



**Department of Planning,  
Lecture Plan, Odd Semester, AY 2024-25**

**Name of Course: M.Planning (Integrated)**

Subject Name:	MPIS 115- Infrastructure Planning
Year & Sem:	M.Plan (I Year, I Semester)
Course Duration:	July to December
Course Coordinator:	J M Bhagwat
Number of Credits:	03
Subject Category:	Theory
Total Periods/Week:	3 hrs per week
Internal Assessment	50
End Evaluation	50
Total Marks	100
Total No. of Internal Assessment & Mode	03 Assessment, (Assignment No 1) 20 Marks + (Mid Semester Assessment) 20 Marks + (Assignment No 2) 10 Marks

**Subject Objective:** To develop skill sets pertaining to provision of physical and social infrastructure services in urban and regional planning.

Week	Lecture / Session Topic (Teaching-Learning Objective aimed)	Unit and Assignment
Week 1	Unit 1: Introduction to Infrastructure Planning Importance of infrastructure, objectives of the utilities, services planning and implications on public health and environment;	Assignment No 1 – 20 marks
Week 2	Unit 1: Introduction to Infrastructure Planning Role of physical planner in planning of utilities and services;	
Week 3	Unit 1: Introduction to Infrastructure Planning Role of line agencies in municipal areas; jurisdiction and scope of work of line agencies; Resilient Infrastructure, Smart cities and its infrastructure.	
Week 4	Unit 2: Physical Infrastructure Water and Waste Water Scheme, Layouts of distribution system; IUWM, Water and Waste water treatment methods,	
27 August to 08 Sept (except first years)	Field Trip	
Week 5	Unit 2: Physical Infrastructure Low-cost sanitation methods and storm water drains; Zero discharge systems; Integrated Solid Waste Management;	

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	MSWM 2000.	
Week 6	Unit 2: Physical Infrastructure Environmental Policy 2006; Urban Energy Systems and Civic services. Service Level Benchmarks.	
17-21 Sept	Mid- Semester Assessment week	
Week 8	Unit 3: Social and Economic Infrastructure Types of social infrastructure; Health care essential service, availability, access and utilisation, standards, public and private institutions, policies,	Guest Lecture
Week 9	Unit 3: Social and Economic Infrastructure National Rural Healthcare Mission, hierarchy of health care establishments; Education primary and secondary educational institutions, standards, policies, right to education (RTE);	Assignment No 2 – 10 marks
Week 10	Unit 3: Social and Economic Infrastructure Public and community spaces recreational, safety and security; Distributional services, Economic Infrastructure.	
Week 11	Unit 4: Transportation and Land use Integration Introduction to transport and travel; Understanding travel from the mobility, economic, social- psychologist, time/space perspective: Factors affecting land use-transport integration, and tools for land use and transport integration,	
Week 12	Unit 4: Transportation and Land use Integration land use transport cycle, importance of accessibility, Transportation planning process: Introduction to four stage modelling: Demand and supply of transport, Congestion pricing;	
Week 13	Unit 4: Transportation and Land use Integration Transport Pricing, Basic transport economic model; SLBS; Introduction to carbon footprint.	
Week 13	Unit 5: Formulation of DPR for Infrastructure Services DPR and its importance; contents of DPR: broad sequences to DPR formulation; capabilities required to prepare a DPR; DPR evaluation, Project Cost, Institution Framework,	
Week 14	Unit 5: Formulation of DPR for Infrastructure Services Project Financial Structuring, Project Phasing, Project O&M planning. Project Financial Viability & Sustainability.	
Week 15	Revision	

Reference books:



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1. Swamee, P. K., & Sharma, A. K. (2008). Design of Water Supply Pipe Networks. New Delhi: Wiley India.
2. Kalbermatten, J. M., Julius, D. S., Gunnerson, C. G., & Mara, D. D. (1982). Appropriate Sanitation Alternatives: A Planning and Design Manual. Washington, DC: World Bank.
3. Jain, S. K., & Singh, V. P. (2003). Water Resources Systems Planning and Management. Amsterdam: Elsevier.
4. Reddy, M. A. (2005). Urban Transport in India: Issues, Challenges, and the Way Forward. New Delhi: New India Publishing Agency.
5. Anand, S., & Tiwari, G. (2006). A Handbook on Sustainable Urban Transport Planning. New Delhi: TERI Press.

**Note:**

1. Any other closed holidays as declared by SPAV shall supersede the above lecture plan. Holidays shown above may alter as per Notice from time to time.
2. Assessment Sessions may be re-scheduled, with prior intimation.
3. Reading lists provided is not exhaustive and is subject to addition – students are advised to follow progression of class to keep abreast of the new reading lists, if any.

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