

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

Name of Course: Planning for Physical Infrastructure (BPLN304)

Programme & Sem: **Bachelor of Planning (UG), Semester Third**
 Course Duration: July 16 to Nov 14, 2018
 Course Coordinator: Prasanth Vardhan P, Mr., Assistant Prof., Dept. of Planning (prasanth@spav.ac.in)
 Number of Credits: 03
 Subject Category: Theory
 Total Periods/Week: 03 (minimum Attendance Requirement 75%)
 Internal Assessment(IA): 50 (minimum pass marks 40%)
 End Evaluation(EE): 50 (minimum pass marks 40%) – Written Exam and Aggregate marks 50% [IA+EE].
 Total Marks: 100 (to be converted to CGPA credit pattern as per regulations)

Subject Objective: To impart basic knowledge on Infrastructure, its relation to planners in settlement planning and design considerations of Infrastructure development.

Week	Lecture / Session Topic (Teaching-Learning Objective aimed)	Session Mode	References / Suggested Readings
Week 1 (starting July 16)	Definition of Infrastructure and its components, Role of physical planner in planning of utilities and services;	Lecture	1. Planning Commission, 'Definition of Infrastructure', Secretariat for Infrastructure, Government of India. New Delhi.2011. (REPORT) 2. Central Public Health and Environmental Engineering Organisation. 'Manual on Water Supply and Treatment', Gol.2015 (MANUAL) 3. Venkateswara Rao. P, Srinivasa Rao. K, 'Hand Book on Water Supply Engineering', State Institute of Vocational Education, Government of Andhra Pradesh, Hyderabad.2005.(TEXT BOOK) 4. Rangawala, 'Water Supply and Sanitary Engineering(Env. Eng.)', 25th Edition. Charotar Publishing House PVT.LTD,Ahmedabad. 2011. (TEXT BOOK)
Week 2 (starting July 23)	Objectives of utilities and services planning, its relation to economic growth, public health and environmental protection;	Lecture	
Week 3 (starting July 30)	Hydrological Cycl; Introduction to the institutions related to Infrastructure services Water Supply System, Water supply sources, treatment system and types	Lecture	
Week 4 (starting Aug 06)	Water distribution system, pressure requirement; requirement for domestic and non-domestic purposes, fire fighting, seasonal variations in demand and consumption.	Lecture	
Week 5 & 6 (Aug 13 - 21)	Internal Assessment 1 (Written Test) – 30% of Internal Assessment		
Week 7 (starting Aug 27)	Pipe network analysis; requirements of distribution and storage, Storm Water run-off estimation, DWF and SWF, rainfall intensity, time of concentration	Lecture	5. Davies, David. B and John .W 'Urban Drainage', 3rd Edition.Spon Press, Taylor & Francis. London. 2011. (TEXT BOOK)
Week 8 (Sep 01-09)	Field Work for all semesters of UG and PG		
Week 9 (starting Sep10)	Gravity flow, Hydraulic gradient line, Manning's formula and nomographs, layout and design of storm water systems, non-sourcing velocity, data requirements and rain water harvesting	Lecture	Reference 4 & 5
Week 10 (Sep 24-28)	Internal Assessment – II (Mid Semester Examination) – 40% of Internal Assessment		

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Week 11 (starting Oct 01)	Sanitation, on-site detention, design procedure for on-site detention; Low cost appropriate technologies for sanitation, Sanitary sewer system, Sewer system location and layout	Lecture	6. Central Public Health and Environmental Engineering Organisation, 'Manual on Sewerage and Sewage Treatment', Ministry of Urban Development, New Delhi.2013 (MANUAL) 7. Ministry of Urban Development, 'URDPFI Guidelines', Volume 1. Government of India, New Delhi.2014 (GUIDELINES)
Week 12 (starting Oct 08)	Quantity of sewage, standards for indian cities, sewer appurtenances sewer pumping and forced main manholes	Lecture	
(Oct 15-19)	Dussehra Break		
Week 14 (Oct 22 - 26)	Internal Assessment – III (Presentation/Submission) – 30% of Internal Assessment		
Week 15 (starting Nov 05)	Solid Waste and types, MSWM rules 2000 and 2013 Stages of SWM and current practices; Composting process – Indore and Bangalore methods	Lecture	8. Ministry of Urban Development, 'Toolkit for Solid Waste Management', Government of India, New Delhi.2011.
Week 16 (starting Nov 12)	Concepts of re-use and recycle, e-waste and bio-medical waste generation and treatment methods	Lecture	9. Ministry of Environment and Forest, 'Municipal Solid Waste Management Rules', Government of India, New Delhi.2000

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.