	2 2 2	1 1 0	0 0				
	Course Title Planning Legislation Rural Habitat Planning Governance and Plan Implementation Estimation, Specification and Valuation Planning for Informal Sector/ Planning for	Major Major Minor Minor	3 3 2 2	2 2 2 2	1 1 0 0	0 0 0				
	Course Title Planning Legislation Rural Habitat Planning Governance and Plan Implementation Estimation, Specification and Valuation Planning for Informal Sector/ Planning for Special Areas	Major Major Minor Minor	3 3 2 2 2	2 2 2 2	1 1 0 0	0 0 0 0 0				

Note: Lateral entry for the candidates having 3-year UG programme in planning from other planning institutes will be permitted in the 4th year of the Five Year Integrated Programme as per the regulations of the admitting institute. Such candidates will have to undertake the value added courses (VAC) over and above the credits of 4th and 5th years taken together, if these candidates had not successfully completed

the required VAC in their previous institutes.

	Seventh Semest	er				
	Course Title	Nature	Credits	L	Т	U
	Research Methods	Major	3	2	1	0
	Project Formulation, Appraisal and Management	Major	3	2	1	0
Planning	Environment Planning/ Urban and Regional Infrastructure Planning (to include digital service delivery)	Minor	2	2	0	0
Pla	Development Finance	Minor	2	2	0	0
Degree in	Dissertation Preliminaries/ Case Study Seminar (for students who do not opt or are not offered dissertation)	Minor	2	0	2	0
OUG	Planning Studio - Detailed Project Report/ Feasibility Study	Major	8	0	2	12
	Summer Internship (to be undertaken during the summer vocations for 8 weeks after the seventh semester by the student who opts for FYIP. Its credits will be added over and above the total credits of the eighth semester)	SE	4	0	0	8
	Total Credits		20			

(Honours)	Eighth Semester Option - I (for students opting for exit after fourth years without undertaking Dissertation)									
Нол	Course Title	Nature	Credits	L	Т	U				
_	Professional Practice and Ethics	Major	3	2	1	0				
in Planning	Public Policy	Major	3	2	1	0				
in P	Urban Supply Chain Management	Minor	2	2	1	0				
Degree	Heritage and Conservation for Special Areas	Minor	2	2	0	0				
	Politics, Planning and Development	Minor	2	2	0	0				
9n	Planning Studio - Planning Projects	Major	8	0	2	10				
	Total Credits		20							

(Honours with Re- search)	Eighth Sen Option - II (for the students opting exi Dissertat	it after fo	ur years by	y und	lertal	king
s wi	Course Title	Nature	Credits	L	Т	U
ch)	Professional Practice and Ethics	Major	3	2	1	0
	Public Policy	Major	3	2	1	0
UG Degree	Heritage and Conservation for Special Areas	Minor	2	2	0	0
NG I	Planning Studio - Planning Dissertation	Major	12	0	5	14
	Total Credits		20			

	Eighth Semes Option - III (for the students continuing gramme)		ear Integr	ated	Pro-	
(par	Course Title	Nature	Credits	L	Т	U
(Continued)	Professional Practice and Ethics	Major	3	2	1	0
_	Public Policy	Major	3	2	1	0
Degree	Urban Supply Chain Management	Minor	2	2	1	0
	Heritage and Conservation for Special Areas	Minor	2	2	0	0
ng	Politics, Planning and Development	Minor	2	2	0	0
	Planning Studio - Special Area Plans	Major	8	0	2	10
	Total Credits		20			

Note:

Lateral entry for the candidates having 4-year UG programme in planning from other planning institutes will be permitted in the $5^{\rm th}$ year of the Five Year Integrated Programme as per the regulations of the admitting institute. Such candidates will have to undertake the value added courses (VAC) over and above the $5^{\rm th}$ year's credits, if these candidates had not successfully completed the required VAC in their previous institutes.

By adopting the proposed scheme of ITPI, the details of the total credits actually attained after the completion of third and fourth years of UG Programme compared to the prescribed as in table 2 are presented in table 4.

Table 4: Minimum Credit Requirements to Award Degree under each Category by UGC

S.	Broad Category of		٨	Minimum	inimum Credit Requirement						
No.	Course	3-Year	- UG		4-Year UG						
		UGC	ITPI	UGC		ITPI					
					UG (Honours)	UG (Honours with Research)	UG (Continued for FYIP)				
1	Major (Core)	60	64	80	94	84	94				
2	Minor Stream	24	24	32	34	32	34				
3	Multi-disciplinary	09	9	09	9	9	9				
4	Ability Enhancement Courses (AEC)	08	8	08	8	8	8				
5	Skill Enhancement Courses (SEC)	09	9	09	9	9	9				
6	Value Added Courses common for all UG	06 - 08	6	06 - 08	6	6	6				
8	Research Project / Dissertation	-	-	12	-	12	-				
Tota	l	120	120	160	160	160	160				
8	Summer Internship	02 - 04	4*	02 - 04	4*	4*	4*				

For the Five Year Integrated Programme the outline scheme shall be as presented in table 5.

Table 5: Outline Scheme for Ninth and Tenth Semester for Institutions having Specialized Planning Programme at the PG Level

Assistant Town Planner with 2 advance increments responsible for supervising all the works of the above personnels and responsible for policy formulation and to act in-charge for a District Planning

Ninth Semester

The student will pick the courses from the Third Semester of Specialize PG Programmes in Planning

Tenth Semester

The student will pick the courses from the Fourth Semester of Specialize PG Programmes in Planning.

Each student will do thesis in the respective specialization

Note: The institutions may create their own basket of courses if they don't have any specialized programme at the PG level.

Alternatively, table 6 presents the model outline scheme for the institutions which do not have specialized PG programmes in Planning.

Table 6: Alternative Suggestive Outline Structure of Ninth and Tenth Semesters for PG (FYIP) Programme for the Institutions not having Specialized PG Programmes

		Ninth Semester					
		Course Title	Nature	Credits	L	Т	U
		Smart Cities	Major	3	2	1	0
		Technology and Sustainable Cities	Minor	2	2	0	0
(FYIP)		Inclusive Cities	Minor	2	2	0	0
F		Spatial Data Analytics	Minor	2	4	2	0
PG		Energy Management	Minor	2	4	2	0
		Planning Studio - Planning Projects	Major	7	0	2	10
		Internship (Optional)	Audit				
		Total Credits		20			

	Tenth Semester					
	Course Title	Nature	Credits	L	Т	U
	Modelling Urban Dynamics	Major	3	2	1	0
(FYIP)	Climate Resilient Cities	Major	3	2	1	0
PG (I	Economic Policy and Local	Minor	2	2	0	0
۵	Development					
	Planning Studio - Planning Thesis	Major	12	0	5	14
	Total Credits		20			

However, few more courses as a basket major or minor specialized courses in the planning discipline are suggested such as

- Crowd Sourced City
- Planning Mega Urban Regions
- Secure and Safe Cities
- Healthy Cities
- Carbon Systems and Management
- Environmental/ Ecological Economics
- Any Other Courses on Emerging Aspects of Planning

5. PROGRAMME OBJECTIVES, OUTCOMES AND COMPETENCIES

The general objective of the 3-year, 4-year and 5-year programme in Planning is to produce highly skilled professionals specializing in urban planning/ infrastructure planning/ transport planning/ regional planning/ housing/ etc. to be eligible to undertake policy and/or project matters in the public and private sector organizations. The graduates will understand the significance of planning in development of human settlements. The programme aims to explain planning paradigms and their applications and will be able to apply basic planning methods and techniques to organize, analyze, interpret and present different aspects of urban and regional planning. They will be able to handle urbanization, housing, transport, infrastructure and planning matters in the urban and regional settings in an integrated manner based upon the advanced skills acquired by them. These professionals will have full knowledge for the theories and practices of planning discipline at the urban, rural and regional levels. Upon completion of the respective programmes, they shall be equipped with the following learning outcomes:

- Understand the significance of planning and development;
- Explain major urban planning paradigms and their applications;
- Articulate processes leading to urbanization and rationales for planned interventions;
- Apply planning methods and techniques to organize, analyze, interpret and present information;
- Critically and creatively develop planning inquiries or processes to foster solutions-oriented decision-making;
- Effectively collaborate as a planning team to work with a client and/or stakeholders to assess and address a relevant urban planning problem to create a plan or professional report;
- Effectively present oral and written work (as a plan, professional report, or research paper) in a comprehensible, persuasive and professional manner;
- Have sufficient understanding of the legal and institutional framework for urban planning in the country and effectively undertake urban planning related regulatory activities guided by appropriate regulatory guidelines towards achieving balanced and sustainable development of Indian towns/ cities, villages and regions;

- Appreciate the basic nature and characteristics of urban planning as a
 public service and the potential role to be played by the private sector in
 delivering planning and development services; and
- Develop vocational skills, professional ethics and critical/ responsive thinking in planning the human settlements and built environment.

5.1 Proposed Placement Avenues at Different Levels of the Programmes ITPI suggests the following (table 7) placement avenues after successfully completing the UG/ PG Programmes with multiple entry and exit options as per the provisions of NEP, 2020 and UGC guidelines.

Table 7: Suggestive Placement Avenues at Different Levels of the Programmes

Title of Award	Job Title	Job Responsibilities
UG Certificate	Industry	Responsible for Map Drafting
	Planning Draftsman	etc. with the help of Planning
		Assistant.
	Academics	Helping in conducting surveys
	Surveyor	for research projects.
UG Diploma	Industry	Collection of socio-economic
	Planning Assistant	data and preparation of maps
		etc. under the guidance of Junior
		Town Planner.
	Academics	Assisting in data collection
	Research Assistant	and its analysis under the
		supervision of the Principal
		Researcher.
UG Degree	Industry	Supervision of the works of
	Senior Planning	Planning Assistants.
	Assistant	
	Academics	Assisting in data collection,
	Senior Research	analysis, and report writing under
	Assistant	the supervision of the Principal
		Researcher.
UG Degree (Honours)	Industry	Supervision of works of PAs and
UG Degree (Honours with	Assistant Town Planner	
Research)		after thorough analysis.
	Academics	Assisting in analysis, report
	Research Associate	writing and maintenance of lab
		under the supervision of the
		Principal Researcher.

Integrated PG Degree	Industry	Supervision of works of Planning
	Assistant Town Planner	Draftsman, Planning Assistant,
Standalone Two-Year PG		and Junior Town planner along
Degree		with responsibility for policy
		formulation.
	Academics	Teaching and research
	Assistant Professor	

Note: Industry means government/ public sector/ para-statal/ private institution

6. CREDIT ALLOCATIONS

In accordance with the NEP, 2020, the UGC has proposed a new student-centric "Curriculum and Credit Framework for Undergraduate Programmes (CCFUP)" incorporating a flexible choice-based credit system, multi-disciplinary approach, and multiple entry and exit options. This will facilitate students to pursue their career path by choosing the subject/field of their interest. The new curriculum framework will have the following features:

- Flexibility to move from one discipline of study to another;
- Opportunity for learners to choose the courses of their interest in all disciplines;
- Facilitating multiple entry and exit options with UG certificate/ UG diploma/ or degree depending upon the number of credits secured;
- Flexibility for learners to move from one institution to another to enable them to have multi and/or interdisciplinary learning; and
- Flexibility to switch to alternative modes of learning (offline, ODL, and online learning, and hybrid modes of learning).

6.1. Duration of the Programme

A semester comprises 90 working days and an academic year is divided into two semesters. A summer term is for eight weeks during summer vacation. Internship/ research internship can be carried out during the summer term, especially by students who wish to exit after two semesters or four semesters of study. Regular courses may also be offered during the summer on a fast-track mode to enable students to do additional credits or to complete the backlogs in course work. The Higher Education Institutions can decide on the courses to be offered in the summer term depending on the availability of faculty and the number of students.

6.2 Credit Hours

The workload relating to a course is measured in terms of credit hours. A credit is a unit by which the coursework is measured. It determines the number of hours of instruction required per week over the duration of a semester (minimum 16 weeks). Each course may have only a lecture component or a lecture and tutorial component or a lecture and practicum component or a lecture, tutorial, and practicum component, or only practicum component. For example, a three-credit lecture course in a semester means three one-hour lectures per week with each one-hour lecture counted as one credit. In a semester of 16 weeks duration, a three-credit lecture course is equivalent to 48 hours of teaching.

One credit for tutorial work means one hour of engagement per week. In a semester of 16 weeks duration, a one-credit tutorial in a course is equivalent to 16 hours of engagement. A one-credit course in practicum or lab work, community engagement and services, and fieldwork in a semester mean two-hour engagement per week. In a semester of 16 weeks duration, a one-credit practicum in a course is equivalent to 30 hours of engagement. A one-credit of seminar or internship or studio activities or field practice/ projects or community engagement and service means two-hour engagements per week. Accordingly, in a semester of 16 weeks duration, one credit in these courses is equivalent to 30 hours of engagement

A course can have a combination of lecture credits, tutorial credits, and practicum credits. For example, a 4-credit course with three credits assigned for lectures and one credit for practicum shall have three 1-hour lectures per week and one 2-hour duration field-based learning/project or lab work, or workshop activities per week. In a semester of 16 weeks duration, a 4-credit course is equivalent to 48 hours of lectures and 30 hours of practicum. Similarly, a 4-credit course with 3-credits assigned for lectures and one credit for tutorial shall have three 1-hour lectures per week and one 1-hour tutorial per week. In a semester of 16 weeks duration, a four-credit course is equivalent to 48 hours of lectures and 15 hours of tutorials.

The following types of courses/activities constitute the programmes of study. Each of them will require a specific number of hours of teaching/guidance and laboratory/studio/workshop activities, field-based learning/projects, internships, and community engagement and service.

Lecture Courses: Courses involving lectures relating to a field or discipline by an expert or qualified personnel in a field of learning, work/vocation or professional practice.

Tutorial Courses: Courses involving problem-solving and discussions relating to a field or discipline under the guidance of qualified personnel in a field of learning, work/vocation, or professional practice.

Laboratory Work: A course requiring students to participate in a project or practical or lab activity that applies previously learned/studied principles/ theory related to the chosen field of learning, work/vocation, or professional practice under the supervision of an expert or qualified individual in the field of learning, work/vocation or professional practice.

Internship: A course requiring students to participate in a professional activity or work experience, or cooperative education activity with an entity external to the education institution, normally under the supervision of an expert of the given external entity. A key aspect of the internship is induction into actual work situations. Internships involve working with local industry, government or private organizations, business organizations, artists, crafts persons, and similar entities to provide opportunities for students to actively engage in onsite experiential learning.

6.3 Proposed Credit System

Examinations will be conducted regularly at the end of each semester, i.e. two times in each academic year.

- a. Each course is assigned certain credits, as provided in the syllabus and Scheme of Examination.
- b. Credits assigned to a subject shall be equal to the required hours of study per week, in any mode of instruction. One hour of study of a course per week in a semester shall normally be assign one credit.
- c. A student shall earn the assigned credits upon achieving the minimum grade required for passing a course, i.e. grade 'D'.
- d. A student shall have to earn the required number of credits from the courses specified to successfully complete an academic programme. These shall be classified as Credit Courses.
- A student shall have the option of studying certain other courses whose credits shall not be counted towards the total credits required for successfully completing an academic programme. These shall be classified as Audit Courses.

6.4 Grades and Grade Points

At the end of every semester, the sum total of numerical marks obtained by the student in the Internal Assessment and/or External Examination of subject shall be converted to Letter Grades as per Absolute Grading Classification. For each Letter Grade, the equivalent Numerical Grade Points shall be as per the table 8.

Table 8: Letter Grade and the Equivalent Numerical Grade Points

Percentage Marks	Marks Interval (%)	Grade	Grade Point
Equal to or more than 85%	To be adopted	O (Outstanding)	10
Equal to or more than 80%, but less than 85%	as per the regulations	A+ (Excellent)	9
Equal to or more than 70% but less than 80 %	of the respective	A (Very Good)	8
Equal to or more than 60% but less than 70%	planning institute.	B+ (Good)	7
Equal to or more than and 50% but less than 60%		B (Above Average)	6
Equal to or more than 45% but less than 50%		C (Average)	5
Equal to or more than 40% but less than 45%		D (Pass)	4
Less than 40%		F (Fail)	0
Absent		I (Incomplete)	0

Source: Curriculum and Credit Framework for Undergraduate Programmes, University Grants Commission, New Delhi, 2022.

6.5 Transfer of Credits

In order to facilitate transfer of credits across institutions a uniform system of evaluation in terms of CGPA based on students' performance in examinations will have to be evolved as proposed in the earlier sections. Such a proposal shall benefits students to move across institutions within India and across countries. The uniform grading system will also enable potential employers in assessing the performance of the candidates.

The following broad guidelines for transfer credits are proposed:

a. Credit will not be granted for experiential learning, career, vocational courses and audit courses wherever applicable.

- b. Students cannot earn duplicate credit for repeated courses.
- c. Transfer of credits shall be permissible for courses offered by NPTEL/ distance learning/E-learning sources. The respective institutes may decide the limits of credits to be transferred from such courses.
- d. The transfer of credits shall be permissible across institutions within country between following institutes
 - i. Across all planning schools whose undergraduate degree is recognized by ITPI
 - ii. Across all institutes of technology (IIT and NIT's) whose planning degrees are recognized by ITPI
 - iii. The transfer of credits shall be permissible between institutions offering UG programme and overseas institutions offering courses in planning which are recognized by ITPI.

7. NETWORKING OF PLANNING SCHOOLS FOR CREDIT TRANSFERS

NEP, 2020 looks for Academic Bank for Credits, which can be within the institution or amongst the other institutions /universities. This is a good chance for planning institutions to integrate many courses across various specialised disciplines as well as with other institutions/ universities within India and also with leading institutions abroad. Some of the planning institutions such as CEPT (Ahmedabad), IIT -Kharagpur, SPA -Delhi etc. allows the students to have credits from universities abroad. But except in the case of Ph.D. programme, the progress for obtaining credit at UG or PG level within institutions has been slow amongst Planning Institutions in the country. ITPI as an apex body of professional planners and planning education is to steer innovation in the field of planning and to bring in changes for the future. ITPI proposes that all the planning institutions must initiate the academic bank system as proposed by NEP and by UGC. Towards this idea, the current section gives an outline for bringing in Academic Credits across planning institutions. ITPI suggests the planning universities/ institutions to work on the cost/funding of each of the credit they generate so that it is easier for students to obtain innovative basket from across institutions at all levels i.e. from UG to Ph.D. level.

7.1 UG Level Academic Credit

The various sections outlined in this report reveal the possibilities of addressing UG level courses about entry and exit stages. These sections also inform the subjects that are offered from stage 1 to stage 10 (to be read as semesters). The need is to explain about the subjects that can be obtained academic credits from within the registered institution and outside the institution. As

planning courses are inter/ multi-disciplinary in nature, it is suggested by ITPI that students may explore other disciplines outside their universities. For example, public policy, socio-cultural courses or research methodology can be obtained from across other universities and also from MOOC or online courses. A selection of subjects for each semester is presented in the Annexure - A. However, this is restricted to theory subjects and internships within India. It is suggested that the planning institutions should explore possibilities of carrying out internships abroad. Also, they should explore possibilities of collaborative research projects within India and abroad.

It is also suggested by ITPI that the list of courses given earlier are limited but each institution may come out with new courses with the option for getting credit transfers depending upon the focus of the planning institutions. For example, if an institution/ university focus on AI/ MI or advanced remote sensing tools, it may accordingly adjust the subjects for obtaining credit transfers from external institutions. However, the total credit for each of the semester and for the overall UG courses may be maximum as recommended by UGC. If the number exceeds then over and above courses may be treated as audit courses instead of adding it to total credits. It is also recommended that some of these subjects from outside may also be introduced through MOOC/ODL mode.

7.2 Master's Level Academic Credit

At Master's level, usually many of the leading universities/ institutions keep the first semester inter-disciplinary covering many of the subjects of planning. Similarly, some of the universities/ institutions allow the optional subjects to be obtained from other departments within the institutions. In many cases these optional ones are restricted. ITPI suggests the planning institutions to open up these optional and new disciplines to external universities/ institutions within India. ITPI permits all the disciplines within planning institutions such as Urban, Regional, Transport, Housing, Environment, Infrastructure, etc. Considering this, the planning institutions/ universities may explore having a basket of subjects keeping a minimum number in one discipline (say 10 out of 20 subjects) and open up other subjects to other departments and other universities. Some of the courses can be on MOOC too.

It is also suggested that planning institutions should allow the students to obtain credits for internships from abroad and also to explore thesis abroad. ITPI also recommend the planning institutions, to go for joint studio programmes among planning institutions within India and universities abroad, where each of the institution sign a MoU. This will increase the quality of planners in the long run.

As a part of the Commonwealth Planning Association, ITPI is also trying to explore whether the Master's programme from Commonwealth Universities can be brought on one platform. ITPI suggests the Ministry of Higher Education (MoE) and UGC to come out with a modified policy as in the case of medical institutions for obtaining degrees abroad for Planning too.

7.3 Ph.D. Programme

Some of the planning institutions/universities allow the first compulsory Research Methods programme (as suggested by UGC) to take it from other departments within the institutions, common courses, etc. This can be extended to even universities abroad. IIT-Kharagpur, SPA-Delhi & Bhopal have tied up with some of the Universities abroad, wherein their students can spend a semester abroad for research methods, or specific subjects to get the students trained. ITPI recommends this to be followed by other universities/ planning institutions as well. In fact, the planning institutions can come up with bridging courses with universities within India and abroad, if possible.

7.4 Funding the Academic Bank

There are issues regarding academic bank programme mainly because of cost factor and also teaching load for individual universities/ institutions. Moreover, the ranking of each of the institution/ universities come against such an academic bank. ITPI suggests the institutions/ universities to work out a pragmatic option on each of the course as a package. For example, if one institution is offering Research Methods, it should come out the exact cost of conducting such a course (this includes faculty, time, admin cost etc). It is necessary to explain this to the students how this amount is shared for the academic bank credits including the costs by each institution. Some of them may be offered free depending on the subjects already offered to other institutions. ITPI suggests the MoE/ UGC to deliberate on these aspects of cost sharing, especially Government institutions which are already facing constraints of funding and restrictions on charging fees or obtaining credits from abroad, as the universities abroad may ask for fees for each of the course they provide.

8. REGULATORY COUNCIL FOR PLANNING EDUCATION

One of the recommendations of NEP, 2020 is to establish the General Education Council (GEC) to formulate a National Higher Education Qualification Framework (NHEQF) to suggest expected learning outcomes and the qualifications leading to a degree/diploma/certificate for higher education programmes. In this context ITPI is responsible for establishing, nurturing and

advancing the professional and technical aspects in the planning education in the country. It, being a professional and expert body, has already assisted AICTE through MoU (1996) for accrediting the Technical Institutes imparting Town and Country Planning Education in India. It is well conversant with ground realities of education, profession, industry and research in the planning discipline. Therefore, ITPI would be in position to provide all the assistance to the Regulatory Authorities in the domain of Town and Country Planning Education. Only ITPI should be assigned the functions to draw curricula, setting standards and assigning functions of coordination between teaching, research and extension in planning discipline exclusively. Therefore, ITPI should be given adequate representation in the BoG of GEC.

9. OTHER SUGGESTIONS

Some of the institutional level suggestions for the success of the proposed structure of the planning programme, as per the NEP, 2020, are as under.

- The Planning Institutes should promote global networking; strategic alliances; technology enabled learning; e-content and resource-based learning; research collaboration; demand driven programmes/ courses; active industry-academia interface; and technology incubation.
- Multi-disciplinary programmes should be designed to impart basic, advanced, competent, and expert level education. Some of the proposed specialized PG Programmes in this context are as under.
 - Master of Landscape, Ecology and Resource Planning
 - Master of Heritage and Conservation of Special Areas
 - Master of Sustainable Habitat
 - Master of Logistics and Freight Management
 - Master of Sustainable Mobility Management
 - Master of Urbanism and Resilient Planning
 - Master of Spatial Governance
- ITPI should take lead to organise capacity building training programmes for the industry and academia periodically to refresh and orient the planning ideas, contemporary practices, and technological advancements.
- ITPI should deliberate and suggest the mechanism to share the Academic Bank of Credits among the institutes imparting Planning Education.
- ITPI should deliberate and suggest for allowing the lateral entry of the candidates from the other planning education institutes at different Entry/Exit points, as suggested by NEP 2020.

- ITPI may deliberate on starting Executive PG Programme in Planning for in-service Planners.
- Online and open distance learning (ODL) teaching systems should be evolved and practiced for quality teaching-learning mechanism.
- The Planning Institutes should promote collaborative research, e-studios, and exchange.
- The Planning Institutes should operationalize multiple entry and exit points within seven years' time, as mentioned in the NEP 2020 guidelines, through Academic Bank of Credits.
- The Planning Institutes should promote research-based specialization.
- The Planning Institutes should promote academia-government-industry linkage.
- The Planning Institutes should inculcate pedagogical reforms communication, discussion, debate, research, and opportunities for cross-disciplinary and interdisciplinary thinking.
- The Planning Institutes should promote research internships.
- The Planning Institutes should start Executive PG Programme in Planning for working professionals. It may be in part-time or online mode.
- The Planning Institutes should start short term innovative/ skill development courses for the benefit of the society and the professionals.
- The Planning Institutes should adopt criterion-based grading system as suggested by NEP, 2020 in which the student is assessed for his achievements based on the learning goals for each programme.
- The Planning Institutes should establish incubation centre, technology development centre, quality libraries (possibly sharable digital libraries), and research centre should be established in each Planning Institute as student support systems.
- Networking of the Planning Institutes is proposed for vivid purposes.
- All the Planning institutes of India should conduct common entrance test for admission to their programmes.
- ITPI may take the lead in working out a mechanism of transfer of credits and fee structure for different courses in the Planning Institutes.
- MOOC Courses on DIKSHA/SWAYAM should be promoted by the Planning Institutes. Teachers should be encouraged and incentivised to develop more SWAYAM courses to the interest of the students.
- More value-added courses should be included in the programmes to make the students responsive, responsible, and disciplined.

ANNEXURE - A

	First Semester					
	Course Title	Credits	Within the Programme	Outside the Programme but within the Institution	Planning Institution Outside	Outside Planning but in Academic Institution by UGC (MOOC/OL)
	History of Settlement and Planning	3	Υ			
	Techniques of Planning	2	Υ			
icate	Social-cultural and Economic Aspects of Settlements	3		Y	Y	Y
ırtif	Environmental Studies	3		Y	Υ	Υ
UG Certificate	Quantitative Methods and Computer Fundamentals	3		Y	Y	Y
	Local Area Language	2		Υ	Υ	Υ
	Planning Studio - Map Graphics/ Presentation Techniques	4	Υ			
	Internship	4	Υ	Y	Υ	Υ
	Second Semeste	r				
	Fundamentals of Planning	3	Υ			
	Surveying and Land Development	2	Υ			
	Fundamentals of Architectural Design	3		Y	Υ	Y
	Human Rights and Constitutional Duties	3			Υ	Y
	Introduction to GIS	3	Υ		Υ	Y
	Communication and Writing Skills	2		Y	Υ	Y
	Planning Studio - Area Appreciation (Urban/ Rural)	4	Υ			

	Third Semester	-				
	Planning Theory	3	Υ			
	Planning for Utilities	2	Υ	Υ	Υ	Y
	Site and Land Development	2	Υ		Υ	
	Geographic Basis in Planning	3	Υ		Υ	Υ
	Basics of Information Technology and Programming	3		Υ	Υ	Y
_	Liberal Learning Courses	2			Υ	Y
E O	Planning Studio- Site Planning	7	Υ			
UG Diploma	Internship	4	Υ	Υ	Υ	Y
UG	Fourth Semeste	r				
	Transportation Planning - I	3	Υ	Υ		
	Housing	3	Υ	Υ		
	Landscape, Ecology and Resource Planning	2		Υ	Υ	
	Geoinformatics and Data Analytics	2	Υ	Υ	Υ	Υ
	History and Culture of Local Area	2	Υ		Υ	Y
	Planning Studio- Village / Zonal Development Plan	8	Υ		Y	
	Fifth Semester					
	Transportation Planning - II	3	Υ	Υ		
	Regional Planning	3	Υ	Υ		
	Land Economics and Real Estate Management	2	Υ	Υ		
a	City Design and Aesthetics	2		Υ	Υ	
UG Degree	Climate Change and Sustainable Development/ Disaster Management	2	Υ	Y	Y	
DN UG	Planning Studio- Master Plan/ Development Plan	8	Υ		Y	
	Internship	4	Υ	Υ	Υ	Y
	Sixth Semester					
	Planning Legislation	3	Υ			
	Rural Habitat Planning	2	Υ		Υ	

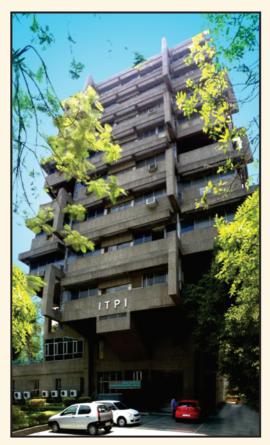
Governance and Plan Implementation	3	Υ		Υ	Υ
Estimation, Specification and Valuation	2		Υ		
Planning for Informal Sector/ Planning for Special Areas	2	Υ		Y	
Planning Studio - Planning Studio - Regional Plan	8	Υ		Υ	

	Seventh Semo	ester				
P)	Course Title	Credits	Within the Programme	Outside the Programme but within the Institution	Planning Institution Outside	Outside Planning but in Academic Institution by UGC (MOOC/OL)
or F)	Research Methods	3	Υ	Υ		Y
(Opt f	Project Formulation, Appraisal and Management	2	Υ	Y		Y
Degree	Environment Planning/ Urban and Regional Infrastructure Planning	2	Υ	Υ	Y	
- DN	Urban and Regional Infrastructure Planning	2	Υ			
lrs)/	Development Finance	2		Υ		Υ
(Honot	Dissertation Preliminaries/ Case Study Seminar	2	Υ			
UG Degree (Honours)/ UG Degree (Opt for FYIP)	Planning Studio - Detailed Project Report/ Feasibility Study	7	Υ		Y	
190	Internship	4	Υ	Υ	Υ	Y
	Eighth Semester (Opt	tion I	and	III)		
	Professional Practice and Ethics	3	Υ			
	Public Policy	2	Υ	Y		Υ
	Urban Supply Chain Management	2		Y		
	Heritage and Conservation for Special Areas	2	Υ		Y	
	Politics, Planning and Development	2		Y		Υ
	Planning Studio - special Area Plans	7	Υ		Y	

UG Degree (Honours With Research)	Eighth Semester (Option II)						
	Professional Practice and Ethics	3	Υ				
	Public Policy	3	Υ	Υ		Y	
	Heritage and Conservation for Special Areas	2	Υ		Υ		
	Planning Studio - Planning Dissertation	12	Υ				
UG Degree (Honours With Research)	Ninth Semester (For institutions not having any PG Programme)						
	Inclusive Smart Cities	3	Υ				
	Technology and Sustainable Cities	2	Υ		Υ		
	Child Friendly Cities	2	Υ		Υ		
	Spatial Data Analytics	2	Υ	Y	Y		
	Energy Management	2		Y			
	Planning Studio - Planning Project	7	Υ		Υ		
	Internship	4	Υ	Y	Υ	Y	
	Tenth Semester						
	Modelling Urban Dynamics	3	Υ				
	Climate Resilient Cities	3	Υ		Υ	Υ	
	Urban & Regional Economic Policy and Local Development	2		Y			
	Planning Studio - Planning Thesis	12	Υ				

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