

Lecture Plan
Department of Planning, School of Planning and Architecture, Vijayawada

Name of Course: Utilities and Network Planning(10210405)

Programme & Sem: **Bachelor of Planning (UG), Semester Four (Equivalence)**
 Course Duration: December 28, 2016 to April 28, 2017
 Course Coordinator: Jyolsna S Pai, Ms., Assistant Prof., Dept. of Planning (jyolsna@spav.ac.in)
 Number of Credits: 02
 Subject Category: Non Core Lab
 Total Periods/Week: 04
 Internal Assessment: 50 (minimum pass marks 50%)
 End Evaluation: 50 (minimum pass marks 50%) – Written Exam.
 Total Marks: 100 (to be converted to CGPA credit pattern as per regulations)

Subject Objective: Developing skills to design utility networks and alignment plans in the context of a new or existing area taking into consideration the local needs and limitations.

Week	Lecture / Session Topic (Teaching-Learning Objective aimed)	Session Mode	References / Suggested Readings
Week 1 (starting Dec 28)	Components and types of social infrastructure; education facilities, categories and standards; healthcare facilities, categories and standards;	Interactive Session and Lecture	1. Government of India (2015), Urban and Regional Development Plans Formulation and Implementation (URDPFI) Guidelines. Vol. 1, Town and Country Planning Organisation, Ministry of Urban Development, New Delhi.
Week 2 (starting Jan 2)	socio-cultural facilities and other infrastructure services include milk distribution centers, police station and posts, control room, fire stations and disaster management center and etc.; provision of open spaces, parks, playgrounds, cremation grounds and multipurpose grounds category wise.	Lecture	2. S. Gopi Prasad, B. Shankar, "Land Use Planning for Social Infrastructure in Bangalore Metropolitan Area: Issues and Policies", International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-2, Issue-5, November 2013 3. The New Capital City of Andhra Pradesh-Capital City Master Plan Draft Report, Andhra Pradesh Capital Region Development Authority (APCRDA) 2015

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Week 3 (starting Jan 9)	Power, sources of generation, transmission and distribution, national grid, high tension lines and buffer; gas storage and supply, telecommunication lines;	Lecture	4. Nagpur Model Solar City Final Master Plan, January 2013, Ministry of New and Renewable Energy, Government of India, New Delhi 5. 'Handbook of Service Level Benchmarks', National Capital Region Planning Board (NCPRB)
Week 4 (starting Jan 16)	Locating all infrastructure lines within the road in efficient road cross sections	Lecture	6. R K Goel, Bhawani Singh, Jian Zhao (2012), Underground Infrastructures: Planning, Design, and Construction, BH Publications 7. Ministry of Urban Development. 'Service Level Benchmarks Data Book - Improving Service Outcomes 2008-09'. Govt. 2010. (GUIDELINES)
Week 5 (starting Jan 23)	Planning the local circulation pattern in relation to adjoining land use and on street activities; integration of underground infrastructure planning with local circulation planning and design;	Lecture	
Week 6 (starting Jan 30)	Assessment - 1 (Feb 1- 3) Closed Book Exam		
Week 7 (starting Feb 6)	Appraisal and critical evaluation of an existing road network, water supply situation, drainage and sewerage system, and solid waste management situation in an urban context	Interactive Session and Lecture	-
Week 8 & 9 (starting Feb 13)	Field work I (Feb 13-24)		
Week 10 (starting Feb 27)	Understanding the nature of the problem in utilities and services; understanding relations between land use change demographic change and development pattern with utility services demand, project estimates	Lecture	8. World Bank (2006), 'India Inclusive Growth and Service Delivery: Building on India's Success Development Policy Review' Report No. 34580-IN
Week 11 (starting March 6)	Smart cities and its infrastructure;	Lecture	

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Week	Lecture / Session Topic (Teaching-Learning Objective aimed)	Session Mode	References / Suggested Readings
Week 12 (starting March 13)	Assessment – 2 (March 13-17): Time-bound Closed Book Test		
Week 13 (starting March 20)	Calculation of generation of Dry Weather Flow (DWF) and Storm Weather Flow (SWF) from an area based on population projections and soil type; designing layout and alignment of new drainage lines; natural drainage channels based on natural gravity; catchment of drainage channels; utility of open and covered drains; developing augmenting plans of an existing drainage line.	Lecture	9. Rangawala, 'Water Supply and Sanitary Engineering'. Charotar Publishing House. 2008. (BOOK)
Week 14 (starting March 27)	Decentralised Wastewater Treatment Systems (DEWATS); Low cost treatment systems;	Lecture	10. Water Management Team. (2010). Decentralised Wastewater Treatment: A way to manage septage in Shimla. Center for Science and Environment. New Delhi.
Week 15 (starting April 3)	Role of line agencies in municipal areas; jurisdiction and scope of work of line agencies; cost recovery methods of infrastructure planning and development projects;	Lecture	11. Mahesh C Purohit (2016), 'Financing Urban Infrastructure in India: An Overview of Policy Lessons', First High-Level Follow-up Dialogue on Financing for Development in Asia and the Pacific Incheon, Republic of Korea (Discussion Paper)
Week 16 (starting April 10)	Assessment – 3 (April 10 -14)		
Week 17 (starting April 17)	growth pay itself, development charge, Service Level Benchmarks (SLBs) and reforms	Lecture	12. Report on Development Charges (2009), Town and Country Planning Organisation, Ministry of Urban Development, Government of India

Note:

1. Any other closed holidays as declared by SPAV shall supercede 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.