

**MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR**  
**DEPARTMENT OF ARCHITECTURE AND PLANNING**

Structure of M.Plan scheme as per R & R manual of PG Programmes

Min. credits through course work: 34

Min. credits through research/project: 32

Distribution of courses: Core=45-55%, Elective=45-55%

Course Code	Name of Subject	Credits	Teaching Hours			Exam Duration		Relative weightage				
			L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
<b>I SEM. M.PLANNING for Full Time</b>												
ART601	Planning Theory and Legislation	3	2	1	0	2	-	30	-	20	50	-
ART603	Planning Techniques and Statistical Analysis	3	2	1	0	2	-	30	-	20	50	-
ART605	Urban Infrastructure Planning	3	2	1	0	2	-	50	-	20	30	-
ART607	Housing	3	2	1	0	2	-	50	-	20	30	-
ART609	Urban Management and Governance	3	2	1	0	2	-	30	-	20	50	-
ARP611	Planning Studio-I (Area Planning)	4	0	0	8	-	-	150	-	-	-	100
	<b>Total</b>	<b>19</b>	<b>10</b>	<b>05</b>	<b>08</b>							
<b>II SEM. M.PLANNING for Full Time (electives offered by the Department)</b>												
ARP602	Preparing Master Plan for Special Areas	4	0	0	08	-	-	150	-	-	-	100
ART604	Urban Transportation Planning	3	2	1	0	2	-	50	-	20	30	-
ART606	Community Planning	3	2	0	2	2	-	50	-	20	30	-
ART610	Application of Geo-informatics in Urban Planning	3	2	1	0	2	-	50	-	20	30	-
ART616	Planning for Informal Sector	3	2	1	0	2	-	50	-	20	30	-
ART618	Urban Economics and Land Management	3	2	1	0	2	-	30	-	20	50	-
ART620	Planning for Disaster Prone Areas	3	2	1	0	2	-	50	-	20	30	-
ART626	Urban Dynamics	3	2	1	0	2	-	50	-	20	30	-
	<b>Total</b>	<b>16-20 Credits</b>										
<b>In addition to these there may be other Open Electives also to be offered subsequently</b>												
<b>III SEM. M.PLANNING for Full Time</b>												
ARD701	Dissertation	10	-	04		-	-	250				100
ARS703	Seminar	4	-	04		-	-	50	-	20	30	-
ARP705	Studio Presentation: Planning for Region/ Metropolitan Area	4		-	08			150	-	-	-	100
	<b>Total</b>	<b>18</b>		<b>08</b>	<b>08</b>							
<b>IV SEM. M.PLANNING for Full Time</b>												
ARD702	Dissertation	16	-	-	04	-	-	450				250
	<b>Total</b>	<b>16</b>	-	-	<b>04</b>							

A compulsory professional training of 6 weeks has to be undertaken during summer vacations in between 2<sup>nd</sup> and 3<sup>rd</sup> semester and shall be evaluated in **ARS703**. Subjects bearing code **ARP611, ARP602, ARD701, ARD702 and ARP705** shall have oral viva voce examination conducted by a joint panel of two experts from outside the Institute along with concerned faculty members. This is in line with the recommendations of DPGC dated 6<sup>th</sup> July, 2012 and subsequently approved by SPGB.

**Satish Pipralia**  
**Convener DPGC**

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ART601</b>	<b>Course Name: Planning Theory and Legislation</b>
<b>Credit: 3</b>	<b>L-T-P: 2-1-0</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course:</b>	
<b>Syllabus</b>	
<b>Objective:</b> Review of theoretical and legislative framework and related issues in urban planning	
<b>Contents:</b>	
<ul style="list-style-type: none"> <li>• Development of planning thought and principles from that of ancient times and its relevance in modern context, historical determinants, mobility, socio-cultural beliefs, climate, technology, political power, geographical location etc. Settlement types and patterns; ancient medieval renaissance and industrial age, Planning concept in India, ancient, Pre independence and post independence development.</li> <li>• City is a living spatial entity. Ekistics and the city, contribution of Ebenezer Howard, Geddes, Mumford and others in city planning.</li> <li>• Aims and objectives of physical planning, levels of planning in India and their inter-relationships. Physical nature and characteristics of urban environment and its components. Land uses -physical structure and relationship of parts of the city.</li> <li>• Development plan, types, scope and objectives. Local /area and regional levels. Models of planning process, components of settlements. Models of urban structure.</li> <li>• Systems approach and physical planning. Mixed scanning and approach to land use planning. Introduction to spatial planning at regional level. Choice theory and advocacy planning and their relevance. Action planning and its application in Indian context.</li> <li>• Comprehensive Planning.</li> </ul>	
<b>References:</b>	
<ul style="list-style-type: none"> <li>• Sandercock, L., <i>Making the Invisible Visible: A Multicultural Planning History</i>, Pub. by University of California Press, 1998.</li> <li>• Mcloughlin, J.B., <i>Urban and regional planning: A systems approach</i>, Pub. by Faber and Faber, London, 1969.</li> <li>• Faludi, <i>A reader in planning theory</i>, Pub. by Pergamon Press.</li> <li>• Peter, G.H., <i>Urban and regional planning</i>, Pub. by Tewdwar&amp; John M, 1975.</li> </ul>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ART603</b>	<b>Course Name: Planning Techniques &amp; Statistical Analysis</b>
<b>Credit: 3</b>	<b>L-T-P: 2-1-0</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course:</b>	
<p><b>Syllabus</b></p> <p><b>Objective:</b> To understand tools and techniques in urban planning.</p> <p><b>Contents:</b></p> <ul style="list-style-type: none"> <li>• Introduction to various planning techniques used since historic times.</li> <li>• Methods of identifying urban and regional problems, setting of goals, objectives and priorities. Performance standards, spatial standards and standards of utilities. Cluster and factor analysis methods.</li> <li>• Process and method for survey and research, methodology of conducting survey and planning graphics.</li> <li>• Basic quantitative methods in collecting data, analysis, projecting and presenting data on various land uses.</li> <li>• Techniques and tools for development control, land values and density pattern.</li> <li>• Introduction to (I) Techniques of system simulation, Garin and Lowry Model; (II) Threshold Analysis, Preparation of Urban and Regional Development plans-various approaches.</li> <li>• Problems of urban renewal, study of various techniques.</li> </ul> <p><b>References</b></p> <ul style="list-style-type: none"> <li>• Kothari, C.R, <i>Research Methodology – Methods and Techniques</i>, Pub. by New age international Publishers,1990.</li> <li>• Bracken, I., <i>Urban Planning Methods: Research and Policy Analysis</i>, Pub. by Routledge, 2007.</li> <li>• Shen, Z., <i>Geospatial Techniques in Urban Planning</i>, Pub. by Springer, 2007.</li> <li>• Ansari, J.H.; Mahavir, <i>Reading Material on Planning techniques</i>, Pub. by ITPI, 2000.</li> </ul>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ART605</b>	<b>Course Name: Urban Infrastructure Planning</b>
<b>Credit: 3</b>	<b>L-T-P: 2-1-0</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course:</b>	
<b>Syllabus</b>	
<p><b>Objective:</b> Quantitative and qualitative assessment of infrastructure provisions and selected methodologies for suitable provisions and implementation.</p>	
<p><b>Contents:</b></p> <ul style="list-style-type: none"> <li>• Concepts and theories of design and operation of urban services and network systems - water supply, sewage disposal, drainage refuse collection, recycling and disposal, electricity network and telephone network, health care and education, police protection and fire fighting, general welfare. Study of relevant codes, norms and by laws. Operational planning for emergency evacuation in urban areas,</li> <li>• The network and service systems - components, inter relationship requirements and need of appropriate technology. Effects of density, land use and urban structure on design of network and service systems.</li> <li>• Cost recovery, economics of urban service system and networks.</li> <li>• Infrastructure finance concepts and principles of emerging urban infrastructure finance and management issues such as BOO, BOT, BOOT etc.</li> </ul>	
<p><b>References:</b></p> <ul style="list-style-type: none"> <li>• Ghai, D. P.; Khan A. R., <i>The basic need approach to development</i>, Pub. by ILO, Geneva, 1977.</li> <li>• Bijlani, H.U.; Rao, P.S.N., <i>Water supply and sanitation in India</i>, Pub. by Oxford and IBH Publishing, New Delhi, 1990.</li> <li>• Lyer, R.R., <i>Towards Water Wisdom - Limits, Justice, Harmony</i>, Pub. by Sage Publications, New Delhi, 2007.</li> <li>• <i>Manual on Sewerage and Sewage Treatment</i>, Ed. I &amp; II. 601, Pub. by CPHEEO, New Delhi, 1980.</li> <li>• Bandela, N.N; Tare, D.G., <i>Municipal solid waste management</i>, Pub. by B.R. Publishing, 2009.</li> <li>• Singh, S., <i>Solid waste management in resettlement colonies in Delhi</i>, Pub. by Book well Publications, 2006.</li> </ul>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ART607</b>	<b>Course Name: Housing</b>
<b>Credit: 3</b>	<b>L-T-P: 2-1-0</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course:</b>	
<b>Syllabus</b>	
<p><b>Objective:</b> To understand issues and delivery mechanism in housing.</p> <p><b>Contents:</b> Definition of housing and community. Housing as integral component of comprehensive urban and regional development. Housing and community form as shaped by physical, technological, socio-economic, demographic and political factors. Role of housing in social and economic development. Housing as an index for social welfare. Housing in relation to stages of development particularly as related to developing economy.</p> <ul style="list-style-type: none"> <li>• Micro and macroeconomic view of the housing sector. Housing situation in India in quantitative and qualitative terms. Housing statistics. Obstacles to provision of housing in India and emerging issues and priorities in urban and rural housing.</li> <li>• Basic considerations for the formulation of viable housing policy and programmes in consonance with availability of resources and feasibility of implementation and management. Housing policy options in developing communities.</li> <li>• Housing programmes in five year plans of India. Social housing programmes, Role of private and cooperative sectors in housing. Housing in the informal sector. Problems of slums and squatting.</li> <li>• Public housing programmes, site and services and slums upgradation approach. The concept of housing standards and issues involved in formulation of standards. Housing and its relation to non-residential components of settlement.</li> <li>• Socio cultural perspective of housing. Housing and family life. Principles of community organization. Social sources of residential satisfaction. Community participation in design and implementation of housing programmes.</li> <li>• Public housing agencies in India at National, State and Settlement level. Their functions and programmes</li> </ul> <p><b>Exercises:</b> Housing Studio: An exercise of design of housing layout shall be given in addition to all other assignments.</p> <p><b>References:</b></p> <ul style="list-style-type: none"> <li>• Chiara, J.; Panero, J.; Zelnik, M., <i>Time Saver standards-Housing</i>, Pub. by McGraw-Hill, 1992</li> <li>• Beyer, Glen H., <i>Housing: A factual analysis</i>, Pub. by Macmillan, 1958.</li> <li>• Revi, A., <i>Shelter in India – Sustainable developmental series</i>, Pub. by Stosius Inc/Advent Books Division, 1990.</li> <li>• Douglas F., <i>Sustainable Urbanism: Urban design with nature</i>, Pub. by Wiley, 2007.</li> </ul>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ART609</b>	<b>Course Name: Urban Management and Governance</b>
<b>Credit: 3</b>	<b>L-T-P: 2-1-0</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course:</b>	
<b>Syllabus</b>	
<p><b>Objective:</b> To study issues in urban policies, practices, governance and their inter- relationship.</p> <p><b>Contents:</b></p> <ul style="list-style-type: none"> <li>• Introduction, need and relevance of urban governance.</li> <li>• An overview of urban governance. Chronological development form pre independence era.</li> <li>• Organizational setup and institutional interrelationship with respect to fiscal and administrative powers/ duties.</li> <li>• Tools for urban governance.</li> <li>• E-governance and emerging issues of urban governance.</li> <li>• Governance system at different levels.</li> <li>• Role of NGO's, public sector, private sector and social institutions.</li> <li>• 73<sup>rd</sup> and 74<sup>th</sup> Constitutional Amendment Act.</li> </ul> <p><b>References:</b></p> <ul style="list-style-type: none"> <li>• Mishra, A. K., <i>Governance and Planning</i>,</li> <li>• Working papers from National Institute of Urban Affairs, Centre for Good Governance, United Nations Centre for Human Settlement and National Institute of Public Finance and Policy.</li> </ul>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ARP611</b>	<b>Course Name: Planning Studio-I (Area Planning)</b>
<b>Credit: 4</b>	<b>L-T-P: 0-0-8</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course:</b>	
<b>Syllabus</b>	
<p><b>Objective:</b> To understand the physical planning process through illustrative study.</p> <p><b>Contents:</b></p> <p>I. MINOR PROBLEM:</p> <p>Study and Design of lay out for an Industrial, Commercial, Institutional areas etc. on an existing site of about 10 hectares land .The items to be submitted may include.</p> <ul style="list-style-type: none"> <li>(I) Site analysis clearly indicating all physical features, infrastructural facilities and landscape features, potentials and problems on standard scale.</li> <li>(II) Design of Typed units-All plans and at least, two elevations and one section on suitable scale.</li> <li>(III) Layout of buildings and roads.</li> <li>(IV) Layout showing network services trunk sewer, main waterlines and refuse collection points, etc.</li> <li>(V) Layout showing landscaping proposal along with buildings and roads all on suitable scale</li> <li>(VI) Report containing introduction site analysis, area calculation s etc. followed in design process.</li> </ul> <p>II. MAJOR PROBLEM:</p> <p>Study of an existing Town for its Urban Development and Planning. The proposal may include</p> <ul style="list-style-type: none"> <li>(I) An existing land uses map indicating all its subcategories and extent and nature of use/ activity.</li> <li>(II) A map showing the future proposal as given in the development plan along with all facts and figures.</li> <li>(III) Analysis of standards adopted in the Development Plan regarding the various land uses, with suggestion of improvements and various techniques etc.</li> <li>(IV) A comprehensive report containing introduction, reasons for selection of the Town and the planning alternatives with analysis, calculations, observations and recommendation etc.</li> </ul> <p><b>References:</b> Past studies and project reports</p>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ARP602</b>	<b>Course Name: Preparing Master Plan for Special Areas</b>
<b>Credit: 4</b>	<b>L-T-P: 0-0-8</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course: ARP611: Planning Studio-I (Area Planning)</b>	
<p><b>Syllabus</b></p> <p><b>Objective:</b> Comprehensive and inclusive study for preparation of Master plans for urban areas.</p> <p><b>Contents:</b></p> <p><i>I. Minor Problem</i></p> <ul style="list-style-type: none"> <li>- Planning evaluation and appraisal of small &amp; medium town/ central metropolitan areas/business districts/residential/industrial areas/ schemes</li> <li>- Identify and explain the objectives of the problem</li> <li>• Surveys conducted for the preparation of plan</li> <li>• Growth -physical, socioeconomic, growth potentials and constraints</li> <li>• Evaluation of policy related to any one land use</li> <li>• Planning proposals</li> <li>• Implementation procedures and development control regarding land use selected by you</li> <li>• Appraisal of plan in typed report, hard bound A-4 size</li> </ul> <p><i>II. Major problem</i></p> <ul style="list-style-type: none"> <li>• Preparation of Zonal development plans for small &amp; medium town/ central metropolitan areas/business districts/residential/industrial areas schemes with</li> <li>• Surveys</li> <li>• Data collection</li> <li>• Maps preparation</li> <li>• Planning proposals &amp; analysis, calculation, recommendations</li> </ul> <p><b>References:</b> Project reports, Development Plans, Master Plans of different cities.</p>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ART604</b>	<b>Course Name: Urban Transportation Planning</b>
<b>Credit: 3</b>	<b>L-T-P: 2-1-0</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course:</b>	
<b>Syllabus</b>	
<p><b>Objective:</b> To understand the concepts and techniques for transportation network with special reference to urban areas.</p>	
<p><b>Contents:</b></p> <ul style="list-style-type: none"> <li>• Evaluation of urban structure: Transport system, infrastructure and management, transport systems and their types, design and operating characteristics, urban road hierarchy, planning, and management criteria for road and junction improvements, arterial improvement techniques.</li> <li>• Transport survey and studies: study area definitions, survey and their types, sampling methods, survey techniques, programming and processing of travel data, analysis and interpretation of traffic studies.</li> <li>• Transportation Planning Process and analytical techniques: Techniques for urban structures analysis, Urban travel characteristics, urban transport interrelationship, transport planning process and modeling, scenario building and their analysis.</li> <li>• Traffic management, mass transit system: Problems and prospects, tramways, trolley buses, LRS and RTS operation characteristics, planning transit systems. Management of transport systems: existing organizational and legal framework, traffic and environmental management techniques. Review of existing traffic management schemes in Indian cities.</li> <li>• Transport and environment: Traffic noise, factor affecting noise statement measures, standards, air pollution standards, traffic safety, accident reporting and recording systems, factors affecting road safety , transport planning for target groups, children, adults , handicapped and women . Norms and guide lines for highway landscape, street lighting types, standards and design considerations.</li> <li>• Economics evaluation: pricing and funding of transport services and systems, economic appraisal of highway and transport projects. Techniques for estimating direct and indirect road user costs and benefit value of time.</li> </ul>	
<p><b>References:</b></p> <ul style="list-style-type: none"> <li>• Meyer, M. D.; Miller, E. J., <i>Urban Transportation Planning: A Decision-Oriented Approach</i>, Pub. by McGraw-Hill, 2001.</li> <li>• Black, A., <i>Urban Mass Transportation Planning</i>, Pub. by McGraw-Hill, 1995.</li> <li>• Weiner, E., <i>Urban transportation planning in the United States: An historical overview</i>, Technical Report, 1986.</li> <li>• Indian Roads Congress Codes.</li> </ul>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ART606</b>	<b>Course Name: Community Planning</b>
<b>Credit: 3</b>	<b>L-T-P: 2-0-2</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course:</b>	
<b>Syllabus</b>	
<p><b>Objective:</b> To understand the concepts and strategies for planning and development.</p> <p><b>Contents:</b></p> <ul style="list-style-type: none"> <li>• Sustainable community: Definition, concepts and models</li> <li>• Models, Theories, Policies and practices at global level, Provisions in National and State Five Year Plan and city master plans, etc. Action programs initiated Feasibility and assessment of implementation of existing policies and action programs.</li> <li>• Projections and forecasting, (Measuring Community Change, Appreciative Inquiry, Asset Mapping, Models of Community Visioning, Traditional Planning Strategies, Advocacy Planning, Regional and Multi-community Development Approaches, Models of Community Action, Building a Community Action Model)</li> </ul> <p><b>Exercises:</b></p> <ul style="list-style-type: none"> <li>• Reading and discussion on papers and research work on community planning</li> <li>• Community Studies, field and literature study of anthropological and ethnocentric basis of community character and issues.</li> <li>• Analysis and appraisal of international and local community development Initiatives</li> </ul> <p><b>References:</b></p> <ul style="list-style-type: none"> <li>• Filippis J.; Saegert S., <i>The Community Development Reader</i>, Pub. by Routledge, New York, 2008.</li> <li>• Lees L.; Slater, T.; Wyly, E., <i>Gentrification</i>, Pub. by Routledge, New York, 2008.</li> <li>• Gary P.; Anna L., <i>Asset Building and Community Development</i>, Pub. by Sage Publications, 2001.</li> <li>• Phillips R.; Pittman R. H., <i>An introduction to Community Development</i>, Pub. by Routledge, 2008.</li> <li>• Brooks M. P., <i>Planning Theory for Practitioners</i>, Pub. by APA Planners Press, 2002.</li> </ul>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ART610</b>	<b>Course Name: Application of Geo-informatics in Urban Planning</b>
<b>Credit: 3</b>	<b>L-T-P: 2-1-0</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course:</b>	
<b>Syllabus</b>	
<p><b>Objective:</b> To apply Geo-information techniques in planning and development.</p> <p><b>Contents:</b></p> <p><b>Unit–1. Application of Geoinformation Tools in Landuse Classification System and Slum Mapping</b></p> <p><b>1.1. Urban land use classification:</b> Acquisition of satellite data and Topographic Sheet, Pre-field work, Ground truth Data collection and field work , Post Field work, Selection of delineation Unit, adoption of Land use Land cover Classification System (three tier, two tier or one tier).</p> <p><b>1.2. Slum Mapping:</b> Reconnaissance Survey of Physical characteristics of Slum, Test Various Pixel Based classification, Texture Analysis, Visual Interpretation: Onscreen Digitization (based on pattern, shape, density, colour and Association), Ground Truthing , Compression Slum Data of the city, Comparison with Ground truth Data.</p> <p><b>Unit 2. Change Detection Technique and its application in Urban Change Detection, Urban Sprawl Study</b></p> <p>Acquisition of Satellite data on Spatio-temporal basis, Georeferencing and Geocoding, Extraction of the Study area, Image Classification, Overlaying &amp; Change Detection using suitable change detection technique, Landuse change detection Analysis and Modeling, Urban Growth and Map Updation.</p> <p><b>Unit–3. Application of Geoinformation Tools for Master Plan/new town development area</b></p> <p>Generation of Spatial Database, Optimal Land Suitability analysis, Identifying Landuse design Strategy, Alternative Conceptual Landuse Plan, - Selection of the optimal Concept- Draft of Landuse Plan -Phase development Landuse Plan -Landuse Control and Formulation Plan. A Cases Study of Existing Master Plan Prepared Using RS and GIS Technique.</p> <p><b>Unit – 4: Application of Geoinformation Tools for Urban Utility Services</b></p> <p>Description of Urban services and utilities, development of Geo - Spatial Databases, Data Acquisition - Spatial &amp; Attribute data, Spatial Database Management Systems,</p> <p><b>Method:</b> Point Pattern Analysis, Line Pattern Analysis, Polygon Pattern Analysis, Vector Analysis, Surface Analysis, Digital Image Processing and classification, Spatial decision support systems, Modeling in utility applications with Case Study of Urban Utility Services like Water Supply and Sewerage System, Transport Planning , Electricity and Gas Supply, Solid Waste Management, Accessibility of the Physical , Social infrastructure and Tourism Infrastructure.</p>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ART616</b>	<b>Course Name: Planning for Informal Sector</b>
<b>Credit: 3</b>	<b>L-T-P: 2-1-0</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course:</b>	
<b>Syllabus</b>	
<p><b>Objective:</b> To study the significance of informal sector in an urban area and its integration in planning process.</p>	
<p><b>Contents:</b></p> <ul style="list-style-type: none"> <li>• Significance and role of Urban Informal Sector through history and independent India.</li> <li>• Determinants of Urban Informal Sector. Its' Socio-Economic and Geo-Political significance.</li> <li>• Urban Informal Sector as a by-product of formal planning process.</li> <li>• Urban Informal Sector's impact on contemporary planning &amp; development of urban settlements by way of its size, feasibility, contribution to urban social infrastructure.</li> <li>• Attempts to recognize and legalize urban informal sector and bringing it to the fold of planning process and achievements as a result thereof.</li> <li>• Case studies in Urban Informal Sector and establishing their operational requirements. Review of available facts and figures, their interpolation and assessment to establish future trends.</li> <li>• Enquiry into provisions at planning levels for defending urban informal sector.</li> <li>• Identification of projects and their detailing related to informal sector.</li> </ul>	
<p><b>References:</b></p> <ul style="list-style-type: none"> <li>• Status Papers on Urban Poverty by Ministry of Urban Development, GOI.</li> <li>• UN Reports of Urban Poverty Alleviation Programs, Human Development.</li> <li>• Census Reports on Urban Informal Sector.</li> <li>• Urban Informal Sector based Development Plans for Master Plans.</li> </ul>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ART618</b>	<b>Course Name: Urban Economics and Land Management</b>
<b>Credit: 3</b>	<b>L-T-P: 2-1-0</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course:</b>	
<b>Syllabus</b>	
<b>Objective:</b> To understand land related issues and their applicability in urban planning.	
<b>Contents:</b>	
<ul style="list-style-type: none"> <li>• Importance of economics of Urban Development and Planning. General introduction to principles of economics and public finance.</li> <li>• Project development cost. Economic principles of land use pattern and land values.</li> <li>• National five-year plans; appraisal and economic development in relation to regional and urban development.</li> <li>• Economic base of cities and regions and their inter-dependency.</li> <li>• Industrial location policies, any other economic activity base policies and their impact on urban development.</li> <li>• Role of land economics in preparation of Urban Development Master plans.</li> <li>• Other relevant case studies of Urban Land Economics</li> </ul>	
<b>References:</b>	
<ul style="list-style-type: none"> <li>• Jowsey, E.; Harvey J., <i>Urban Land Economics</i>; Pub. by Palgrave Macmillan, 2003.</li> <li>• Ely, R. T.; Wehrwein, G. S., <i>Land Economics</i>, Pub. by University of Wisconsin Press, 2000.</li> <li>• Goldberg, M.; Chinloy, P., <i>Urban Land Economics</i>, Pub. by John Wiley &amp; Sons Inc., 1984.</li> <li>• Drabkin, H. D., <i>Land Policy and Urban Growth</i>, Pub. by Pergamon Press, 1977.</li> <li>• Timmons, J. F.; Murray, W. G., <i>Land Problems and Policies</i>, Pub. by Literary Licensing, 2012.</li> <li>• Iyyer, C., <i>Land Management: Challenges and strategies</i>, Pub. by Global India Publications, 2009.</li> <li>• Lall, S.V.; Freire, M.; Yuen, B.; Rajack, R.; Helluin, J.J., <i>Improving Land management for Successful Urbanization</i>, Pub. by Springer, 2010.</li> </ul>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ART620</b>	<b>Course Name: Planning for Disaster Prone Areas</b>
<b>Credit: 3</b>	<b>L-T-P: 2-1-0</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course:</b>	
<p><b>Syllabus</b></p> <p><b>Objective:</b> Apprise of the planning interventions for disaster prone areas</p> <p><b>Contents:</b></p> <ul style="list-style-type: none"> <li>• Planning requisites for disaster prone areas and preventive measures</li> <li>• Vulnerability analysis</li> <li>• Land use planning and regulations</li> <li>• Temporary settlements and communications</li> <li>• Development planning tasks at the pre-disaster and post- disaster stages</li> </ul> <p><b>References:</b></p> <ul style="list-style-type: none"> <li>• IS Codes for Selection of Suitable Sites, IS: 14324.</li> <li>• IS Codes related to Land Slides protection, slope stability, earthquake resistant design.</li> <li>• Booklets and provisions provided by National Disaster Mitigation Authority for different disasters.</li> </ul>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ART626</b>	<b>Course Name: Urban Dynamics</b>
<b>Credit: 3</b>	<b>L-T-P: 2-1-0</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course:</b>	
<b>Syllabus</b>	
<b>Objective:</b> To impart knowledge about dynamic functions of the urban system for policy planning	
<b>Contents:</b> Definitions of Urban, urbanization, drivers of urban growth, problems and prospects of urbanization, urbanization in India, systems thinking, system, system dynamics, urban system, urban dynamics, functions of urban system, introduction to system dynamics modeling, modeling urban problems – based on current issues and field studies.	
<b>References:</b>	
<ul style="list-style-type: none"> <li>• Bertalanffy, L.V., <i>General Systems Theory</i>, Pub. by George Brazilier, New York, 1968.</li> <li>• Chadwick, G. F., <i>A system View of Planning</i>, Pub. by Pergamon Press, New York, 1971.</li> <li>• Checkland, P., <i>System Thinking System Practice</i>, Pub. by John Wiley and Sons, 1981.</li> <li>• Ford, A., <i>Modelling the Environment: An introduction to system Dynamic Modelling of Environmental System</i>, Pub. by Island Press, Washington D.C., 1999.</li> <li>• Forrester, J.W., <i>Principles of System</i>, Pub. by Productivity Press, Massachusetts, 1968.</li> <li>• Forrester, J.W., <i>Urban Dynamics</i>, Pub. by MIT Press MA, USA, 1969.</li> <li>• Lee, C., <i>Models in Planning</i>, Pub. by Pergamon Press, New York, 1973.</li> <li>• Mohapatra, P.K.J.; Mandal, P.; Bora,M.C., <i>Introduction to system Dynamics Modelling</i>, Pub. by University Press (India), Hyderabad, 1994.</li> <li>• Richardson, G.P.; Pugh, A.L., <i>Introduction to System Dynamics Modelling</i>, Pub. by Pegasus Communications Inc., Waltham, 1989.</li> <li>• Sterman, J.D., <i>Business Dynamics: System Thinking and Modelling for a Complex World</i>, Pub. by McGraw- Hill, USA, 2000.</li> </ul>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ARD701</b>	<b>Course Name: Dissertation</b>
<b>Credits:10</b>	<b>L-T-P: 0-4-0</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course:</b>	
<b>Syllabus</b>	
<p><b>Objective:</b> The objective of a dissertation is to provide an opportunity to each student to undertake in depth and original study and research in the field of his/her interest .The thesis also provides an opportunity to synthesize the knowledge and skills, acquired through the learning of various theories and practices during the previous semesters.</p>	
<p><b>Contents:</b></p> <ul style="list-style-type: none"> <li>• Each student is required to prepare a dissertation on a subject concerning Urban Development and Planning as approved by the Department of Architecture</li> <li>• The subject of dissertation may be conceptual, historical, analytical, and comparative or in any other area related to urban development and planning which shall be approved by the department.</li> <li>• Each candidate will prepare the dissertation in consultation with a guide as approved by the department.</li> <li>• Each student is required to defend the thesis at viva-voce examination.</li> </ul>	
<p><b>References:</b></p> <ul style="list-style-type: none"> <li>• Past studies, research papers, examples from published sources.</li> <li>• Books and published data from secondary sources</li> </ul>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ARS703</b>	<b>Course Name: Seminar</b>
<b>Credits: 4</b>	<b>L-T-P: 0-4-0</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course:</b> Six weeks practical training	
<p><b>Syllabus</b></p> <p><b>Objective:</b> To appraise with the techniques in profession and in research through experience and illustrations.</p> <p><b>Contents:</b></p> <ul style="list-style-type: none"> <li>• Students to present their professional training completed in the previous semester under the supervision of professional planning or research or likewise organization. The focus shall be on contributions and the lessons received in the course of professional training.</li> <li>• Research study and documentation on any one topic related to urban planning, the desirable output to be in form of a term paper.</li> </ul> <p><b>References:</b> Past studies, Research papers from journals , conferences and similar published sources.</p>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ARP705</b>	<b>Course Name: Studio Presentation: Planning for Region/Metropolitan Area</b>
<b>Credits: 4</b>	<b>L-T-P: 0-0-8</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course: ARP602: Preparing Master Plan for Special Areas</b>	
<p><b>Syllabus</b></p> <p><b>Objective:</b></p> <p><b>Contents:</b></p> <p><i>I. Minor Problem</i></p> <ul style="list-style-type: none"> <li>- Planning evaluation and appraisal of Metropolitan cities</li> <li>- Identify and explain the objectives of the problem</li> <li>• Surveys conducted for the preparation of plan</li> <li>• Growth -physical, socioeconomic, growth potentials and constraints</li> <li>• Evaluation of policy related to any one land use</li> <li>• Planning proposals</li> <li>• Implementation procedures and development control regarding land use selected by you</li> <li>• Appraisal of plan in typed report, hard bound A-4 size</li> </ul> <p><i>II. Major problem</i></p> <ul style="list-style-type: none"> <li>- Preparation of Zonal development plans for metropolitan cities.</li> <li>• Surveys</li> <li>• Data collection</li> <li>• Maps preparation</li> <li>• Planning proposals &amp; analysis, calculation, recommendations</li> </ul> <p><b>References:</b> Master Plans, Regional Plans and similar studies or documents to be referred as case studies.</p>	

<b>UG/PG: PG</b>	<b>Department: Architecture &amp; Planning</b>
<b>Course Code: ARD702</b>	<b>Course Name: Dissertation</b>
<b>Credits: 16</b>	<b>L-T-P: 0-0-4</b>
<b>Version:</b>	<b>Approved on:</b>
<b>Pre-requisite course: ARD701 Dissertation</b>	
<p><b>Syllabus</b></p> <p><b>Objective:</b> To provide a comprehensive document / model related to process of urban planning or part thereof</p> <p><b>Contents:</b></p> <p>Students are expected to extend the work submitted in the previous semester to present a study complete in respect of its objectives and recommendations.</p> <p>Students are required to complete with the requirements and align with the instructions in the Thesis Manual approved by the Department Faculty Board and DPGC.</p> <p><b>References:</b> Past studies, Published Research papers from journals, conferences, etc.</p>	