

<https://doi.org/10.1007/s40614-016-0063-8>

- Liz Bondi, 2005, Emotional Geographies, Ashgate Publishing Limited, Routledge, 978-0754643753
- Russell, J. (1991). Culture and the categorization of emotion. Psychological Bulletin, 426-450

## DISCIPLINE SPECIFIC ELECTIVE COURSE – GEOGRAPHY OF TRANSPORTATION (DSE 16)

Course title & Code	Credits	Duration (per week)			Eligibility Criteria	Prerequisite
		Lecture	Tutorial	Practical/ Practice		
Geography of Transportation (DSE 16)	4	3	1	0	Class 12th	NIL

**Learning Objectives:** The course is mapped to Industry, innovation and infrastructure (SDG 9) with reference to transportation modes and systems. Specifically, the objectives are:

- To understand the significance of Geography of Transportation.
- To outline the need of Travel and development of Transportation.
- To discuss the importance of Mobility, Connectivity, Accessibility and Modal Choice.
- To evaluate the role of Transport Planning and Governance in Sustainable Transportation.

### Learning Outcome:

**Students will have an in-depth knowledge of the following:**

- Dimensions of Means of Transportation.
- Factors affecting development of Transport.
- Socio-economic and Environmental Problems of Transportation.
- Initiatives for Transport Management and Policy Making.

### Course Outline:

- **Unit 1: Geography of Transportation (15 hours):** Introduction, Significance, Terrain factors in the Historical Development of Transport; Mechanized Means of Transportation – Land, Air and Water; Factors affecting development of Transport; Modal Choice.
- **Unit 2: Urban Transport (15 hours):** Urban Mobility, Characteristics and Need of Urban Transport, Modes of Urban Travel, Challenges and Solutions.
- **Unit 3: Methods and Models in Transport Study (10 hours):** Graph Theory - Connectivity Matrix and Accessibility Matrix, Gravity Model, Cost-Benefit Analysis.

- **Unit 4: Issues and Policies of Transport Planning and Policy (20 hours):** Challenges of Transport Sector including Land use and Traffic Generation, Socio-economic and Environmental Problems Transport Management and Policy Framework, Transport Planning and Governance, Role of Geospatial Technology in Planning and Monitoring of Transport, Initiatives for Sustainable Transportation, A Case Study of Delhi in understanding the issues in Transportation Geography.

### Tutorial Exercises:

Tutorial exercises will include discussion of specific readings and case study of Delhi metro and Mumbai monorail

### Readings:

#### Essential:

- Boardman, A. E., Greenberg, D. H., Vining, A. R., & Weimer, D. L. (2017). Cost-benefit analysis: concepts and practice. Cambridge University Press.
- Giuliano, G., & Hanson, S. (Eds.) (2017). The Geography of Urban Transportation (4th Edition). New York: The Guilford Press.
- Halder, D. (2006). *Urban Transport in India: Crisis and Cure*, New Delhi: Bookwell.
- Hoyle, B. S., & Knowles, R. D. (Eds.) (1992). *Modern Transport Geography*, London and New York: Belhaven Press.
- Rodrigue, J. P., Comtois, C., & Slack, B. (2006). The Geography of Transport Systems. New York: Routledge.
- Taaffe E. J., & Gathier, H. L. (1973). *Geography of Transportation*, ISBN: 0-13-351395-5, Prentice-Hall, Inc.
- Ramanathan, R. (2004). *Indian Transport Towards the New Millennium: Performance, Analysis and Policy*, New Delhi: Concept Publishing Co.

#### Suggestive:

- ADB. (2013). Cost-benefit analysis for development: A practical guide. Asian Development Bank.
- Brooks, P. W. (1994). The Development of Air Transport. In. Hurst, M. E. (Eds.) *Transportation Geography: Comments and Reading*, Mc Graw Hill, 256-273.
- Mishan, E. L., & Quah, E. (2007). *Cost-Benefit Analysis* (5th Edition). New York: Routledge.
- Murty, M. N., Dhavala, K. K., Ghosh, M., & Singh, R. (2006). Social Cost-Benefit Analysis of Delhi Metro, Munich Personal RePEc Archive, Institute of Economic Growth, Delhi.
- NCAER. (2001). Designing A Fare Structure for the Delhi Metro Rail System. National Council for Applied Economic Research.
- Sarkar, P. K., Maitri, V., & Joshi, G. J. (2017). *Transportation planning: Principles, practices and policies*. PHI Learning Pvt. Ltd.