

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 10 to Nov 03, 2017

Course Coordinator: Shweta Sharma, Assistant Prof., Dept. of Planning
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Number of Credits: 03

Total Periods/Week: 03 (See Time Table 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 give a basic understanding of what transportation planning is, its theoretical background and applications. Also, to develop skill for collecting data about travel behavior and analyzing the data for use in transport planning.*

Week	Lecture / Session Topic (Teaching-Learning Objective aimed)	Session Mode (Optional)	References / Suggested Readings
Week 1 (July 10-14)	Unit 1: Concept, role and significance of transport planning Various systems of transport; its characteristics and role in development; economic, political and social significance, Transport policies and programmes before and after independence; current trends in road development	Lecture	1. Richards, B. 'Future Transportation in Cities'. Taylor and Francis. 2001. (BOOK) 2. Rodrigue, J. P., Comtois, C. and Slack, B. The Geography of Transport Systems. Routledge Publishing. 2006. (BOOK)
Week 2 (July 17-21)	Traffic and transport problems at national, regional and urban level; Emerging concepts - TOD, NMT, MRTS and public parking	Lecture	
Week 3 (July 24-28)	Unit 2: Traffic surveys and data collection Vehicle types, capacity, design of survey formats and questioners; classified volume count, origin destination, spot speed studies, parking, pedestrian volume studies, collection of travel data from household surveys.	Lecture	1. Dutta, R. N. 'Reader's Volume on Transportation Planning for AITP Students'. AITP, 1995. (BOOK). 2. IRC:69. 'Space Standards for Roads in Urban Areas'. Indian Road Congress. 1977. (CODES)
Week 4 (July 31-Aug 4)	Traffic assessment; traffic density, traffic flow and speed	Lecture	3. IRC:SP:43. 'Guidelines on Low-Cost Traffic Management Technique for Urban Areas'. Indian Road Congress. 1996 (SPECIAL
Week 5 (Aug 7 -11)	Travel and network characteristics and their significance in planning and design of transport infrastructure.	Lecture	

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			<p>PUBLICATION).</p> <p>4. Kansal, P. 'Reading Material on Advanced Transportation Planning'. ITPI. 1998. (BOOK).</p> <p>5. Ministry of Urban Development. 'Code of Practice (Part -5): Traffic Calming'. Institute of Urban Transport. 2012. (CODES)</p>
Week 6 (Aug 14 - 18)	Assessment – 1 (Aug 14-18): Time-bound Test		
Week 7 (Aug 21 - 25)	Unit 3: Road transport infrastructure Road hierarchies, classification, capacity and level of service; space standards for road design	Lecture	<p>1. IRC:11. 'Recommended Practice for the Design and Layout of Cycle Tracks. Indian Road Congress. 1962. (CODES)</p>
Week 8 (Aug 28- Sept 1)	Intersection types; uncontrolled, controlled; space sharing and time sharing junctions; Cycling and pedestrian systems	Lecture	<p>2. IRC:SP:41. 'Guidelines on Design of At-Grade Intersections in Rural & Urban Areas'. Indian Road Congress. 1994 (SPECIAL PUBLICATION).</p> <p>3. Ministry of Urban Development. 'Code of Practice (Part -1): Cross Section'. Institute of Urban Transport.2012. (CODES).</p> <p>4. Ministry of Urban Development. 'Code of Practice (Part -2): Intersections'. Institute of Urban Transport. 2012. (CODES).</p>
Week 9 (Sept 4)	Field Work (Sept 02-Sept 10)		
Week 10 (Sept 11 - 15)	Unit 4: Geometric design of road and intersections Vehicle characteristics and road characteristics; components of geometric design; Horizontal and vertical alignment, network alignment planning		<p>1. Dutta, R. N. 'Reader's Volume on Transportation Planning for AITP Students'. AITP, 1995. (BOOK).</p> <p>2. Jain, A. K. 'Urban Transport: Planning and Management'. APH Publishing. 2009. (BOOK)</p>
Week 11	Assessment – 2 (Sept 18-22):		

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(Sept 18 - 22)	Time-bound Test		
Week 12 (Sept 25 - 29)	Sight distance, cross-section; lateral and vertical clearance, control of axis	Lecture	1. IRC:54. 'Lateral and Vertical Clearances at Underpasses for Vehicular Traffic. Indian Road Congress. 1974. (CODES). 2. Ministry of Urban Development. 'Code of Practice (Part -1): Cross Section'. Institute of Urban Transport.2012. (CODES).
Week 13 (Oct 2 - 6)	Unit 5: Traffic management Objectives; principles and approaches for traffic management	Lecture	1. Jain, A. K. 'Urban Transport: Planning and Management'. APH Publishing. 2009. (BOOK)
Week 14 (Oct 9 - 13)	Regulatory measures, physical measures	Lecture	1. Button, K. 'Transport Economics", Edward Elgar Publishing. 2010. (BOOK) 2. Cole, S. 'Applied Transportation Economics: Policy, Management and Decision Making'. Kogan Page. 2010 (BOOK)
Week 15 (Oct 16 - 20)	Signal control at intersections and networks, driver information systems	Lecture	1. Button, K. 'Transport Economics", Edward Elgar Publishing. 2010. (BOOK). 2. Cole, S. 'Applied Transportation Economics: Policy, Management and Decision Making'. Kogan Page. 2010 (BOOK)
Week 16 (Oct 23 - 27)	Assessment – 3 (Oct 23-27): Time bound Test		
Week 17 (Oct 30 – Nov 3)	Revision and doubt clearing session	Discussion	
Nov 03	Finalisation of Internal Marks		

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.