

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

Name of Course: Traffic and Transportation Planning (BPLN305)

Programme & Sem: **Bachelor of Planning (UG), Semester Three**

Course Duration: July 16th to Nov 14th, 2017

Course Coordinator: Ms Shakthe S, Assistant Prof., Dept. of Planning (shakthe@spav.ac.in)

Number of Credits: 03

Total Periods/Week: 03 (see timetable for details)

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: *To understand the basic knowledge of traffic surveys, infrastructure design and concepts of planning.*

Week	Lecture / Session Topic (Teaching-Learning Objective aimed)	Session Mode (Optional)	References / Suggested Readings
Week 1 (Starting July 16)	Concept, Role and Significance of Transport Planning: Various systems of transport its characteristics and role in development of a nation; Economic, political and social significance and transport development.	Lecture and Group Discussion	1. Rodrigue, J. P., Comtois, C. and Slack, B, 'The Geography of Transport Systems'. Routledge Publishing. 2006. (BOOK) 2. Nicholas J. Garber and Lester A. Hoel, 'Traffic & Highway Engineering'. Cengage Learning. Fifth Edition. (BOOK)
Week 2 (Starting July 23)	Transport policies and programmes before and after independence; Current trends in road development.	Lecture	
Week 3 (Starting July 30)	Traffic and transport problems and issues; Emerging concepts - TOD, NMT, MRTS and public parking.	Lecture	
Week 4 (Starting Aug 06)	Traffic Surveys and Data Collection: Vehicle types, capacity, Traffic assessment - traffic density, traffic flow and speed.	Lecture	3. Pradip Kumar Sarkar, Vinay Maitri & G.J. Joshi, 'Transportation Planning – Principles, Practices and Policies'. PHI Learning Pvt. Ltd., 2017. (BOOK)
Week 5 (Starting Aug 13)	Traffic, travel and network characteristics and their significance in planning and design of transport infrastructure.	Lecture	4. Dr. L.R. Kadiyali, 'Traffic Engineering and Transport Planning'. Khanna Publishers. Eight Edition. (BOOK)
Week 6 (Starting Aug 20)	Internal Assessment – I (Aug 16 – Aug 21) : Time-Bound Closed Book Test		
Week 7 (Starting Aug 27)	Design of survey formats and questioners - Classified volume count, Origin & destination, spot	Lecture	5. Pradip Kumar Sarkar, Vinay Maitri & G.J. Joshi, 'Transportation

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	speed studies, parking, pedestrian volume studies, collection of travel data from household surveys.		Planning – Principles, Practices and Policies'. PHI Learning Pvt. Ltd., 2017. (BOOK) 6. Dr. L.R. Kadiyali, 'Traffic Engineering and Transport Planning'. Khanna Publishers. Eight Edition. (BOOK)
Week 8 (Starting Sep 03)	Field Work (Sep 01 – Sep 09)		
Week 9 (Starting Sep 10)	Road Transport Infrastructure: Road hierarchies, classification, capacity and level of service.	Lecture	7. Ministry of Urban Development. 'Code of Practice (Part -1): Cross Section'. Institute of Urban Transport.2012. (CODES).
Week 10 (Starting Sep 17)	Intersection types; Uncontrolled, controlled; Space sharing and time sharing junctions.	Lecture	8. IRC: SP-41. 'Guidelines on Design of At-Grade Intersections in Rural & Urban Areas'. Indian Road Congress. 1994 (CODES) 9. Ministry of Urban Development. 'Code of Practice (Part -2): Intersections'. Institute of Urban Transport. 2012. (CODES).
Week 11 (Starting Sep 24)	Internal Assessment – II (Sep 24 – Sep 28) : Time-Bound Closed Book Test		
Week 12 (Starting Oct 01)	Space standards for road design, Cycling and pedestrian systems.	Lecture	10. IRC: 69. 'Space Standards for Roads in Urban Areas'. Indian Road Congress. 1977. (CODES) 11. IRC: 11. 'Recommended Practice for the Design and Layout of Cycle Tracks. Indian Road Congress. 1962. (CODES)
Week 13 (Starting Oct 08)	Geometric Design of Road and Intersections: Vehicle and road characteristics; Components of geometric design-design speed; Horizontal and vertical alignment.	Lecture	12. John George Schoon, 'Geometric Design Projects for Highways: An Introduction'. ASCE Press. 2000. (BOOK) 13. Ministry of Urban Development. 'Code of Practice (Part -1): Cross Section'. Institute of

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			Urban Transport.2012. (CODES).
Week 14 (Starting Oct 15)	Dussehra Break		
Week 15 (Starting Oct 22)	Internal Assessment – III (Oct 22 – Oct 26) : Time-Bound Closed Book Test		
Week 16 (Starting Oct 29)	Network alignment planning, sight distance, cross-section elements, Lateral and vertical clearance, control of axis	Lecture	14. Dutta, R. N. 'Reader's Volume on Transportation Planning for AITP Students'. AITP, 1995. (BOOK). 15. IRC:54. 'Lateral and Vertical Clearances at Underpasses for Vehicular Traffic. Indian Road Congress. 1974. (CODES).
Week 17 (Starting Nov 05)	Traffic Management: Objectives, principles and approaches for traffic management.	Lecture	16. Jain, A. K. 'Urban Transport: Planning and Management'. APH Publishing. 2009. (BOOK)
Week 18 (Starting Nov 12)	Regulatory measures, physical measures, signal control at intersections and networks, driver information systems.	Lecture	
November 15	Finalisation of Internal Assessment Marks and Attendance		

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.