Lecture Plan

Department of Planning, School of Planning and Architecture, Vijayawada

Name of Subject:	**Traffic and Transportation Planning (BPLN305)**
Programme & Sem:	Bachelor of Planning (UG), Semester III
Subject Coordinator:	Ms. Naina Gupta, Assistant Prof., Dept. of Planning
Number of Credits:	3
Total Periods/Week:	3 (minimum Attendance Requirement 75%)
Internal Assessment (IA):	50 (minimum pass marks 40%)
End Evaluation (EE):	50 (minimum pass marks 40%)
Total Marks (IA+EE):	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.

S.No	Date	Lecture / Session Topic (Teaching-Learning Objective aimed)
1	Week 1	**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.
2	Week 2	**Road Transport Infrastructure:** Road hierarchies, classification, capacity and level of service.
3	Week 3	Intersection types; Uncontrolled, controlled; Space sharing and time sharing junctions.
4	Week 4	**Traffic Surveys and Data Collection:** Vehicle types, capacity, Traffic assessment - traffic density, traffic flow and speed.
5	Week 5	Internal Assessment – : Time-Bound Closed Book Test
6	Week 6	**Field Work for all semesters of UG and PG**
7	Week 7	
8	Week 8	Traffic, travel and network characteristics and their significance in planning and design of transport infrastructure.
9	Week 9	Classified volume count, Origin & destination, spot speed studies, parking, pedestrian volume studies
10	Week 10	**Mid-Semester Examinations**
11	Week 11	Transport policies and programmes before and after independence; Current trends in road development.
12	Week 12	Traffic and transport problems and issues; Emerging concepts - TOD, NMT, MRTS and public parking.
13	Week 13	Space standards for road design, Cycling and pedestrian systems.
14	Week 14	**Geometric Design of Road and Intersections:** Vehicle and road characteristics; Components of geometric design-design speed; Horizontal and vertical alignment.

15	Week 15	Internal Assessment – III : Time-Bound Closed Book Test
16	Week 16	Network alignment planning, sight distance, cross-section elements, Lateral and vertical clearance, control of axis
17	Week 17	**Traffic Management:** Objectives, principles and approaches fortraffic management.
18	Week 18	Regulatory measures, physical measures, signal control at intersections and networks, driver information systems.

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 tofollow progression of class to keep abreast of the new reading lists, if any.

Suggested Readings:

1. Rodrigue, J. P., Comtois, C. & Slack, B, 'The Geography of Transport Systems'. RoutledgePublishing. 2006.
2. Garber,N. & Lester A. Hoel, 'Traffic & Highway Engineering'. Cengage Learning. FifthEdition.
3. P.K.Sarkar, V.Maitri & G.J.Joshi, 'Transportation Planning – Principles, Practices and Policies'. PHI Learning Pvt. Ltd., 2017.
4. Dr. L.R. Kadiyali, 'Traffic Engineering and Transport Planning'. Khanna Publishers. EightEdition.
5. Ministry of Urban Development. 'Code of Practice (Part -1&2): Cross Section'. Institute ofUrban Transport. 2012.
6. IRC: SP-41. 'Guidelines on Design of At-Grade Intersections in Rural & Urban Areas'. IndianRoad Congress. 1994
7. IRC: 69.'Space Standards for Roads in Urban Areas'. Indian Road Congress. 1977.
8. IRC: 11. 'Recommended Practice for the Design and Layout of Cycle Tracks', Indian RoadCongress. 1962.
9. IRC:54. 'Lateral and Vertical Clearances at Underpasses for Vehicular Traffic'. Indian RoadCongress. 1974.
10. Jain, A. K. 'Urban Transport: Planning and Management'. APH Publishing. 2009.