

CE 334 (3 0 0 6) Transportation Engineering II

Prof. Tom V. Mathew

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1 Course contents

1.1 Introduction to Transportation Engineering

1. Introduction to transportation system engineering
2. Introduction to travel demand modeling
3. Transportation planning surveys

1.2 Transportation Planning

1. Trip generation
2. Trip distribution
3. Mode choice
4. Traffic Assignment

1.3 Traffic Engineering: Traffic flow modeling

1. Fundamental parameters of traffic flow
2. Fundamental relations of traffic flow
3. Traffic stream models
4. Moving observer method
5. Traffic measurement procedures
6. Capacity and level of service

1.4 Traffic Engineering: Traffic control

1. Principles of traffic control
2. Traffic signs and road markings
3. Uncontrolled intersections
4. Traffic rotary
5. Design and evaluation of traffic signal
6. Coordinated traffic signal
7. Advances in traffic signal control

2 Lectures

2.1 Lecture Timings - slot 4

Mon 11:35-12:30 (CE 208)

Tue 08.30-09.25 (CE 208)

Thu 09.30-10.25 (CE 208)

Visiting Time - Mon 12:30-13:30

2.2 Resources

1. Folder containing the class notes and other reading materials are here.
2. 2018 class notes and other reading materials are here.

2.3 Lecture Notes

No	Lecture Title
1	Title
2	Title
3	Title
4	Title
5	Title
6	Title
7	Title
8	Title

2.4 Evaluation

Class Participation	25
Mid Sem	30
End Sem	45
Total	100

Note:

1. Class participations is evaluated by short quizzes during class hours, short assignments, attendance, etc.
2. Distribution of grades will be similar for both sections (S1 and S2).

2.5 Teaching Assistants

1. Remya K P (Ph. D)
2. Anna Charly (Ph. D)
3. Bijul Ravindran (Ph. D)
4. Plus Few Others ...

References

- [1] D R Drew. *Traffic flow theory and control*. McGraw-Hill Book Company, New York, 1968. IITB-.
- [2] Highway Capacity Manual. *Transportation Research Board*. National Research Council, Washington, D.C., 2000.
- [3] L R Kadiyali. *Traffic Engineering and Transportation Planning*. Khanna Publishers, New Delhi, 1987.
- [4] S K Khanna and C E G Justo. *Highway Engineering*. Nemchand Bros., Roorkee, 1991.
- [5] M L Manheim. *Fundamentals of transportation systems analysis Vol.1*. MIT Press, 1978.
- [6] Adolf D. May. *Fundamentals of Traffic Flow*. Prentice - Hall, Inc. Englewood Cliff New Jersey 07632, second edition, 1990.
- [7] William R McShane, Roger P Roess, and Elena S Prassas. *Traffic Engineering*. Prentice-Hall, Inc, Upper Saddle River, New Jersey, 1998.
- [8] J D Ortuzar and L G Willumnsen. *Modeling Transport*. John Wiley and Sons, New York, 1994.
- [9] C. S Papacostas. *Fundamentals of Transportation Engineering*. Prentice-Hall, New Delhi, 1987.
- [10] M Whol and B V Martin. *Traffic system analysis for engineers and planners*. McGraw Hill, Inc., 1983.