

Jordan University
Civil Engineering Department

Traffic Flow Theory
(941783)

2nd Semester 2016/2017

Instructor:

Prof. Adli H. Al Balbissi

References:

1. "Traffic and Highway Engineering", N. J. Garber and L. A. Hoel, West Publishing Company, 3rd edition, 2002.
2. "Traffic Engineering", R. P. Roess, W. R. McShane and E. S. Prassas, Prentice Hall Publication, 2nd edition, 1998.
3. "Transportation Engineering and Planning", C. Papacostas and P. Prevedouros, 3rd edition, Prentice Hall, 2001.
4. "Introduction to transportation Engineering", J. H. Banks, McGraw-Hill, 1998.

Course Evaluation:

Midterm	(Monday 20 / 3 / 2017)	20 %
Paper proposal	(deadline Monday 27/2/2017)	5 %
Paper	(deadline Monday 17/4/2017)	15%
Student lecture	(Monday 3/4 & 10/4/2017)	10%
Class participation		10 %
Final examination	(To be announced later)	40 %

Course Contents:

Elements of traffic analysis:

Basic traffic stream models

Mathematical models of traffic flow

Analysis of arrivals: deterministic and probabilistic queuing models

Analysis of highway bottlenecks

Analysis of signalized intersections

Traffic delay models

Shock waves in traffic streams

Gap and gap acceptance models