Traffic Studies: TR 681  
Fall 2002

This course focuses on the characteristics of traffic flow and their quantification and analysis through field studies of various sorts. Parametric measures – speed, flow, density, headway, spacing, etc. – will be defined and illustrated. Uninterrupted and Interrupted flow characteristics will be compared and discussed, including historic trends. Basic studies on traffic volumes, speeds, travel times, parking, and accidents will be treated. Statistical analysis of the data will be demonstrated.

Textbooks: Traffic Engineering by Roess, McShane, and Prassas  
Recommended: Schaum’s Beginning Statistics

Week 1: Introduction Monday, September 9

NO CLASSES MONDAY September 16th, School Closed.

Week 2: Components of the Traffic Stream Tuesday, September 17
Week 3: Volume Studies Monday, September 23
Week 4: Actual Data Collection Workshop and Monday, September 30  
Use of Spreadsheets for Data Analysis

Week 5: Speed Studies, Travel Time Studies, Tuesday, October 7  
Delay Studies
Week 6: Statistics Wednesday, October 16  
1. Real randomness
2. Distributions
3. Histograms and distributions
4. Mean, Variance, standard deviations, etc.
5. confidence bounds, sample sizes
6. hypothesis testing

Week 7: Surveys/ Do actual survey Monday, October 21

Week 8: Midterm Monday, October 28th

Week 9: Accident Studies Monday, November 4
Week 10: Parking Studies Monday, November 11
Week 11: Regression Analysis Monday, November 18
Week 12: SPSS Monday, November 25
Week 13: Review Monday, December 2

Week 14: Final Exam Monday December 16