

INTEGRAL UNIVERSITY, LUCKNOW

FACULTY OF ARCHITECTURE, PLANNING AND DESIGN

Masters in Planning

Syllabi

(w.e.f session 2020-21)

Approved By Academic Council Held On2021



Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL501	Title of the Course	Planning History and Theory	L	T	P	C
Year	I	Semester	I	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> To critically understand economic, political, cultural, social, and other forces shaping built environments in history. To examine the significance of histories as they inform the present planning of settlements. To study the evolution of cities, history of planning and theories of city development. 						

Course Outcomes	
CO1	To demonstrate appreciation and knowledge of histories of planning and evolution.
CO2	To explain and analyses substantive command of the spectrum of past and present perspectives regarding planning theory.
CO3	To make students understand Spatial correspondence between urban patterns through space and time.
CO4	Understand the historical evolution of urban settlements and connected development theories.
CO5	Understand the morphological dimensions of urban patterns and spaces.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Evolution of City Building	Relevance of the study of the evolution of settlements; Hunter, gatherer, farmer, and formation of organized society; Cosmological and other influences, origins and growth of cities, effects of cultural influence on physical form; Human settlements as an expression of civilizations; Basic elements of the city; Concepts of space, time, scale of cities	9	CO 1
2	Planning History	Town planning in ancient India; Medieval, renaissance, industrial and postindustrial cities; City as a living spatial entity; Concepts of landmark, axis, orientation; City form as a living space; City as a political statement: New Delhi, Chandigarh, Washington D.C. Brasilia etc.; Contribution of individuals to city planning: Lewis Mumford, Patrick Geddes, Peter Hall, etc; Dynamics of the growing city, impact of industrialization and urbanization, metropolis and megalopolis	10	CO 1 & CO 2
3	Definitions and Objectives of Planning	Definitions of town and country planning; Orthodoxies of planning; Goal formulation, objective, scope, limitations; Sustainability and rationality in planning; Components of sustainable urban and regional development	9	CO 3
4	Theories of City Development	Theories of city development include Concentric Zone Theory, Sector Theory, Multiple Nuclei Theory and other latest theories; Land use and land value theory of William Alonso; Ebenezer Howard's Garden City Concept; and Green Belt Concept; City as an organism: a physical, social, economic and political entity; Emerging Concepts: global city, inclusive city, safe city, etc.; City of the future and future of the city; Shadow cities, divided cities.	10	CO 4 & CO 5
5	Planning Theories	Models of planning: Advocacy and Pluralism in Planning; Systems approach to planning: rationalistic and incremental approaches, mixed scanning and middle range planning; Equity planning; Political-Economy Model; Types of development plans, plan making process.	10	CO %

Reference Books:

1. Hall, P, Cities of tomorrow: an intellectual history of urban planning and design in the twentieth century, 2001.
2. Birch, E.L. and Silver, C., One Hundred Years of City Planning's Enduring and Evolving Connections, Journal of the American Planning Association, Vol.75, Issue 2, pp.113-122, 2009.
3. Sandercock, L., Making the Invisible Visible: A Multicultural Planning History, 1998.
4. Brooks, M.P., Four critical junctures in the history of the urban planning profession: An exercise in hindsight, Journal of the American Planning Association, Vol. 54, Issue 2, 241-248, 1988.
5. McLoughlin, J. B., Urban and Regional Planning. A systems approach, 1969.
6. Faludi, A., A Reader in Planning Theory, 1973.
7. Healey, P., Collaborative Planning: Shaping Places in Fragmented Societies, 1997.

e-Learning Source:

- <https://journals.sagepub.com/doi/abs/10.1177/1558689807306147>
- https://www.goodreads.com/?ref=nav_hom
- https://www.cur.ac.rw/mis/main/library/documents/book_file/digital-64510d278b1fa4.23325841.pdf
- <https://libguides.hkust.edu.hk/writing/guides>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO																		
CO 1	2	2	3	2	3	1	2											
CO 2	1	3	3	2	2	3	3											
CO 3	3	3	2	2	2	1	2											
CO 4	1	2	3	2	2	3	3											
CO 5	2	1	3	2	3	1	2											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL502	Title of the Course	Planning Techniques & Quantitative Analysis	L	T	P	C
Year	I	Semester	I	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> To study the Database for Physical Surveys and Techniques of preparation of Base Map. To study the Methods of Population Forecast and Projections. To apply the various comparative methods for the above objectives. 						

Course Outcomes	
CO1	Students are exposed to terminologies and concepts, and techniques of Planning.
CO2	To analyse the analytical methods of data required for planning and methods of data collection.
CO3	Understand different methodological approaches and their manifestations.
CO4	To analyse the statistical application of data required for planning and methods of data collection.
CO5	To demonstrate an understanding of data analysis and to be able to examine data for understanding the existing situation in a settlement.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Survey Techniques and Mapping	Data base for physical surveys including land use, building use, density, building age, etc., and socio-economic surveys; Survey techniques; Land use classification or coding and expected outputs; Techniques of preparing base maps including understanding the concepts of scales, components and detailing for various levels of plans like regional plan, city plan, zoning plan, and local area plan.	10	CO 1
2	Analytical Methods	Classification of regions, delineation techniques of various types of regions, analysis of structure of nodes, hierarchy, nesting, and rank size; Scalogram, sociogram, etc.; Planning balance sheet; Threshold analysis; Input output analysis, SWOT analysis.	9	CO 2
3	Demographic Methods	Methods of population forecasts and projections; Lorenz Curve, Ginni Ratio, Theil's index, ratios: urban – rural, urban concentration, metropolitan concentration; Location dimensions of population groups – social area and strategic choice approach – inter connected decision area analysis.	9	CO 3
4	Statistical Applications	General concepts - statistical interference, population and samples variables, Sampling, simple statistical models, Measures of central Tendency, Measures of Dispersion, Measures of shape of distribution, Correlation, and regression.	10	CO 4
5	Case Study and Documentation	Visit to a Local Body / Development Authority and submit report with relevance to adoption of Planning Techniques by them.	10	CO 5

Reference Books:

- Margaret Robert, A introduction to town planning techniques, 1974.
- Lewis B. Keeble, Principles and practice of town planning, 1967.
- Ian Braken, Urban Planning Methods, 2007.
- Kruekeberg D. A., and Silvers A. A, Urban Planning Analysis, 1988.

e-Learning Source:

- <https://journals.sagepub.com/doi/abs/10.1177/1558689807306147>
- https://www.goodreads.com/?ref=nav_hom
- https://www.cur.ac.rw/mis/main/library/documents/book_file/digital-64510d278b1fa4.23325841.pdf
- <https://libguides.hkust.edu.hk/writing/guides>

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CO																		
CO 1	1	3	3	2	2	3	3											
CO 2	2	3	3	2	3	3	3											
CO 3	3	3	2	1	2	1	1											
CO 4	2	3	1	2	2	3	3											
CO 5	3	3	1	2	2	1	2											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL503	Title of the Course	Infrastructure and Transport Planning	L	T	P	C
Year	I	Semester	I	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> To study the Elements of Physical Infrastructure and its Management. To study the Basic Principles of Urban Transport Planning and Infrastructure. To study the current trends in planning influenced by various transportation systems. 						

Course Outcomes	
CO1	Students will grasp the necessity and importance of developing urban infrastructure.
CO2	Understand the ways in which infrastructure planning projects are implemented. Techniques of data collection and analysis would be taught as part of this course.
CO3	To design and make recommendations for meeting the future needs of infrastructure for a human settlement.
CO4	Knowledge of the fundamentals of Traffic and Transportation Engineering and Probability and Statistics is the desired prerequisite for the course.
CO5	The course also provides adequate exposure to travel demand forecasting and the application of the results of the forecasting.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Role of Infrastructure in Development	Elements of Infrastructure (physical, social, utilities and services); Basic definitions, concepts, significance, and importance; Data required for provision and planning of urban networks and services; Resource analysis, provision of infrastructure, and land requirements; Principles of resource distribution in space; Types, hierarchical distribution of facilities, Access to facilities, provision and location criteria, Norms and standards, etc.	9	CO 1
2	Planning and Management of Water, Sanitation and Storm Water	Water – sources of water, treatment and storage, transportation and distribution, quality, networks, distribution losses, water harvesting, recycling and reuse, norms and standards of provision, institutional arrangements, planning provisions and management issues; Sanitation – points of generation, collection, treatment, disposal, norms and standards, grey water disposal, DEWATS, institutional arrangements, planning provisions and management issues. Storm water – rainfall data interpretation, points of water stagnation, system of natural drains, surface topography and soil characteristics, ground water replenishment, storm water collection and disposal, norms and standards, institutional arrangements, planning provisions and management issues.	10	CO 2 & CO 3
3	Planning and Management of Municipal Wastes, Power and Fire	Municipal and other wastes – generation, typology, quantity, collection, storage, transportation, treatment, disposal, recycling and reuse, wealth from waste, norms and standards, institutional arrangements, planning provisions and management issues. Power – Sources of power procurement, distribution networks, demand assessment, norms and standards, planning provisions and management issues. Fire – History of fire hazards, vulnerable locations, methods of firefighting, norms and standards, planning provisions and management issues.	10	CO 3
4	Transport Infrastructure Planning, Management and Design	Role of transport, types of transport systems, evolution of transport modes, transport problems and mobility issues; Urban form and Transport patterns, land use – transport cycle, concept of accessibility; Hierarchy, capacity and geometric design elements of roads and intersections; Basic principles of Transport infrastructure design; Traffic and transportation surveys and studies, traffic and travel characteristics.	10	CO 4
5	Urban transport planning	Urban transport planning process – stages, study area, zoning, data base, concept of trip generation Transport, environment and safety issues; principles and approaches of traffic management, transport system management.	9	CO 5

Reference Books:

1. Mohinder Singh and L.R. Kadiyali, Crisis in road transport, 1989.
2. L. R. Kadiyali, Traffic engineering and transportation planning, 2007.
3. Mukerjee S. and Chakraborty D. (Eds), Environmental scenario in India, 2012.
4. Sameer Kochhar, Deepak B. Phatak, H. Krishnamurthy, Gursharan Dhanjal, Infrastructure and Governance, 2008.
5. The Next American Metropolis (Peter Calthorpe, 1995).
6. Public Streets for Public Use (Anne Vernez Moudon, 1987).

e-Learning Source:

- <https://company.ptvgroup.com/zh/expertise/transport-infrastructure-planning>
- <https://www.wsp.com/en-in/hubs/transport-and-infrastructure>
- <https://transportgeography.org/contents/chapter9/transport-planning-governance/>
- <https://lntiel.com/index.php/sectors/transport-planning/>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO 1	2	3	1	2	2	3	3											
CO 2	2	3	3	2	3	3	3											
CO 3	3	3	2	1	2	1	1											
CO 4	2	3	1	2	2	3	3											
CO 5	3	3	2	1	2	1	1											

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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL504	Title of the Course	Housing, Rehabilitation & Resettlement	L	T	P	C
Year	I	Semester	I	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> To introduce the Basic Definitions, Concepts and Socio-economic Dimensions related to Housing. To provide a basic understanding of Housing at the Neighborhood and City level. To appreciate the Housing Sector as an Integral Sector of the Overall Town Planning System. 						

Course Outcomes	
CO1	To provide a basic understanding of housing at the neighborhood and city level and to appreciate the housing sector as an integrated sector of the overall town planning system.
CO2	To identify the problems and issues of urban Housing in India.
CO3	To conduct field surveys, examine and analyze data and information collected through various field surveys, and perform analysis.
CO4	To understand the housing, urban policy and land records, evolution of Land in India.
CO5	To understand the roll of national and international agency.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Concepts and Definitions	Shelter as a basic requirement, determinants of housing form, Census of India definitions, Introduction to policies, housing need, demand and supply, dilapidation, structural conditions, materials of constructions, housing age, occupancy rate, crowding, housing shortage, income and affordability, poverty and slums, houseless population. Various housing typologies viz. traditional houses, plotted development, group housing, multi-storied housing, villas, chawls, informal housing etc.	10	CO 1
2	Overview of Informal Housing	Emergence and growth of Informal Housing in third world cities and formal regulatory framework Diversity of housing needs of urban poor and informal housing options pavement dwelling, squatting, illegal land-subdivision, inner-city organic housing, and urban villages. Causes of growth and perpetuation and impacts of illegality.	10	CO 1 & CO 2
3	Slums and Government Intervention	Process of slum formation, causes and consequences, approaches to tackle the challenge of slums, relocation, rehabilitation, in-situ upgradation, etc. Role of NGO's and CBO's in the improvement process; Dimensions of poverty and its manifestation in the housing sector, indicators, programmes specifically targeted towards slums and the urban poor, shelter less population.	9	CO 2 & CO 3
4	Housing Environments	Slums and squatters, night shelters, public health issues related to housing, various theories of housing, concept of green housing, green rating of housing projects; basic services for housing neighborhoods. Approaches to neighborhood living in traditional and contemporary societies, elements of neighborhood structure.	9	CO 4
5	Planning and design criteria	Planning and design criteria for modern neighborhoods, norms and criteria for area distribution, housing and area planning standards, net residential density and gross residential density, development controls and building byelaws, UDPFI guidelines, NBC 2005 provisions and Case studies of neighborhood planning.	10	CO 4 & CO 5

Reference Books:

1. Dwyer, D.J., People and Housing in Third World Cities, 1981.
2. Beyer Glen H, Housing: a factual analysis, 1958.
3. Abrams, Charles, Man's Struggle for Shelter in an Urbanizing World, 1964.
4. Payne, Geoffrey, Urban Housing in the Third World, 1977.
5. Al Nichols, Inside the Civano Project (Green Source Books): A Case Study of Large-Scale Sustainable Neighborhood Development (Mcgraw-Hill's Green source Series), 2009.
6. Douglas Farr, Sustainable Urbanism: Urban Design With Nature, 2007.
7. Aromar Revi, Shelter in India – Sustainable Development Series, 1990.
8. International Institute for Energy Conservation, Eco housing Assessment criteria Version II, 2009.

e-Learning Source:

- <https://www.sparcindia.org/resettlement.php>
- https://forestsclearance.nic.in/writereaddata/FormA/Displacement/7111712551214NYOICAnnexure_7.pdf
- https://www.cur.ac.rw/mis/main/library/documents/book_file/digital-64510d278b1fa4.23325841.pdf
- <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/transport-planning>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	P	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PS	PS	PS	PS	PS	PS
	O	2	3	4	5	6	7	8	9	10	11	12	O1	O2	O4	O5	O6	O7
CO																		
CO 1	2	3	2	2	2	3	1											
CO 2	2	3	3	2	3	1	3											
CO 3	3	3	2	1	2	3	1											
CO 4	2	2	1	2	2	2	3											
CO 5	3	1	2	1	2	2	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21											
Course Code	PL505	Title of the Course	Environmental Planning	L	2	T	1	P	-	C	3
Year	I	Semester	I								
Pre-Requisite	Nil	Co-requisite	Nil								
Course Objectives	<ul style="list-style-type: none"> To study Concepts of Ecology and Ecosystem and undertake Resource Analysis for various Ecosystems. To study Environmental Issues and Development Imperatives. To cover the changing Perspectives on Man-Environment. Relationship with Focus on Issues of Population, Urbanization, Resource Depletion, and Pollution 										

Course Outcomes	
CO1	Comprehend the adverse impacts of social, cultural, and economic activities being carried by human beings on the environment.
CO2	Analyse the existing conditions from the perspective of conserving natural resources for spatial planning exercises.
CO3	Engage in discourses related to environmental issues.
CO4	Develop strategies according to climatic and environmental conditions for any given city as a planner.
CO5	The course shall educate students about the methods of water management, waste management, and other environmental and ecology-related issues.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Concepts of Ecology, Ecosystem and Environmental Planning	History of Environmental Planning, Development of habitat patterns, settlement structure and form in response to environmental challenges; Concepts of Ecology and Ecosystem, Urban Ecosystem.	9	CO 1 & CO 4
2	Approach of Environmental Design as Applicable to Built Environment	Criteria of Urban Environmental design issues-pedestrian-vehicular conflict, City Centre Environment, Housing areas, dereliction, environmental up-gradation programs; built environment aesthetics of ensemble of buildings, techniques of study of building condition, conservation aspects of built-up areas. Environmental approaches to design and planning of rural settlements, use of alternate technology in the design of human settlements.	10	CO 2
3	Environmental Policy; Protection & Management	Policies and their implication in urban planning, international and national policies, and related interventions; Protection techniques, an overview of legal and legislative provisions for protection, case studies, and best practices; Role of various authorities and institutions, practices at the regional, city, and local level.	10	CO 3 & CO 5
4	Environmental Protection Techniques	Air pollution mitigation and abatement; water pollution mitigation and abatement Noise attenuation; EPA Guidelines; the role of Government and Non-Government Organizations in Environmental Protection; best practices in Environmental Protection and Conservation; International Co-operation for Environmental Protection.	9	CO 5
5	Case Study and Documentation	Visit Local Bodies / Development Authorities and submit a report on Environmental Design being practiced by them.	10	CO 4 & CO 5

Reference Books:

1. Land-use Planning, Environmental Protection, and Growth Management an Introduction to Environmental Biophysics

e-Learning Source:

- <https://journals.sagepub.com/doi/abs/10.1177/1558689807306147>
- https://www.goodreads.com/?ref=nav_hom
- https://www.cur.ac.rw/mis/main/library/documents/book_file/digital_64510d278b1fa4.23325841.pdf

- <https://libguides.hkust.edu.hk/writing/guides>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO 1	2	3	2	2	2	3	1											
CO 2	2	2	1	2	2	1	3											
CO 3	3	3	2	1	2	3	1											
CO 4	2	2	1	2	1	2	2											
CO 5	3	1	2	1	2	2	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL506	Title of the Course	Planning Studio-I	L	T	P	C
Year	I	Semester	I	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> To understand Development Issues. To appreciate Contextual location of the Area in relation to City. 						

Course Outcomes	
CO1	To develop data collection and analytical skills through field surveys and analysis for the purposes of plan preparation
CO2	To apply theoretical concepts to real-world situations.
CO3	To develop sensitivity to group dynamics and work in teams.
CO4	To understand and contextualize the location of the area concerning the city, zone, and area in which the particular place is situated.
CO5	Understanding the city involves appreciating these multi-directions and including them in the city-making process.

Unit No.	Title of the Unit	Content of Module	Contact Hrs.	Mapped CO
1	Film Appreciation (Individual Assignment)	Planning Standards Spatial standards, performance standards and benchmarks, and variable standards; UDPFI guidelines; zoning regulations and development control rules and regulations Films related to city development and socio-economic issues will be screened for students. The purpose of these films is to educate the student's understanding of various development issues and to absorb them in the planning practice. At the end of the film, discourse around the film will also be held. After viewing the films, each student is expected to write about its main focus, city/region context, and its applicability to the Indian environment by answering the given questions in not more than half a page.	9	CO 1
2	Literature Review (Individual Assignment)	Each student is expected to read the article given from a journal/book and write a summary of not more than a page (250 words only) highlighting the problem, approach, methodology, analysis, how the author arrived at a conclusion and its relevance to the Indian context. There will be a negative marking for writing the same text as in the original (that is copying from the original text given to them).	10	CO 2
3	Area Appreciation (Individual Assignment)	<p>The aim of the area appreciation exercise is to enable the students to understand and contextualize the location of the area in relation to the city, zone and area in which the particular place is situated. This is done in relation to the socio-economic, spatial and cultural characteristics of that city, zone, location, etc. The main purpose is to make the students appreciate the locational attributes of land parcels for future development in a city. Due to the size of the area, this exercise is done in groups of students being assigned to a particular area. The following planning issues at area level should be identified:</p> <ul style="list-style-type: none"> Review of the Master Plan / Zonal / Area plan in relation to the selected areas. Appreciation / Analysis of ward level data. Perception of areas in terms of legal / illegal / authorized / unauthorized, Slums, Urban Aesthetics. Social Categorizations of people – Type of population living, people's perception about area and its planning problems. Land use including Agriculture land and land-use conflicts, extent (%) of broad land use such as commercial, industrial, residential, institutional and recreational. Extent of formal/informal activities present in the area including their location and conflicts. 	12	CO 3

		<ul style="list-style-type: none"> • General land tenure of the area and land value for different uses. • Major types of transport, type of roads, the hierarchy of roads, type of transport modes used. • Amenities: Location of Social and Physical infrastructure and their problems as perceived by local population. Look for specific infrastructure such as Water supply, drainage (water logging areas), waste collection and disposal system, sanitation, etc. • Environmental Issues: Open Spaces – Availability and extent of open space to the built-up area, garbage disposal, encroachment (through photographic evidences and sketches). • Locating the study area in the zone, city, and regional context with respect to all the above aspects. 		
4	Site Planning (Individual Assignment)	Air pollution mitigation and abatement; water pollution mitigation and abatement Noise attenuation; EPA Guidelines; the role of Government and Non-Government Organizations in Environmental Protection; best practices in Environmental Protection and Conservation; International Co-operation for Environmental Protection.	7	CO 5 & CO 4
5	City Development Plan (Group Assignment)	Visit to Local Bodies / Development Authority and submit report on Environmental Design being practiced by them.	10	CO 3 & CO 4

Reference Books:

- 1- Lynch, Kevin, Site Planning
- 2- Smith, Carl, et. al., Residential Landscape Sustainability – A Checklist Tool 2008
- 3- Ministry of Urban Development, Revised Tool Kit for Preparation of CDP 2009

e-Learning Source:

- <https://irl.umsl.edu/cgi/viewcontent.cgi?article=1859&context=dissertation>
- <https://www.dissertations.se/about/teachers+professional+development/>
- <https://www.csm.edu/sites/default/files/Trehearn.pdf>
- <https://geolumina.org/geoscience-dissertation-skills/>

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CO 5	3	1	2	1	2	1	3											

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Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21											
Course Code	PL507	Title of the Course	Socio-Economic Planning	L	2	T	1	P	-	C	3
Year	I	Semester	I								
Pre-Requisite	Nil	Co-requisite	Nil								
Course Objectives	<ul style="list-style-type: none"> To study the Socio-cultural Profile of Indian Society in the context of Urban and Rural Settlements. To study the Economic Growth and Development of Urban and Rural Settlements. 										

Course Outcomes	
CO1	To study the socio-economic profile of the Settlement.
CO2	To understand the on-ground reality and its impacts on their life socially and economically.
CO3	Through this course, students will begin to understand how Economics and Social forces shape the cities and how to use them as tools to shape cities.
CO4	To develop an understanding of the structure of urban areas and how prices of urban land are determined; develop an understanding of the fiscal issues of cities
CO5	To understand urban dynamics, the behaviour of individuals, communities, and entire societies. Socio-spatial differentiation.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Nature and Scope of Sociology	Sociological concepts and methods, man and environment relationships; Socio- cultural profile of Indian society and urban transformation; Tradition and modernity in the context of urban and rural settlements; Issues related to caste, age, sex, gender, health safety, and marginalized groups; Displacement, resettlement and rehabilitation due to compulsory land acquisition	9	CO 1
2	Community and Settlements	Social problems of slums and squatters' communities, urban and rural social transformation and their impact on social life, safety, security; Crimes in urban areas and their spatial planning implication's social structure and spatial planning; Role of socio-cultural aspects on growth patterns of city and neighbourhood communities; Social planning and policy, and community participation; Marginalization and concepts of inclusive planning, and gender concerns in planning.	10	CO 2 & CO 3
3	Settlement Policy	Settlement Policy: National Commission on Urbanization, Rural Habitat Policy and experiences from developing countries regarding settlement structure, growth and spatial distribution.	9	CO 3
4	Elements of Micro and Macro Economics	Concepts of demand, supply, elasticity, and consumer markets; the concept of revenue costs; Economies of scale, economic and social costs, production and factor market; Different market structures and price determination; market failures, cost-benefit analysis, public sector pricing; Determinants of national income, consumption, investment, inflation, unemployment, capital budgeting, risk and uncertainty, and long-term investment planning.	10	CO 4
5	Development Economics and Lessons from Indian Experiences	This unit would focus on developing critical reasoning and communication skills through studying planning cases including planning permissions, court cases, and attending public meetings, etc., application of concepts of the previous unit through a study of planning practice, documentation of cases.	10	CO 4 & CO 5

Reference Books:

1. N. Jayapalan, Urban Sociology 2002
2. William G. Flanagan, Urban Sociology-images and Structures 2010
3. Mani Monto, L.S., Sustainability and Human Settlements: Fundamental Issues, Modeling and Simulation 2005
4. Ganesh & K. Verghese
5. Dr. D N Dwivedi, Principles of Economics 2006

6. Karl E. Case, Principles of Economics 2009
7. Jhingan, M., The Economics of Development and Planning 1998
e-Learning Source:
• https://www.amazon.in/ABC-Real-Estate-India/dp/9387193160
• https://store.whitefalconpublishing.com/products/the-abc-of-real-estate-in-india
• https://m.tribuneindia.com/2006/20060520/real.htm
• https://www.amazon.in/ABC-Real-Estate-India/dp/9387193160

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PS-O	P O 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO 1	2	2	1	2	3	2	2											
CO 2	2	3	1	2	2	1	3											
CO 3	3	3	2	3	2	3	1											
CO 4	1	3	1	2	3	1	2											
CO 5	3	1	2	3	2	1	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL508	Title of the Course	City and Metropolitan Planning	L	T	P	C
Year	I	Semester	II	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> • To study City – Region Linkages and problems of Metro and Mega Cities. • To study Urban Development Policies and Problems. 						

Course Outcomes	
CO1	Understand the dichotomy between the urban and natural environment and resources.
CO2	Understand the significance of city-region linkages and inter-dependence.
CO3	Understand the complex nature of issues, process specifically at metro and mega cities scale.
CO4	Understand how to develop indicators to measure various environmental, social and economic qualities of urban areas.
CO5	Be familiar with concepts such as climate change, green infrastructure, transit-oriented development.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Urban Growth and System of Cities	Growth of cities scale, complexity and its impact on national development, cities as engines of growth, cities as ecosystems, and resources in cities.	9	CO 1
2	City – Region Linkage	City, fringe, and the periphery - physical and functional linkages, peri-urban development.	9	CO 2
3	Metro and Mega Cities: Problems and Issues	Growth trends and processes, characteristics, problems, concepts and concerns of urban sustainability, issues related to diversity and unintended growth, economic, social, and environmental sustainability, quality of life, inclusivity and equity, climate change, transit-oriented development, participatory planning. Inner city – issues and problems, approach to development.	9	CO 3 & CO 4
4	Human Settlement Planning, Urban Development Policies and Programmes	Concepts, approaches, strategies, and tools; Policies and programs at various levels, impact on metro and megacity development.	9	CO 4 & CO 5
5	Case Study and Documentation	Visit a City / Metropolitan Planning and Development Agency and submit a report.	12	CO 4

Reference Books:

1- ITPI, City and Metropolitan Planning and Design
2- Ramachandran, R Urbanization and Urban Systems in India 1998
3- Bawa, V. K. Indian Metropolis: Urbanization, Planning and Management 1987
4- MMRDA Madras 2011: A New Perspective for Metropolitan Management 1991
5- NCRPB Regional Plan 2021 2005
6- DDA Master Plan for Delhi 2021 2010
7- Misra, R.P. & Misra, K. Million Cities of India Vol. 1&2 1998

e-Learning Source:

• https://onlinecourses.swayam2.ac.in/cec20_ar01/preview
• https://core.ac.uk/download/pdf/214385568.pdf
• https://www.academia.edu/3546726/City_and_metropolitan_planning_exam_notes
• https://www.yourarticlelibrary.com/planning/basic-elements-of-metropolitan-planning-of-town-and-cities/4697

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO- PS O	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO																		
CO 1	2	2	1	2	3	3	2											
CO 2	2	3	1	3	2	1	2											
CO 3	2	3	2	1	2	3	1											
CO 4	1	3	2	2	3	1	2											
CO 5	3	1	1	3	2	1	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL509	Title of the Course	Advance Infrastructure Planning	L	T	P	C
Year	I	Semester	II	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> The Role and Significance of Infrastructure in Habitat Planning and in inducing People' Participation in the Planning Process. To understand the importance of different Sectors and their Mutual Interdependence. 						

Course Outcomes	
CO1	Outline sources, types, and composition of solid waste with methods of handling, sampling, and storage of solid waste.
CO2	To select the appropriate method for solid waste collection, transportation, redistribution, and disposal
CO3	Identify the right type of transportation system and social infrastructure facilities needed to cater to future demand and quantify the same.
CO4	The course also provides adequate exposure to travel demand forecasting and the application of the results of the forecasting.
CO5	Students should be familiar with various development agencies.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Water Supply and Sanitation	Quantity and quality, source of supply, transmission and distribution, treatment methods, and design guidelines. Sanitation – concepts, disposal systems, low-cost sanitation options; engineering aspects of sewage disposal; Wastewater – generation, disposal system Storm water drainage – systems	9	CO 1
2	Solid Waste Disposal and Management	Basic principles, generation, characteristics, collection, disposal, and management.	9	CO 2
3	Fire and Electrification, and Social Infrastructure	Planning for fire protection, services and space standards, location criteria; Planning for Education, health, civic, and cultural infrastructure.	9	CO 3
4	Traffic and Transportation	Planning for infrastructure and facilities for transport.	9	CO 3
5	Case Study and Documentation	Visit to an Infrastructure Development Agency and submit a report.	12	CO 4 & CO 5

Reference Books:

1- Gathe Donald E.; Billings, R. Bruce; Buras, Nathan, Managing urban water supply 2003
2- Ghosh, G.K. Water of India 2000
3- Yadav, Satish Water Problems and its Management 2004
4- W'Mays Larry Urban Water Supply Handbook 2002
5- Butter, David Urban Drainage 2004
6- Nathanson, J.A.; John, P.E., Wiley & Sons, N.R. Brisbane Basic Env. Technology Water Supply, Waste Disposal & Pollution Control. 1986
7- Bandela, Tare, D.G. N.N.; Municipal Management
8- Holmes, J.R. Manual on Municipal Solid Waste
9- Management, The Expert Committee
10- GoI, MoUD, CPNEEO 2000 Managing
11- Solid Waste in Developing Countries 1984

e-Learning Source:

<ul style="list-style-type: none"> https://books.google.co.in/books/about/Water_of_India.html?id=enE9kdIKqCQC&redir_esc=y

- <https://www.semanticscholar.org/paper/Groundwater-Arsenic-Contamination-in-India-%3A-and-Ghosh-Singh/971302567d3b38e676f27dd69ec1af05bf06bfd8>
- <https://cgwb.gov.in/WQ/Geogenic%20Final.pdf>
- <https://www.ncertbooks.guru/mcq-questions-on-modern-indian-history/>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO 1	2	3	1	2	3	3	2											
CO 2	2	3	2	3	2	1	2											
CO 3	2	1	2	1	2	3	1											
CO 4	1	3	1	2	3	1	2											
CO 5	3	1	2	3	2	1	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL510	Title of the Course	Remote Sensing & GIS Application	L	T	P	C
Year	I	Semester	II	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> • The study GIS Applications and principles of remote sensing. • To study sources of demographic data and statistical applications. 						

Course Outcomes	
CO1	Develop an understanding of GIS, RS and GPS applications.
CO2	Equipped with the GIS and RS techniques used in Planning.
CO3	Carry out image interpretation, spatial analysis and data processing at various scales needed at various levels of planning.
CO4	Carry out image interpretation, spatial analysis and data processing at various scales needed at various levels of planning.
CO5	Gain expertise in applications of GIS and RS in varied fields like Land use classification, natural resources mapping, disaster management, transport, and infrastructure planning etc.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Remote Sensing	Why remote sensing, aerial and satellite remote sensing, principles of aerial remote sensing, Aerial photo-interpretation, photogrammetry, stereovision, measurement of heights/depths by relief displacement and parallax displacement. Principles of satellite remote sensing, spatial, spectral, temporal resolutions. Applications in planning, population estimation, identification of squatter / unauthorized areas, sources of pollution, etc., spatial resolution related to level of Planning.	10	CO 1 & CO 2
2	GIS Mapping	Coordinate system, Geo-referencing, and geo-coding; GIS data processing (Digitization, topology building and metadata creation), Data structures and modelling, GIS analysis (Buffer, proximity, and overlay), Decision making through GIS, Information systems (Land Information system, Urban Information system for various activity sectors).	10	CO 1 & CO 2
3	GIS in Land use Survey	Digital image classification for land use land cover map preparation. Per pixel classification – statistical, artificial neural network and other machine learning approaches. Object-based image classification. Concept of mixed pixel. Sub-pixel classification – linear mixture modeling, fuzzy set-based classification, artificial neural network, and other machine learning approaches.	9	CO 3 & CO 4
4	Issues in urban and regional planning	Issues in urban and regional planning – objectives and planning processes, data requirements. Physical planning and statistical methods. Mapping of parcels and individual buildings, Utility of land use land cover in urban planning.	9	CO 4 & CO 2
5	GIS Applications	Coordinate system and geo-coding, vector data structure and algorithms, raster data structure and algorithms, databases for GIS – concepts, error modeling and data uncertainty, decision making through GIS, constructing spatial data infrastructure and spatial information system; National Urban Information system.	10	CO 5

Reference Books:

1 Grover. M. Fowler F. J., Couper M. P.
2 Lepkowski J.M., Singer E., Tourangeau R.,
3 Easa S., Chan Y., (ed) Urban Planning and Development, Application of GIS 2000
4 John W. Creswell Research Design 2003
5 Glatthorn A. A, and Joyner R. L. Writing the winning thesis 2005

e-Learning Source:

- <https://sjce.ac.in/wp-content/uploads/2018/01/REMOTE-SENSING-AND-GIS-PPT.pdf>
- <https://www.costelloinc.com/blog/remote-sensing-applications-in-gis>
- <http://ecoursesonline.iasri.res.in/mod/page/view.php?id=124940>
- <https://onlinedegrees.kent.edu/geography/geographic-information-science/community/remote-sensing-applications-in-gis>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PS-O	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO																		
CO 1	2	3	1	2	3	3	2											
CO 2	1	2	2	1	2	3	1											
CO 3	2	3	2	1	2	3	1											
CO 4	1	3	2	2	3	1	2											
CO 5	3	1	2	3	1	1	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL511	Title of the Course	Planning Studio - II	L	T	P	C
Year	I	Semester	II	-	-	12	6
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> • To Assess, Collect and Analyze the Information Requirements for the Study. • To understand the Characteristics of the City for Preparation of Sustainable Development Plan. 						

Course Outcomes	
CO1	To analyze the existing policy and planning literature on urban development plans.
CO2	To examine field survey data and information.
CO3	To produce spatial policies and to make planning proposals along with a land-use plan for a selected urban settlement.
CO4	To study involves understanding the exercise through theories and study of case studies.
CO5	To analyze topical issues, information and recommendations.

Unit No.	Title of the Unit	Content of Module	Contact Hrs.	Mapped CO
1	Geo-Informatics Laboratory Training	The laboratory training will be conducted in accordance with the studio exercise. Introduction to Geoinformatics, introduction to Remote Sensing – Aerial and Satellite; introduction to GIS, Spatial data, and Attribute data; Satellite images as input to GIS; Collection and presentation of baseline information.	90	CO 1 & CO 2
2	Development Plan	The studio exercise focuses on the planning, development, and design aspects (in line with the other core and elective courses offered in the semester). The exercise pertains to large cities and emerging metropolitan cities and ranges from preparation of sustainable development plans to sector-specific themes pertaining to tourism, SEZs, etc. The studio exercise enables students to develop an approach/ framework for the task; it is field based as a database is generated that is analyzed and the plan and strategies are formulated. Initial study involves understanding of the exercise through theories, study of similar case studies, awareness of relevant norms and standards through extensive literature search. Students are required to prepare a comprehensive list of required data and identify probable sources before making a field visit to the case study town/city. Students are encouraged to translate learning from the core and elective subjects to the studio exercise. The introduction of GIS in the studio enables them to apply it in the studio exercise. Students are expected to analyze the data collected and come out with proposals and recommendations for planned development of the city. The entire exercise is also documented in the form of a technical report. The second exercise is a short and intensive exercise of one-month duration. It pertains to topical issues i.e., property tax reforms, informal sector, development of railway land, etc. The study is based on primary surveys and students are expected to analyze the information and arrive at recommendations.	102	CO 3, CO 4 & CO 5

Reference Books:

1- Dellinger, A. Validity and the Review of Literature, Reviewing the Schools 2005
2- Hart, C. Doing a Literature Review, Releasing the Social Science Research Imagination
3- Taylor, G. A Student's Writing Guide: How to Plan and Write Successful Essays 2009
4- Colin Neville, C. Neville, The Complete Guide to Referencing and Avoiding Plagiarism 2007
5- Punch, Keith, An Introduction to Social Research: Quantitative and Qualitative Approaches 2005
6- Neuman, William, Basics of Social Research: Qualitative and quantitative approaches 2007

7- Bryman, Alan, Social Research Methods 2008
8- Finlay, B. Statistical Methods for the social Sciences 2009
e-Learning Source:
• https://journals.sagepub.com/doi/abs/10.1177/1558689807306147
• https://www.goodreads.com/?ref=nav_hom
• https://www.cur.ac.rw/mis/main/library/documents/book_file/digital-64510d278b1fa4.23325841.pdf
• https://libguides.hkust.edu.hk/writing/guides

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO 1	2	3	1	2	3	3	2											
CO 2	1	2	3	1	2	3	2											
CO 3	2	3	2	1	2	3	1											
CO 4	2	3	2	2	3	1	2											
CO 5	3	1	2	3	1	2	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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PS O	O 1	2	3	4	5	6	7	8	9	10	11	12	O1	O2	O4	O5	O6	7
CO																		
CO 1	2	1	1	2	3	1	2											
CO 2	1	2	3	3	2	3	2											
CO 3	2	3	2	1	2	2	1											
CO 4	2	1	2	2	3	1	2											
CO 5	3	1	2	3	1	2	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL513	Title of the Course	Elective-I (Big Data and Data Analytics)	L	T	P	C
Year	I	Semester	II	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> As technologies are getting embedded in the built environments, in this context, the major objective of this course is to understand the role and application of big data in urban and regional planning. 						

Course Outcomes	
CO1	To understand the concept of Big Data.
CO2	To know and use the Big Data sources for evaluating urban issues.
CO3	To prepare 3D multi-data maps and carry out data conversion between different data formats.
CO4	To prepare a map to show the urban vulnerability.
CO5	To perform hotspot analysis & shadow analysis.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Big data – An introduction	Defining big data and what makes it 'big'; Emergence of data science and big data; Importance and utility of big data in planning; Characteristics of big data; Links between big data, urban and regional planning, development, management and policy-making.	9	CO 1 & CO 2
2	Mapping the City	Different tools for making maps with big data; Understanding basic elements of maps; Mapping online programs and open spatial data and its uses.	10	CO 2 & CO 3
3	GIS Mapping	Geographic information systems software for mapping; and Identification of winners and losers in the big data system.	10	CO 3 & CO 4
4	Data acquisition and analytics	Understanding open data platforms; Generators of big data; Handling large datasets, cloud database system; Cleaning data, SQL, introduction to R or other software for urban data analysis.	10	CO 4
5	Big Data and Smart Cities	Explore big data in the context of smart cities; Learning use of real-time and crowd- sourced data collection and use; Interactive data visualization in the context of smart cities and regions.	9	CO 5

Reference Books:

- Jain, V.K. (2018) Big Data and Hadoop, Khanna Book Publishing Co., New Delhi.
- Carta, S. (2019) Big Data, Code and the Discrete City, Shaping Public Realms, Routledge, London.
- Desouza, K. and Smith, K. (2016) Big Data and Planning, PAS Report 585, American Planning Association, Washington, D.C.
- Townsend, A.M. (2013) Smart Cities: Big Data, Civic Hackers, and the Quest for a New Utopia, W.W. Norton and Company, London.
- Offenhuber, D. and Ratti, C. (eds.) (2014) Decoding the City: Urbanism in the Age of Big Data, Birkhauser Verlag AG.

e-Learning Source:

- <https://www.amazon.in/Big-Data-Hadoop-V-Jain/dp/938260913X>
- https://books.google.co.in/books/about/Big_Data_and_Hadoop.html?id=i6NODQAAQBAJ&redir_esc=y
- <https://docplayer.net/227940119-Data-science-and-analytics.html>
- https://khannapublishers.in/index.php?route=product/product&path=60_117&product_id=584

Course Articulation Matrix: (Mapping of COs with POs and PSOs)

PO- PS O	P O 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PSO 7
CO 1	2	3	1	2	3	1	2											
CO 2	3	2	3	1	2	3	2											
CO 3	2	3	2	3	2	2	1											
CO 4	2	1	2	2	3	1	2											
CO 5	3	2	2	3	1	2	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL514	Title of the Course	Elective-II (Water Security and Planning)	L	T	P	C
Year	I	Semester	II	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> Water is the most important life-sustaining resource as well as the global and Indian government's top most priority. The primary objective of this course is to teach about the global and Indian water security challenges. It is also our objective that future professionals know how to effectively transcend these global life-threatening water security challenges. 						

Course Outcomes	
CO1	To understand the concept of definition and status of water security.
CO2	To analyze the climate change and disaster and their impacts.
CO3	To understand the probable mitigation measures.
CO4	To identify the water governance and water policies in India.
CO5	To develop water resource planning.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Definitions and Status of Water Security	Concepts and definitions of water security; Spatial variations of water availability in India; Water stock, water consumption, and demand for various water uses; Status of water security in India; Sustainability and water security; Water security challenges in India.	9	CO 1
2	Disasters and Vulnerabilities-I	Floods and droughts and their impact on water security; Forms of vulnerabilities; Climate change and its impact on water security;	10	CO 2 & CO 3
3	Disasters and Vulnerabilities-II	Probable mitigation measures and planning for reduction of impact on water security; Water bodies and water security.	10	CO 2 & CO 3
4	Water Governance and Water Policies	Water governance; Policy interventions for water security in India; Role of water policies, missions, and action plans for water security for rural communities and urban settlements; Initiatives for ensuring water security; Role of organizations and institutions working for water security in India.	9	CO 4 & CO 5
5	Water Security and Settlement Planning	Development plans and water resource planning; Integration of concepts of water security in urban and regional planning and other development plans; Water requirements and demand projections for ensuring water security for settlements.	10	CO 4 & CO 5

Reference Books:

- 1 Sharp, L. (2017) Reconnecting People and Water, Public Engagement and Sustainable Water Management, Earthscan, London
- 2 Asthana V. and Shukla A.C. (2014) Water Security in India: Hope, Despair, and the Challenges of Human Development, Bloomsbury Academic, London
- 3 IDSA (2011) Water Security for India: The External Dynamics, Institute for Defence Studies and Analyses, New Delhi.
- 4 Gupta K.R. (2008) Water Crisis in India, Atlantic Publishers and Distributors Private Limited, New Delhi.

e-Learning Source:

- https://winrock.org/wp-content/uploads/2018/05/20170512_Winrock_SWP_Toolkit-3-2.pdf
- https://khannapublishers.in/index.php?route=product/product&path=60_117&product_id=584
- https://www.oecd.org/cfe/cities/Water_Action_Plan_for_Local_and_Regional_Governments.pdf
- <https://pas.org.in/Portal/document/Urban%20Water%20Security%20Planning%20Toolkit.pdf>
- <https://www.youtube.com/watch?v=zTv5GHL84tk>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)

PO- PS O	P O 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PSO 7
CO 1	2	3	1	2	3	1	2											
CO 2	3	1	3	1	2	3	1											
CO 3	2	3	2	2	2	2	2											
CO 4	2	1	2	2	1	1	1											
CO 5	3	2	2	1	1	2	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL515	Title of the Course	Elective-II (Universally Accessible Built Environments)	L	T	P	C
Year	I	Semester	II	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> This course majorly focuses on issues and problems faced by persons with disabilities on a day-to-day basis. The primary objective of this course is to sensitize students and provide them with basic understanding of government policies about universally accessible built environments. Another main objective is to equip students with skills so that they could critically examine built spaces from the perspective of universal accessibility and propose planning and design solutions for universal accessibility. 						

Course Outcomes	
CO1	To understand the concept and definition of universal accessibility.
CO2	To analyze the challenges of building accessible build environments and infrastructure in settlements.
CO3	To understand the acts, rules and guidelines on universal accessibility.
CO4	To produce links between planning and universal accessibility.
CO5	To understanding efforts of government in providing accessible build environments.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Concepts and Definitions	Meanings and definitions of accessibility and universal accessibility; Accessibility challenges for different groups and communities; Freedom and universal accessibility.	9	CO 1
2	Challenges for Universal Accessibility	Challenges of building accessible build environments and infrastructure in settlements; Accessibility audits for public spaces, buildings, infrastructures, and facilities.	10	CO 2
3	Acts, Policies and Plans	Acts, rules, and guidelines on universal accessibility; Universal accessibility standards; Harmonious guidelines; Persons with disabilities acts and policies in India.	10	CO 3
4	Accessibility in Planning	Links between planning and universal accessibility; Development plans and universal accessibility.	10	CO 4
5	Government Initiatives	Understanding efforts of government in providing accessible build environments; Accessible India Campaign, other schemes and programs of governments and other stakeholders.	9	CO 5

Reference Books:

- Helen P., Jenny D., Tanja W., David S., Leonardo S., Andrew L., Christopher P. (2016) Universal Design 2016: Learning from the Past, designing for the Future, IOS Press Ebooks
- Indian Building Congress (2012) Guidelines for Design of Universally Accessible Built Environment, Indian Building Congress, New Delhi.
- Government of India (2016) Harmonized Guidelines and Space Standards for Barrier- Free Built Environment for persons with Disability and Elderly Persons, Ministry of Urban Development, New Delhi
- Hamraie A. (2017) Building Access: Universal Design and the Politics of Disability, University of Minnesota Press, Minneapolis, Minnesota.

e-Learning Source:

- <https://ebooks.iospress.nl/Publication/OpenAccess>
- <https://docs.lib.purdue.edu/dissertations/>
- <https://pure.york.ac.uk/portal/en/publications/universal-design-2016-learning-from-the-past-designing-for-the-fu>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO																		
CO 1	2	3	3	2	3	1	2											
CO 2	3	2	3	1	2	3	1											
CO 3	2	3	2	3	2	2	2											
CO 4	2	1	2	2	3	1	1											
CO 5	3	2	2	1	1	2	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL517	Title of the Course	Urban and Regional Governance	L	T	P	C
Year	II	Semester	III	2	-	-	2
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> Governance plays a crucial role in framing planning policies and their effective implementation. Therefore, the primary objective of the course on Urban and Regional Governance is to introduce to the students how cities and regions in India have governed with a particular focus on land the built environment. 						

Course Outcomes	
CO1	The student on completion of this course, would be able to equip to address the importance of legislation and institutions in urban management and governance
CO2	Comprehend how the principles and models of urban management and governance shall be applied to the practical situations facing urban policy makers.
CO3	To assess the role of public administration, local politics and citizen participation.
CO4	To analyze the role of the finance banks.
CO5	To demonstrate knowledge about the basics of land administration and management.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Evolution of Urban and Regional Governance	Comprehending governance; History of governance of urban and regional after 1947; Organizations involved in planning, development, and management of urban and rural areas; Present status of urban and regional governance in India.	4	CO 1
2	Devolution of Local Government	Need for decentralization and devolution of powers from state governments to local government; District Planning Committees and Metropolitan Planning Committees; Current position of implementation of 73rd and 74th amendment acts.	8	CO 2
3	Coproduction: Role of the Third Sector-I	Shift from government to governance; Context of governance for greater involvement of the private sector; Ideas of good governance; Public-private partnerships.	6	CO 3
4	Coproduction: Role of the Third Sector-II	Role of global players such as the World Bank, IMF, Asian Development Bank, the private sector, INGOs, NGOs, CBOs.	7	CO 4
5	Land Administration and Management	Models of land assembly in India - Bulk land acquisition, land reconstitution, etc.; Land administration and management; Understanding maps of land records; Methods of keeping land records in urban and rural areas.	7	CO 5

Reference Books:

1	Baud, I., and Wit, J. (2008) <i>New Forms of Urban Governance in India: Shifts, Models, Networks and Contestations</i> . New Delhi: Sage.
2	Desai, R. (2012) <i>Governing the Urban Poor: Riverfront Development, Slum Resettlement and the Politics of Inclusion in Ahmedabad</i> , <i>Economic and Political Weekly</i> , Vol. 47, No. 2, pp. 49-56.
3	Diwakar, D. (2016) <i>Resettlement of Urban Poor in Chennai, Tamilnadu: Concerns in R and R Policy and Urban Housing Programme</i> , <i>Journal of Land and Rural Studies</i> , Vol. 4, No. 1, pp. 97-110.
4	Freire, M. and Stren, R. (2001) <i>The Challenges of Urban Government: Policies and Practices</i> , World Bank, Washington, D.C.
5	<i>q Weekly</i> , Vol. 52, No. 27, pp. 55-65.
6	Gupta A., and Sivaramakrishnan, K. (2010) <i>The State in India after Liberalization</i> , Routledge, New York.
7	Jenkins, R., Kennedy, L., Mukhopadhyay, P., and Pradhan, K. (2015) <i>Special Economic Zones in India: Interrogating the Nexus of Land, Development and Urbanization</i> , <i>Environment and Urbanization Asia</i> , Vol. 6, No. 1, pp. 1-17.
8	Pethe, A., and Lalvani, M. (2006) <i>Towards Economic Empowerment of Urban Local Bodies in Maharashtra</i> , <i>Economic and Political Weekly of India</i> , Vol. 41, No. 7, pp. 635- 641

e-Learning Source:

• https://sk.sagepub.com/books/new-forms-of-urban-governance-in-india
• https://www.jstor.org/stable/23620928

- https://www.researchgate.net/publication/318759408_New_forms_of_urban_governance_in_India_shifts_models_networks_and_contestations
- https://books.google.co.in/books/about/New_Forms_of_Urban_Governance_in_India.html?id=yYAdAQAAMAAJ&redir_esc=y

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PSO 7
CO																		
CO 1	2	3	3	1	3	1	2											
CO 2	3	1	3	1	2	3	3											
CO 3	2	3	2	3	2	2	2											
CO 4	2	1	3	2	3	2	1											
CO 5	3	2	2	3	1	2	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL518	Title of the Course	Risk, Disaster Mitigation and Management	L	T	P	C
Year	II	Semester	III	2	-	-	2
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> To understand the basic concepts of disaster management as these relate to urban and regional planning. To understand processes and mechanisms of disaster management, disaster risk mitigation, and post disaster measures. To expose students to relevant planning policies and guidelines for reduction of disaster risks 						
Course Outcomes							
CO1	To show an understanding of the concepts and principles of disaster risk mitigation and planning.						
CO2	To identify the global scenario of Disaster risk management.						
CO3	To understand mechanisms of disaster management.						
CO4	To understand mitigation of disaster management.						
CO5	To demonstrate knowledge of preparing plans for area prone to disaster risks in order to reduce vulnerabilities.						

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Basic Concepts of Disaster Management	Disaster: Definitions, concepts, types, and perceptions; Recent initiatives at national and state level; Disaster management mechanisms at national, state and district levels.	8	CO1
2	Disaster Management – Global Scenario	Disaster: Kyoto Framework of disaster mitigation and management; Paris agreements; Disaster management policy at the national and state levels; Disaster management statutes at national and state levels.	6	CO 2
3	Disaster Management Mechanisms	Select global practices; Disaster and development; Development plans and disaster management plans; Roles played in disaster management by INGOs, NGOs, CBOs and armed forces; and Community Based Disaster Preparedness.	6	CO 3
4	Disaster Risk Mitigation	Natural Disasters: cyclones, floods, earthquakes, landslides etc.; Disaster as a physical phenomenon, causes and consequences of mitigation and management practices; Risks' mitigation strategies in development plans inclusive of industrial, chemical, and biological disasters; Land use planning, building bye laws and disaster safe construction practices.	6	CO 4
5	Disaster Preparedness and Post Disaster Management	Forecasting and early warning systems for various types of disasters; Role of communication and information technologies in disaster management; Disaster education and awareness; Case studies on natural disasters; Climate change and its implications in disaster mitigation; post-disaster management including rehabilitation and reconstruction of disaster affected areas; Safe hill area development guidelines and coastal zone regulations for safe habitation.	6	CO 4 & CO 5

Reference Books:

- 1- Coppola, D.P. (2007) Introduction to International Disaster Management, Butterworth Heinemann, London.
- 2- Joshi, A.D. (2009) Text Book of Disaster Management, Lotus Publication of Pvt. Ltd., Mumbai.
- 3- Sharma, S.C. (2019) Disaster Management, Khanna Book Publishing Co., New Delhi
- 4- NDMA (2007) Disaster Management Guidelines, NDMA, Government of India, New Delhi.
- 5- Ministry of Home Affairs (2004) Model Amendment in Town and Country Planning Legislations, Regulation for Land Use Zoning and Building Byelaws for Structural Safety, Government of India, New Delhi.
- 6- Ministry of Home Affairs (2006) National Policy on Disaster Management, Government of India, New Delhi.

e-Learning Source:

- [https://scholar.google.co.in/scholar?q=1.+Coppola,+D.P.+\(2007\)+Introduction+to+International+Disaster+Management,+Butterworth+Heinemann,+London.&hl=en&as_sdt=0&as_vis=1&oi=scholar](https://scholar.google.co.in/scholar?q=1.+Coppola,+D.P.+(2007)+Introduction+to+International+Disaster+Management,+Butterworth+Heinemann,+London.&hl=en&as_sdt=0&as_vis=1&oi=scholar)

- <https://www.elsevier.com/books/introduction-to-international-disaster-management/p-coppola/978-0-12-817368-8>
- <https://www.amazon.in/Introduction-International-Disaster-Management-Coppola/dp/0128014776>
- https://www.jmi.ac.in/upload/programme/cs_fns_geo_pgddm.pdf

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PSO7
CO																		
CO 1	2	3	3	1	2	1	2											
CO 2	1	3	2	1	2	3	3											
CO 3	2	3	2	3	2	2	2											
CO 4	2	3	3	2	1	2	1											
CO 5	3	2	2	3	1	2	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL519	Title of the Course	Dissertation & Professional Training	L	T	P	C
Year	II	Semester	III	2	2	4	6
Pre-Requisite		Co-requisite					
Course Objectives	<ul style="list-style-type: none"> The purpose of dissertation is to introduce to students, the research methods and to develop competencies for critically examining topics of their interest and present them. This will be a preparatory stage for the terminal or thesis project. 						

Course Outcomes	
CO1	Develop an understanding of the process and methods of undertaking live planning projects
CO2	Participate in the multi-disciplinary team of a live planning project
CO3	Understand various aspects of spatial planning, including exploring specialized fields Upon the completion.
CO4	Make use of the experience gathered in the internship in studio exercises and other subjects.
CO5	Find the individual knowledge and skill gap and take corrective measures thereof.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Conducting Literature Review	Preliminary literature review for identification of research gaps; Selection of topic, thesis statement, developing the thesis; developing research questions; detail literature reviews to understand the current state of knowledge around a particular topic.	25	CO 1
2	Developing an Argument	What is an argument, argument structure and identification, validity and strength of arguments, common fallacies of reasoning, use and abuse of language in reasoning, principles of fair play in argumentation, respecting opposing positions, understanding different modes of persuasion; emotional, moral, and rational.	25	CO 2
3	Report Writing-I	Report writing, Type; characteristics of writing technical reports. Format of Reports: Preface, acknowledgements, contents, indexing, key word indexing, introduction, body terminal section, appendices, references;	30	CO 3 & CO 4
4	Report Writing-II	Writing style - introductory, developmental, transitional, and concluding paragraphs, linguistic unity, coherence, and cohesion, descriptive, narrative, expository and argumentative writing. Proofreading and editing.	28	CO 3 & CO 4
5	Developing a Research Design	Formulation of objectives, research methods relevant for individual topic, development of research methodology elaborating methods of primary data collection.	20	CO 5

Reference Books:

- Machi, L.A. and McEvoy, B.T. (2012) The Literature Review, Six Steps to Success, Sage, New Delhi.

e-Learning Source:

- <https://irl.umsl.edu/cgi/viewcontent.cgi?article=1859&context=dissertation>
- <https://www.dissertations.se/about/teachers+professional+development/>
- <https://www.csm.edu/sites/default/files/Trehearn.pdf>
- <https://geolumina.org/geoscience-dissertation-skills/>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PSO 7
CO																		
CO 1	3	2	2	3	1	2	3											
CO 2	2	3	3	1	2	1	2											
CO 3	2	3	2	3	2	2	2											
CO 4	2	3	3	2	1	2	1											
CO 5	1	2	2	1	1	2	2											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL520	Title of the Course	Planning Studio - III	L	T	P	C
Year	II	Semester	III	-	-	12	6
Pre-Requisite		Co-requisite					
Course Objectives	<ul style="list-style-type: none"> • To Assess, Collect and Analyze the Information Requirements for the Study. • To understand management and infrastructural/ facility aspects for preparation of Sustainable Development Plan. 						

Course Outcomes	
CO1	The aim of the studio is on management and governance aspects (in line with the other core and elective courses offered in the semester).
CO2	The exercise pertains to metropolitan cities and mega cities and ranges from preparing management plans and projects related to various sectors pertaining to infrastructure, disaster risk, riverfront development etc.
CO3	Students are also required to identify and formulate projects, work out the appraisals and do the feasibility, viability and implementation mechanisms of the projects.
CO4	Students work on a case study town/city and have to visit the field for collection of data and interaction with city officials and stakeholders. Although planning continues to be an important aspect of the exercise, students are also exposed to project identification, formulation, and appraisal, financing mechanisms and institutional framework.
CO5	Students draw from the theoretical knowledge provided in the core and elective subjects related to management, finance and governance offered in the semester and translate them in their studio exercise.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Geo-Informatics Laboratory Training	The laboratory training will be conducted in accordance with the studio exercise. Introduction to Geo-informatics, introduction to Remote Sensing – Aerial and Satellite; introduction to GIS, Spatial data, and Attribute data; Satellite images as input to GIS; Collection and presentation of baseline information.	102	
2	Management and Governance Plans	<ul style="list-style-type: none"> • The focus of the studio is on management and governance aspects (in line with the other core and elective courses offered in the semester). • The exercise pertains to metropolitan cities and mega cities and ranges from preparing management plans and projects related to various sectors pertaining to infrastructure, disaster risk, riverfront development etc. • Students are also required to identify and formulate projects, work out the appraisals and do the feasibility, viability, and implementation mechanisms of the projects. • Students work on a case study town/city and have to visit the field for collection of data and interaction with city officials and stakeholders. Although planning continues to be an important aspect of the exercise, students are also exposed to project identification, formulation, appraisal, financing mechanisms and institutional framework. • Students draw from the theoretical knowledge provided in the core and elective subjects related to management, finance and governance offered in the semester and translate them in their studio exercise. • The culmination of the exercise is in the form of group presentations and studio reports. 	90	

Reference Books:

1- Dellinger, A., Validity and the Review of Literature, Reviewing the Schools, 2005.
2- Hart, C., Doing a Literature Review, Releasing the Social Science Research Imagination, 1988.
3- Taylor, G., A Student's Writing Guide: How to Plan and Write Successful Essays, 2009.
4- Colin Neville, C.Neville, The Complete Guide to Referencing and Avoiding Plagiarism, 2007.

5- Punch, Keith, An Introduction to Social Research: Quantitative and Qualitative Approaches, 2007.

6- Neuman, William, Basics of Social Research: Qualitative and Quantitative Approaches.

7- Bryman, Alan, Social Research Methods, 2008.

e-Learning Source:

- <https://journals.sagepub.com/doi/abs/10.1177/1558689807306147>
- https://www.goodreads.com/?ref=nav_hom
- https://www.cur.ac.rw/mis/main/library/documents/book_file/digital-64510d278b1fa4.23325841.pdf
- <https://libguides.hkust.edu.hk/writing/guides>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO 1	1	2	3	3	1	2	1											
CO 2	2	3	1	1	3	1	2											
CO 3	2	3	2	2	2	2	1											
CO 4	2	3	2	2	1	2	1											
CO 5	1	2	3	1	1	3	2											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL521	Title of the Course	Elective-III (Real Estate Development and Management)	L	T	P	C
Year	II	Semester	III	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> To examine the fast-changing nature of the real estate scenario and land markets in India, particularly after the July 1991 economic reforms. 						

Course Outcomes	
CO1	Develop an understanding of current real estate scenarios in markets, of housing market, laws and policies to real estate markets.
CO2	Understand trends in real estate.
CO3	Learn Laws related to real estate development and housing markets.
CO4	Learn real estate project formulation.
CO5	To demonstrate abilities for critical analysis of the existing literature on related research topics.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Developments of Land and Real Property	Process of land development, market mechanism and land use pattern cost of development, source of finance, and financial calculation for real estate developer	9	CO 1
2	Real Property Markets-I	Heterogeneity and imperfections, valuation of real property - principles and practices; private ownership and social control of land; disposal of land; land development charges and betterment levy;	10	CO 2
3	Real Property Markets-II	Land use restrictions, compensation, and requisition taxation of capital gain on land versus public ownerships, economic aspects of land policies at various levels of decision making.	9	CO 3
4	Factors Influencing Locational Decisions	Analysis of the location of specific uses like residential, industrial, commercial, and institutional in the light of location theories in intra-regional and inter-regional context; Techniques of cost benefit analysis of urban development programme.	10	CO 4 & CO 5
5	Case Studies	Case studies of real estate development in public, private, partnership sectors; Real estate as facilitator of development; Development of real estate as a tool for controlling land and property prices; Transaction and renting of real estate, Lease deeds and sale deeds, sale documents, registration; Mortgage and pledging.	10	CO 4 & CO 5

Reference Books:

- Mittal, S. (2018) The ABC of Real Estate in India: An Eye Opener Account of the Real Estate Industry in India, White Falcon Publishing, Chandigarh.
- Searle, L.G. (2013) Conflict and Commensuration: Contested Market Making in India's Private Real Estate Development Sector, International Journal of Urban and Regional Research, Vol. 38, Issue 1, pp. 60-78.
- Shatkin, G. (2013) Contesting the Indian City: Global Visions and the Politics of the Local, International Journal of Urban and Regional Research, Vol. 38, No. 1, pp. 1-13.

e-Learning Source:

- <https://www.amazon.in/ABC-Real-Estate-India/dp/9387193160>
- <https://store.whitefalconpublishing.com/products/the-abc-of-real-estate-in-india>
- <https://m.tribuneindia.com/2006/20060520/real.htm>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO																		
CO 1	1	2	3	3	2	2	1											
CO 2	3	3	1	1	3	1	2											
CO 3	2	1	2	2	2	3	1											
CO 4	3	1	2	2	1	2	1											
CO 5	1	2	3	1	1	2	2											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL522	Title of the Course	Elective-III (Participatory and Integrated Urban Development)	L	T	P	C
Year	II	Semester	III	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> The course intends to sensitize the students to the importance of participatory processes and integrated institutional arrangements for more effective, efficient, and sustainable implementation. 						

Course Outcomes	
CO1	To understand public participation and theories on citizen and community participation.
CO2	To understand the requirements for planning a participatory process.
CO3	To understand the plan implementation and governance in India.
CO4	To analyse the co-ordination in planning, understanding various kinds of public agencies.
CO5	To make the participatory and integrated urban development.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Understanding Public participation	Understanding participation, conditions for effective participation, idea of power and representation in participatory process, Arenas of participation; Brief introduction to theories on citizen and community participation such as Arnstein's ladder of citizen participation.	9	CO 1
2	Public Participation in India-I	Heterogeneity and imperfections, valuation of real property - principles and practices; private ownership and social control of land; disposal of land; land development charges and betterment levy; Requirements for planning a participatory process; evolution of community participation in development projects; Pani Panchayats.	10	CO 2
3	Public Participation in India-II	Channels of public participation in plan making, plan implementation and governance in India; Legislative provisions; mandated and claimed spaces of participation;	10	CO 2
4	Horizontal and vertical integration	Coordination in planning, understanding various kinds of public agencies involved in urban development and coordination for the purpose of plans projects and management in urban areas and regions; Current practices of cross-sectoral development, and case studies	9	CO 3 & CO 4
5	Participatory and integrated urban development – Case Studies	Based on the conceptual understanding developed in the first two parts of the course, this section will develop an understanding of the idea of Participatory and Integrated Urban Development through case studies of multi-stakeholder projects.	10	CO 4 & CO 5

Reference Books:

1. Cornwall, A. (ed.) (2011) The Participatory Reader, Zed Books, London
2. Kochi Municipal Corporation and GIZ (2019) Multi-stakeholder Ente Kochi Initiative, Kochi Municipal Corporation and GIZ India, Kochi.
3. Kumar, A. and Prakash, P. (eds.) Public Participation in Planning in India, Cambridge Scholars Publishing, Newcastle
4. Pune Smart City Development Corporation Ltd. (2016) Smart City Development Plan, Pune Smart City Development Corporation Ltd., Pune.
5. UN Habitat (2018) Leading Change: Delivering the New Urban Agenda through Urban and Territorial Planning, UN Habitat, Nairobi.

e-Learning Source:

- <https://www.amazon.com/Participation-Reader-Andrea-Cornwall/dp/1842774034>
- <https://www.amazon.co.uk/Participation-Reader-Andrea-Cornwall/dp/1842774034>
- <https://www.jesseribot.com/Projects/Local-Democracy%3A-Institutional-Choice-and-Recognition->

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO- PS O	P O 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO																		
CO 1	1	2	3	3	2	2	1											
CO 2	2	3	1	3	3	1	2											
CO 3	1	3	1	2	2	2	1											
CO 4	3	3	2	2	1	2	1											
CO 5	1	2	3	1	1	3	2											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL523	Title of the Course	Project Planning and Management	L	T	P	C
Year	II	Semester	III	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> To acquire the knowledge and skills of Project Management based on the Project Management Body of Knowledge (PMBOK). To indicate the importance of both socio-cultural and technical issues in the successful management of a project. To apply modern project management techniques and tools within a professional area of expertise. 						

Course Outcomes	
CO1	To understand the basic knowledge about project planning.
CO2	To analyze the relationship between the projects and planning issues.
CO3	To analyse the project formulation and appraisal
CO4	To identify the Project management and implementation and project evaluation and monitoring.
CO5	To understand the regulatory frameworks governing project.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Project Planning	Introduction to Projects; Nature of planning projects; Project Life Cycle; Identification of Projects	9	CO 1
2	Project Formulation and Appraisal-I	Relationship between projects and planning issues, including sectoral policy at: Local, State and National levels Project appraisal: Market analysis – Macro environment survey, survey methods, market characterisation, demand forecasting; Technical Analysis – Magnitude, processes, materials, equipment, factors of production availability, implementation schedule; suitability of the plans, layout and design, location of the project.	10	CO 1 & CO 2
3	Project Formulation and Appraisal-II	location analysis; supporting infrastructure requirements- Capital Budgeting – Estimation of costing of components; developing over project cost; Social cost-benefit analysis – UNIDO, Merles, ZOPP/GOPP, etc	9	CO 3
4	Project Management and Implementation, and Project Evaluation and Monitoring	Project characteristics - pitfalls in the management of a project; Techniques of management; Planning milestones - responsibility charts and principle responsibility, principles of activity planning; Project Implementation – methods, hurdles, facilitative factors; Project culture: line management, steering committee, the role of the project manager; Project Control: cost and time, quality - ISI standards and its application to Indian context; Introduction to Project Management Software (Ms Projects) and its usage. Types of evaluation - concurrent, ex-ante and ex-post. Methods of evaluation, techniques of evaluation, end results, Presentation of evaluation findings, Techniques of Monitoring of Development Works.	10	CO 4
5	Regulatory Frameworks Governing Projects	National Rehabilitation and Resettlement Policy (2007) - Social Impact Mitigation; National Environmental Policy (2006) – Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP).	10	CO 5

Reference Books:

- 1- A Guide to the Project Management Body of Knowledge: PMBOK® Guide (Sixth Edition)
- 2- Project Management: A Systems Approach to Planning, Scheduling, and Controlling
- 3- Project Planning and Scheduling by Gregory T. Haugan
- 4- Project Management by R.B. Khanna

e-Learning Source:

- <https://www.amazon.in/Project-Management-Approach-Scheduling-Controlling/dp/1119165350>

- <https://www.wiley.com/en-us/Project+Management:+A+Systems+Approach+to+Planning,+Scheduling,+and+Controlling,+13th+Edition-p-9781119805373>
- https://books.google.co.in/books/about/Project_Management.html?id=DvInzgEACAAJ&redir_esc=y
- https://books.google.co.in/books/about/Project_Management.html?id=xLASDgAAQBAJ&redir_esc=y

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO 1	1	3	1	2	2	2	1											
CO 2	2	3	1	3	3	1	2											
CO 3	1	3	1	2	2	2	1											
CO 4	2	1	2	3	1	2	1											
CO 5	1	2	3	1	2	3	2											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL524	Title of the Course	Introduction to Philosophy	L	T	P	C
Year	II	Semester	III	2	-	-	2
Pre-Requisite		Co-requisite					
Course Objectives	<ul style="list-style-type: none"> Major concern of philosophy is the study of ideas central to the ways we think and live. The value of many of our key concepts is often hidden from us. We take the ways we make sense of ourselves and the world for granted. We forget why truth matters or acting decently is a minimal requirement for treating others justly. 						

Course Outcomes	
CO1	To summarize the nature of various forms of reasoning.
CO2	To show knowledge of her thoughts in a logical and clear fashion.
CO3	To construct good arguments and to identify fallacies.
CO4	To explain knowledge about the key philosophical thinkers.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Our Place in the World	Is there a real world, or is everything a figment of our imagination? Do we have free will, or do our brains simply respond mechanically to stimuli? What, if anything, distinguishes right from wrong? Philosophers relentlessly pursue the fundamental questions of life, and their techniques apply to problems in any discipline or endeavor. They establish standards of evidence, provide rational methods of resolving conflicts, and create techniques for evaluating ideas and arguments.	6	CO 1
2	Logic and Ethics	This course is a survey of several major areas of Indian and Western analytic philosophy: metaphysics and epistemology, ethics, philosophy of mind, philosophy of language, philosophy of religion, and philosophy of science.	8	CO 2
3	Knowledge Production and Use-I	Students explore such concepts as the nature of the world and how we have access to knowledge of the world; moral behavior and the nature of good and evil; the relationship between minds and bodies.	4	CO 3 & CO 4
4	Knowledge Production and Use-II	The relationship between our thoughts and the external world; and how we should employ logical analysis and empirical observations to evaluate arguments	8	CO 4
5	Study of Great Thinkers	For each topic, students consider the positions of historical thinkers such as Plato, Descartes, and Hume, as well as those of contemporary philosophers such as M.K. Gandhi, B.R. Ambedkar, Amartya Sen, John Rawls and Hilary Putnam. Students reflect upon philosophical issues through debates, discussions, and formal critical essays in order to develop the analytical skills necessary for effectively evaluating arguments and thinking independently.	6	CO 4

Reference Books:

- 1- Borchet, D.M. (ed.) (2006) Encyclopaedia of Philosophy, Macmillan, Detroit.
- 2- Honderish, T. (ed.) (2005) The Oxford Companion to Philosophy, Oxford University Press, New York.
- 3- Perrett, R.W. (2016) An Introduction to Indian Philosophy, Cambridge University Press, Cambridge. Fourth Edition.

e-Learning Source:

- <https://www.amazon.in/Oxford-Companion-Philosophy-Companions/dp/0199264791>
- <https://adams.marmot.org/Record/.b10810833>
- https://books.google.co.in/books/about/The_Oxford_Companion_to_Philosophy.html?id=sI4YAAAIAAJ&redir_esc=y

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO																		
CO 1	2	3	2	2	2	2	3											
CO 2	2	3	1	3	3	3	2											
CO 3	3	3	3	2	2	2	3											
CO 4	2	3	1	3	3	3	1											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL525	Title of the Course	Planning Legislation	L	T	P	C
Year	II	Semester	IV	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> The primary objective of this course is to expose the students to urban and regional planning statutes as planning statutes foundationally impact planning practice. 						
Course Outcomes							
CO1	Students will learn about the legal processes related to construction permission and planning permissions and other physical planning related legal issues						
CO2	Students will learn about the content and process of various Constitutional Acts, Legal tools, Development tools and Bye-laws needed in planning process						
CO3	They will also go through Case study – The implications of acts at various planning levels for understanding practical issues via planning legislation						

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Concept of Law	Sources of law (custom, legislation, and precedent); meaning of the term of law, legislation, ordinance, bill, act, regulations, and bye-laws.	9	CO 1
2	Indian Constitution	Significance of law and its relationship to urban planning; benefits of statutory backing for planning schemes. Concepts and contents of Indian Constitution; Rights and their implication on planning; Fundamental provisions regarding property rights;	10	CO 2
3	Indian Legislation in Planning	Evolution of planning legislation and overview of legal tools connected with urban planning and development; model town planning laws.	9	CO 2
4	Statutory Framework for Planning and Development Law	Evolution of town planning legislation, town planning laws, town planning as a state subject, 73rd and 74th amendment and its implications for planning law, current amendments in planning and development laws.	10	CO 3
5	Planning law and its interface with other laws affecting development	Current laws related to environment, heritage, housing, real estate, property law and their interaction with planning law; PPP and contract laws; Any other Acts relevant at a particular time, for example, special investment region acts model community participation law.	10	CO 3

Reference Books:

- 1- Lakshimikanth, M. (2007) Indian Policy, Tata McGraw Hill, India
- 2- Bhattacharya, M. (2001) New Horizons of Public Administration, Jawahar Publishers and Distributors, New Delhi.
- 3- Government of India (2014) URDPFI Guidelines, Ministry of Housing and Urban Affairs, New Delhi.
- 4- Needham, B. (2006) Planning, Law and Economics: An investigation in the rules we make for using land, Routledge, London.
- 5- Mc Auslan, P. (2019) Bringing the Law Back In: Essays in Land, Law and Development, Routledge, London.

e-Learning Source:

- <https://www.flipkart.com/new-horizons-public-administration-jawahar-publishers-dist/p/itm4ef8e1724467b>
- https://uni-mysore.ac.in/sites/default/files/content/ma_pub_ad.pdf
- <https://manuu.edu.in/sites/default/files/2021-03/Syllabus-Public-Admin.pdf>
- <https://ijcrt.org/papers/IJCRT2202002.pdf>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PSO 7
CO 1	1	3	2	1	2	1	3											
CO 2	1	3	1	3	3	1	2											
CO 3	3	3	1	2	3	2	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21											
Course Code	PL526	Title of the Course	Planning Practice	L	2	T	1	P	-	C	3
Year	II	Semester	IV								
Pre-Requisite	Nil	Co-requisite	Nil								
Course Objectives	<ul style="list-style-type: none"> The main objective of this course is to familiarize the students with the nature of planning practice in the Indian context and develop an understanding of responsibility of planning professionals and inculcate ethical behavior in planners. Students will also get familiar with requirements of setting up a planning practice. 										

Course Outcomes	
CO1	Develop an understanding of Planning as a profession and Role of a Planner.
CO2	Analysis of legal frame work of planning and current planning practice in India.
CO3	Scope Of Planning Practice at Various Stages and Its Uses in Planning Firms.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Nature of Planning Practice-I	Planning as a profession and Role of a Planner, Definition of profession, planning as a profession, role of planner in the society, different roles of planner in practice; Nature of planning practice in general and in Indian context, global context, and planning practice.	9	CO 1
2	Nature of Planning Practice-II	Legal framework for planning in India, planning and development organizations, current planning practices, study of selected projects.	10	CO 2
3	Ethical Planning Practice and Planning Engagement	Human values and moral reasoning, planning practice and ethical dilemmas, resolution of ethical dilemmas, code of professional conduct, Concept of reflective and deliberative practice, Study of decision making, role of different interest groups, deliberation and negotiation large planning project or policy modification requiring approvals.	10	CO 2
4	Planning Practice Cases	This unit would focus on developing a critical reasoning and communication skills through study planning cases including planning permissions, court cases, and attending public meetings etc., application of concepts of previous unit through study of planning practice, documentation of cases	10	CO 3
5	Professional Engagement and Office Administration	Tenders, Contracts, Formulation of Project Proposals., Professional fees for different types of planning practice, setting up of planning firms, official correspondence, office management practices.	9	CO 3

Reference Books:

- 1- Barrett, C.D. (2001) Everyday Ethics for Practicing Planners, American Institute of Certified Planners, Chicago.
- 2- Kulshreshtha, S.K. (2012) Urban and Regional Planning in India: A Handbook for Professional Practice, Sage, New Delhi.
- 3- Saccoccia, S. (2016) Planning Practice, MIT Press, Massachusetts.
- 4- Thomas, H. and Healey, P. (1991) Dilemmas of Planning Practice: ethics, legitimacy, and the validation of knowledge, Aldershot, Hants.

e-Learning Source:

- <https://www.amazon.com/Everyday-Ethics-Practicing-Planners-Barrett/dp/1884829619>
- <https://www.perlego.com/book/1548906/everyday-ethics-for-practicing-planners-pdf>
- <https://journals.sagepub.com/doi/10.1177/0739456X11413601?icid=int.sj-abstract.citing-articles.8>
- <https://news.mit.edu/2016/smart-water-grid-indus-basin-0616>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO- PS O	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO																		
CO 1	2	1	2	3	2	1	3											
CO 2	2	1	3	2	3	1	2											
CO 3	3	2	3	2	1	2	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL527	Title of the Course	Development Finance	L	2	T	1
Year	II	Semester	IV	P	-	C	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> Development plans and policies get implemented through planning and development projects. Funding of these projects is critical for the implementation of plans and policies. It is in this context that this course will introduce concepts of development finance, revenue, and municipal finance. This course intends to develop a logical reasoning ability in analyzing the innovative methods of financing for urban infrastructure. 						

Course Outcomes	
CO1	Understand the working of Urban local bodies with respect to available capacity for revenue generation and expenditure.
CO2	Develop the abilities to carryout detailed comparison amongst ULB's with respect to their varied inherent potentials.
CO3	Broaden their knowledge base and pragmatic understanding of real estate urban Finance and process of revenue generation and expenditure.
CO4	Expose themselves to market forces and real-life situation to strengthen abilities in analytical studies.
CO5	To propose effective financial management systems with enhanced organizational capacity for urban reforms.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Overview of Development Finance	Understanding development finance: approaches, concepts, credit ratings; Role of municipalities and panchayats, development authorities, infrastructure and industrial development corporations, special economic zones, and special purpose vehicles.	9	CO 1 & CO 2
2	State and Municipal Finance	Central Finance Commission and state finance commissions: constitution, powers, and functions; consolidated fund of central and state; Financing municipalities and panchayats and financial categorization of sources of revenue; Reforms in municipal and panchayat finances, rationalisation of user charges, and streamlining of tax administration.	9	CO 3
3	Public Private Partnership (PPP) -I	Partnerships and alliances: concepts, need, preconditions for partnerships; Advantages of collaboration; Methods of promoting public private partnerships; Policies, statutes, regulations, and administrative procedures for forging partnerships.	10	CO 4
4	Public Private Partnership (PPP) -II	Role of government as partner, regulator, and enforcer of laws; Principles of PPP: contractual framework, selection of service provider, payment mechanism, monitoring and evaluation, risk and revenue sharing; and Models contract agreement.	10	CO 4
5	Innovative Methods for Financing Urban Development	Monetary Exaction: betterment levy, impact fees, external development charges and vacant land development tax; Land exactions: Transfer of development rights, town planning schemes, monetization of underutilized public assets; Valorization charges; Debt financing, partnership financing, financing through intermediaries, Municipal bonds, and pooled financing; Funding of development plan proposals and projects.	10	CO 5

Reference Books:

- 1- Bell, C. (2003) Development Policy as Public Finance, Oxford University Press, Oxford.
- 2- Fisher, R.C. (2018) State and Local Public Finance, Routledge, New York.
- 3- Kaushik, B. (2003) Analytical Development Economics: The Less Developed Economy Revisited, MIT Press, Cambridge, MA.
- 4- Mohanty, P.K. (2016) Financing Cities in India: Municipal Reforms, Fiscal Accountability and Urban Infrastructure, Sage, New Delhi.

e-Learning Source:

- <https://global.oup.com/academic/product/development-policy-as-public-finance-9780198773672?cc=us&lang=en&>

- <https://econpapers.repec.org/bookchap/oxpobooks/9780198773672.htm>
- <https://www.abebooks.co.uk/9780198773665/Development-Policy-Public-Finance-Bell-0198773668/plp>
- <https://www.amazon.com/Development-Policy-As-Public-Finance/dp/0198773676>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO																		
CO 1	2	3	1	2	1	2	3											
CO 2	1	3	1	3	1	3	2											
CO 3	1	3	1	2	1	2	3											
CO 4	1	3	2	3	2	3	2											
CO 5	2	1	3	2	3	2	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL528	Title of the Course	Thesis	L	T	P	C
Year	II	Semester	IV	-	-	12	6
Pre-Requisite		Co-requisite					
Course Objectives	<ul style="list-style-type: none"> The purpose of a post-graduate thesis is to take forward the literature review involving a deep study of theories and frameworks and develop elegant research questions. It is expected that a post-graduate student is clearly able to explain how a piece of research adds new knowledge to the existing body of knowledge in a field and show its practical significance to the profession of planning. Without a clearly defined purpose and strong theoretical grounding, the thesis is fundamentally flawed. 						

Course Outcomes	
CO1	Writing a thesis identifying and analyzing the issues following research principles and suggest planning imperatives
CO2	Arrive at a spatial planning solution preceded by an extensive and intensive analysis of socio- economic, physical, institutional, and statutory aspects

Content	
The purpose of a post-graduate thesis is to take forward the literature review involving a deep study of theories and frameworks and develop elegant research questions. It is expected that a post-graduate student is clearly able to explain how a piece of research adds new knowledge to the existing body of knowledge in a field and show its practical significance to the profession of planning. Without a clearly defined purpose and strong theoretical grounding, the thesis is fundamentally flawed.	
Reference Books:	
1-	Booth, W.C., Colomb, G., Williams, J.M., Fitzgerald, W. (2016) The Craft of Research, University of Chicago Press, Chicago.
2-	Eco, U. (2015) How to Write a Thesis, MIT Press, Massachusetts.
3-	Oliver, P. (2008) Writing your Thesis, Sage, New Delhi.
e-Learning Source:	
•	https://www.amazon.in/Writing-your-Thesis-Study-Skills/dp/8178299186
•	https://research.com/research/how-to-write-research-methodology
•	https://books.google.co.in/books

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO- PS O	P	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PS	PS	PS	PS	PS	PS
	O	2	3	4	5	6	7	8	9	10	11	12	O1	O2	O4	O5	O6	O7
CO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
CO 1	1	2	3	1	3	2	1											
CO 2	3	2	1	2	2	2	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL529	Title of the Course	Elective-IV (Urban and Regional Planning in India)	L	T	P	C
Year	II	Semester	IV	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> By providing an overview of spatial planning India after 1947, the major concern of this course is to acquaint students with the nature of planning by highlighting its chief features. This course is designed as a generic course because it is aimed at students who may or may not be spatial planners. 						

Course Outcomes	
CO1	Understand basic vocabulary of planning.
CO2	Identify dynamics of cities and initiatives to resolve important physical planning problems
CO3	Appreciate responsibility of planner and importance of physical planning in development process.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	What is Planning and who are the Planners	Various meanings of the term planning, distinction between land use planning and spatial planning; Goals and objectives of planning, orthodoxies of planning; Planning at various spatial scales; Planning challenges; Planners and their different roles.	9	CO 1
2	History of Planning before 1991	Planning in the central Five-Year Plans; Planning guidelines: Urban Plans Formulation and Implementation (URDPFI) Guidelines 1996; Story of master plan preparation and their implementation or lack of it; Planning institution building prior to 1990s; Programmes for planning like IDSMT, etc.	10	CO 2
3	Current Nature of Planning-I	Mission mode planning versus Plan based planning, JNNURM, SEZs, SCM; Planning in a globalized and networked India.	9	CO 2
4	Current Nature of Planning-II	Planning Guidelines: Urban and Regional Development Plans Formulation and Implementation (URDPFI) Guidelines- 2015, Shyama Prasad Mukherji RURBAN Mission, 2016; Sustainable Development goals and their relationship with spatial planning.	10	CO 2
5	Plans and Policies	Types, substance, and dimensions of various kinds of development plans; Rethinking about development plans; Do we really need development plans; Planning policies versus economic policies; Politics and spatial planning; Spatial plans for rural settlements; Integration of spatial and economic plans.	10	CO 2 & CO 3

Reference Books:

- 1- King, A. (1976) Colonial Urban Development: Culture, Social Power, and Environment, Routledge and Kegan Paul, New York.
- 2- Kumar, A., Sanjeev, V., and Prakash, P. (2020) City Planning in India, 1947-2017, Routledge, New York.

e-Learning Source:

- https://www.researchgate.net/publication/342252824_City_Planning_in_India_1947-2017
- <https://www.routledge.com/City-Planning-in-India-19472017/Kumar-Vidyarthi-Prakash/p/book/9781138226012>
- <https://www.taylorfrancis.com/books/mono/10.4324/9781003055969/city-planning-india-1947%E2%80%932017-ashok-kumar-sanjeev-vidyarthi-poonam-prakash>
- https://books.google.co.in/books/about/City_Planning_in_India_1947_2017.html?id=onBizQEACAAJ&redir_esc=y

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PS O7
CO 1	3	1	3	3	2	1	3											
CO 2	2	1	3	2	1	3	2											
CO 3	2	1	3	1	2	1	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL530	Title of the Course	Elective-IV (Sustainable Development)	L	T	P	C
Year	II	Semester	IV	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> To know the sustainable development as a pattern of economic growth in which resource use aims to meet human needs while preserving the environment. To know the sustainable enterprise and innovative sustainable development policy. To know the global development and environmental challenges. 						

Course Outcomes	
CO1	Study the basic concepts of sustainable development in urban planning.
CO2	Identify the Strategies of sustainable development of Urban & Regional Lvl. and initiatives to resolve important physical planning problems.
CO3	Responsibility of Urban planner and its importance of sustainable development.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Overview of Sustainable Development	Sustainable Development: Basic Concepts- Definition and Criteria- challenges of sustainability perspectives of sustainable development- stakeholders of sustainable development- issues in sustainable development policies.	10	
2	Social Sustainability	Sustainable Development and social exclusion and impact among socially excluded and marginalized sections: Dalits, Adivasis, Religious Minorities, Women, Transgender, Differently Aabled, HIV-Aids victims, Migrants, and other marginalized groups.	10	
3	Strategies for Sustainable Development	Strategies for sustainable development- Public-Private Partnership- social Action- community based development and maintenance- Goals of sustainable development-Institutions for sustainable development.	9	
4	Liberalization and Development	Process of Sustainable Development in contemporary world: Developed, Developing and Third world countries, its impacts on sector wise, interface between Liberalization, Privatization and Globalization, advantages, and challenges of Globalization in India.	9	
5	Social Welfare Planning for Sustainability	Social Justice: Debates on Social Justice, Thinkers of Social justice: Gandhi, Nehru, Ambedkar, Periyar, Phule and Marxist Perspectives of social justice. Components of Social Justice: Constitutional Rights Fundamental Rights and Duties, Directive Principles of State Policy, Human Rights, Gender Justice.	10	

Reference Books:

- 1- Jagdish Bhagwati, In Defense of Globalization, The 2005 Angelo Costa Lecture, Rome.
- 2- Deepak Nayyar, Liberalization and Development, Oxford University Press, Delhi, 2008.
- 3- Joseph E. Stiglitz, Globalization and Its Discontents, WW Norton and Company 2002, New York
- 4- "Discrimination and Justice: Beyond Affirmative Action", Economic and Political Weekly, Volume XLVI, Number 42, 15 October 2011, pp.52-59
- 5- "The Millennium Development Goals Beyond 2015: Old Frameworks and New Constructs", Journal of Human Development and Capabilities, Volume 14, Issue 3, August 2013.
- 6- Choudry, Paul. Social Welfare Administration, Atma Ram & Sons, Delhi, 1979.
- 7- Dubey,S.N. Administration of Social Welfare Programs in India, Somaiya Publication, Bombay.Bose, A.B. Social Welfare Planning in India, U.N.Publication, Bangkok
- 8- Gangrade,K.D. Social Legislation in India, Vol. I & II. Ministry of Urban Development (2006) National Urban Information System, Ministry of Urban Development, New Delhi
- 9- Weng, Q. (2010) Remote Sensing and GIS Integration: Theories, Methods, and Applications, McGraw Hill, New York.

e-Learning Source:

- <https://www.amazon.com/Participation-Reader-Andrea-Cornwall/dp/1842774034>
- <https://www.amazon.co.uk/Participation-Reader-Andrea-Cornwall/dp/1842774034>
- <https://www.jesseribot.com/Projects/Local-Democracy%3A-Institutional-Choice-and-Recognition->
- <https://e-space.mmu.ac.uk/620372/1/Citizen%20Participation.pdf>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PSO 7
CO 1	2	3	2	2	2	2	3											
CO 2	2	3	1	3	1	3	1											
CO 3	1	3	3	3	1	3	2											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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Integral University, Lucknow

Effective from Session: 2020-21							
Course Code	PL531	Title of the Course	Indian Constitution	L	T	P	C
Year	II	Semester	IV	2	1	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	<ul style="list-style-type: none"> To make students aware about the Indian Constitution. 						

Course Outcomes	
CO1	To demonstrate knowledge about the basic structure and features of the Constitution of India.
CO2	To develop a deeper understanding and knowledge about Union Government.
CO3	To develop a deeper understanding and knowledge about State Government.
CO3	To develop a deeper understanding and knowledge about Local Administration.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	The Constitution - Introduction	The History of the Making of the Indian Constitution: Preamble and the Basic Structure, and its interpretation, Fundamental Rights and Duties and their interpretation, State Policy Principles.	9	CO 1
2	Union Government	Structure of the Indian Union, President – Role and Power, Prime Minister and Council of Ministers, Lok Sabha and Rajya Sabha.	10	CO 2
3	State Government	Governor – Role and Power, Chief Minister and Council of Ministers, and State Secretariat.	10	CO 3
4	Local Administration	District Administration, Municipal Corporation, and Zila Panchayat.	10	CO 4
5	Election Commission	Role and Functioning, Chief Election Commissioner, and State Election Commission.	9	CO 2 & CO 3

Reference Books:

1. The Transformative Constitution: A Radical Biography in Nine Acts, by Gautam Bhatia.
2. Ambedkar's Preamble: A Secret History of The Constitution of India, by Aakash Singh Rathore.
3. Citizenship and its Discontents: An Indian History by Niraja Gopal Jayal.
4. Republic of Rhetoric: Free Speech and the Constitution of India, by Abhinav Chandrachud.
5. A People's Constitution: The Everyday Life of Law in the Indian Republic, by Rohit De.

e-Learning Source:

- https://www.researchgate.net/publication/335022177_The_school_education_system_in_India_An_overview
- [https://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%20I\(2\).pdf](https://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%20I(2).pdf)
- <https://dse.education.gov.in/rte>
- <https://www.constitution.org/cons/india/const.html>
- <http://www.legislative.gov.in/constitution-of-india>
- <https://www.sci.gov.in/constitution>
- <https://www.toppr.com/guides/civics/the-indian-constitution/the-constitution-of-india/>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO- PSO CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O4	PS O5	PS O6	PSO 7
CO1	1	2	1	3	1	2	3											
CO2	2	3	2	2	3	3	1											
CO3	1	2	3	3	1	1	2											
CO4	3	1	1	2	3	3	3											

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Name & Sign of Program Coordinator	Sign & Seal of HoD
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