

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

Name of Course: Traffic and Transport Planning -- II (10210406)

Programme & Sem: **Bachelor of Planning (UG), Semester Four(Equivalence)**
 Course Duration: December 28, 2016 to April 28, 2017
 Course Coordinator: Ms. Shweta Sharma, Assistant Prof., Dept. of Planning (shweta@spav.ac.in)
 Number of Credits: 04
 Subject Category: Core Theory
 Total Periods/Week: 4(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 inculcate knowledge of Urban Transport planning process, modelling, safety and appraisal of the projects.

Week	Lecture / Session Topic (Teaching-Learning Objective aimed)	Session Mode (Optional)	References / Suggested Readings
Week 1 (starting Dec28)	<u>Unit I – Introduction to urban transport planning process</u> Study area definitions, sampling of travel methods, survey techniques; programming and scheduling, processing of travel data, analysis and interpretation of traffic studies	Lecture	1) Ortuzar, Juan de D. 'Modelling Transport', John Wiley and Sons. 2001. (BOOK) 2) Kadiyali, L. R. 'Traffic Engineering and Transport Planning', Khanna Publishers. 2007. (BOOK)
Week 2 (starting Jan02)	Introduction to transport planning process, trip generation, trip distribution, trip assignment, modal split.	Lecture	3) Kansal, P. 'Reading Material on Advanced Transportation Planning', ITPI. 1998. (BOOK)
Week 3 (starting Jan09)	Introduction to TRIPS, CUBE, TRANSYT, ARCADY, etc.; freight transport characteristics, logistics and supply chain management	Lecture	1) Ortuzar, Juan de D. 'Modelling Transport', John Wiley and Sons. 2001. (BOOK) 2) Rodrigue, J. P. 'The Geography of Transport Systems', Routledge. 2006. (BOOK)
Week 4 (starting Jan16)	<u>Unit II – Public transport</u> The roles and characteristics of public transport modes, understanding and estimating public transport demand, designing and operating public transport systems	Lecture	1) Date, V. and Sundararaman, B. 'Road Infrastructure: Issues and Implications', ICFAI University Press. 2004. (Chap 4) (BOOK) 2) Dutta, R. N. 'Readers Volume on Transportation Planning for AITP Students',

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			Institute of Town Planners.2001. (BOOK)
Week 5 (starting Jan23)	Vehicle utilisation, vehicle routing, passenger information systems, application of intelligent transport systems	Lecture	1) Richards, B. 'Future Transport in Cities', Taylor and Francis. 2001. (BOOK) 2) Wortman, M. 'Public Transportation on the Move'(ed.), Visual Reference Publication Inc. 2005. (BOOK) 3) Dutta, R. N. 'Readers Volume on Transportation Planning for AITP Students', Institute of Town Planners.2001. (BOOK)
Week 6 (starting Jan30 – Feb 03)	Assessment – 1 (Feb 1-3): Time bound Test		
Week 7 (starting Feb 06)	Public transport costs, fares and investment appraisal	Lecture	1) Jain, A. K. 'Urban Transport Planning and Management', A. P. H. Publishing Corporation. 2009. (BOOK) 2) Date, V. and Sundararaman, B. 'Road Infrastructure: Issues and Implications', ICFAI University Press. 2004. (Chap 12) (BOOK)
Week 8& 9 (starting Feb 11)	Field Work I (Feb 13-24)		
Week 10 (starting Feb 27)	Unit III – Transport safety human factors in road accidents; vehicle factors in accidents and injury prevention measures; infrastructure problems and solutions	Lecture	1) Jain, A. K. 'Urban Transport Planning and Management', A. P. H. Publishing Corporation. 2009. (BOOK) 2) Flaherty, C. A. O. 'Transport Planning and Traffic Engineering', Elsevier India Pvt. Ltd. 2006. (BOOK)
Week 11 (starting Mar 6)	System safety and safety audit; safety education; safety modelling; vulnerable road users; planning for target group – children, adults, handicapped and women	Lecture	3) Ministry of Urban Development. 'Code of Practice (Part-5): Traffic Calming', Institute of Urban Transport. 2012. (BOOK)

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Week 12 (starting Mar 13)	Assessment – 2 (Mar 13-17): Time-bound Test		
Week 13 (starting Mar 20)	Unit IV – Transport and Environment Introduction to urban pollution issues and policy, transport noise screening tools, vehicle emissions and trends	Lecture	1) Indian Road Congress. 'International Seminar on Sustainable Development in Road Transport', IRC Proceedings. 2001. (CODES) 2) Ramanathan, R. 'Indian Transport Towards the New Millennium', Concept Publishing Company. 2004. (BOOK)
Week 14 (starting Mar 27)	Air quality management, exploratory analysis of urban air quality data, dispersion modelling approaches	Lecture	1) Richards, B. 'Future Transport in Cities', Taylor and Francis. 2001. (BOOK) 2) Ramanathan, R. 'Indian Transport Towards the New Millennium', Concept Publishing Company. 2004. (BOOK)
Week 15 (starting Apr 3)	Norms and guidelines for highway landscape, energy and environmental implications in transport, standards and design considerations	Lecture	1) Morrison, G. M. and Rauch, S. 'Highway and Urban Environment' (ed.), Springer. 2007. (BOOK) 2) Indian Road Congress. 'International Seminar on Sustainable Development in Road Transport', IRC Proceedings. 2001. (BOOK) 3) Dutta, R. N. 'Readers Volume on Transportation Planning for AITP Students', Institute of Town Planners. 2001. (BOOK)
Week 16 (starting Apr 10)	Assessment – 3 (Apr 13-14): Time bound Test		
Week 17 (starting Apr 17)	Unit V – Financial and economic appraisal of transport projects Estimates of quantities, unit rates, cost escalation, revenues, and financial viability	Lecture	1) Indian Road Congress. 'Manual on Economic Evaluation of Highway Projects in India', The Indian Road Congress. 1993. (BOOK)
Week 18 (starting Apr 24)	Savings in fuel consumptions, travel time savings, savings in VOC, determination of EIRR and	Lecture	2) Button, K. 'Transport Economics', Edward Elgar Publishing Inc.

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	sensitivity analysis		2010. (BOOK) 3) Cole, S. 'Applied Transportation Economics: Policy, Management and Decision Making', Kogan Page India Pvt. Ltd. 2010. (BOOK)
May 2	Finalisation of Internal Marks		

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.