George Mason University **Fall 2008**

CEIE 360
Introduction to Transportation Engineering

Lecture: Tuesday 12:00-1:40pm Laboratory: Tuesday 1:50-4:20 pm
Lectures & Labs Location ST 1 Room 120

Date	Topic	Reading
8/26	Introduction to class; U.S Transportation System	Ch 1 and outside reading
9/2	Manual on Uniform Traffic Control Devices	Outside reading
	Vehicle Performance	Ch 2
9/9	Review of Curve Geometry: Vertical Alignment	3.1-3.2
9/16	Highway Geometric Design: Horizontal Alignment	3.2-3.3
9/23	Complete Chapter 3 & Problem Solving Workshop	3.4
9/30	Introduction to Traffic Stream Characteristics	5.1-5.2
	Traffic Stream Characteristics – Queuing	5.3-5.4
	Exam Review	
10/7	EXAM NO. 1 (Chapters 1, 2, 3)	
10/14	No class – Columbus Day Weekend Break – Monday classes held on Tuesday	
10/21	Traffic Stream Characteristics	5.4-5.6
	Highway Capacity and Level of Service Analysis	6.1-6.2
10/28	Highway Capacity Concepts	6.3-6.4
	Highway Capacity Concepts	6.5-6.6
11/04	Traffic Control and Analysis	7.1-7.2
	Exam Review	
11/11	EXAM NO. 2 (Chapter 5, 6)	
11/18	Complete Traffic Control and Analysis & Problem Solving Workshop	7.3-7.6
11/25	Travel Demand and Traffic Forecasting	8.1-8.4
12/02	Travel Demand and Traffic Forecasting & Exam Review	8.4-8.6
12/09	University Reading Day – No Class	
12/16	FINAL EXAM	

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Lab Schedule

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Date	Topic
8/26	**Lab 1: Transportation Funding (WI)**
9/2	Writing Workshop Format and examples of labs; technical report; examples of citation format Use of writing partner to improve writing and editing skills Equipment training workshop Review of basic field data collection rules **Lab 2: Lab 1 Traffic Control Devices Inventory from Lab Book** DUE: Draft Lab 1 assigned 8/26
9/9	**Lab 3: Spot Speed Study, Part 1 (WI)** Return of edited Lab 1 to students
9/16	**Lab 3: Spot Speed Study, Part 2 (WI)** DUE: Final Lab 1 & Final Lab 2 assigned 9/2
9/23	Problem solving workshop for chapter 2,3 *Rain Date for Lab 3 DUE: Draft Lab 3 assigned 9/9 & 9/16
9/30	**Lab 4: Lab 10 Application of Queuing Analysis from Lab Book** Return of edited Lab 3 to students
10/07	Field Trip – Virginia Department of Transportation
10/14	Columbus Day Weekend – Monday Classes held on Tuesday- No Class
10/21	**Lab 5: Signalized Intersection Volume & Geometric Layout Study (WI)** DUE: Final Lab 4 assigned 10/07 DUE: Revised Lab 3 returned 9/30
10/28	Continuation of Lab 5: Queuing and delay study (Lab 5 in Lab Book)
11/04	**Lab 6: Signalized HCS Analysis – Computer Lab** DUE: Draft Lab 5
11/11	Field Trip – Turner-Fairbank Highway Research Center
11/18	Return of Lab 5 for editing by students
11/25	In Class Lab on Planning Applications
12/02	Technical Writing Revisited DUE: Combination Final Report for Labs 5 & 6

Grading

Homework Assignments	20%
Laboratory Reports	20%
Exam #1, #2	30%
Final Exam	20%
Class Participation	10%
	100%

Writing Intensive (WI) Requirement

This course fulfills the Writing-Intensive requirement in the civil and infrastructure engineering major. All laboratory reports will be graded for their writing quality. In addition, two of the reports are designated WI assignments, with a requirement to respond to the Instructor's critique by rewriting and resubmitting the assignment.

Homework Policy: 8 homework assignments will be given in the course with specific due dates given at the time of the assignment. **Late homework will not be accepted**. A student's overall homework grade, which will be used when calculating final grades, will be calculated using the student's 7 highest homework grades.

Plagiarism Policy: The instructor for this course will be using the on-line system known as "Turn It In" which can check for proper citation of references.

Grading Policy: Please refer to the University Catalog regarding cheating.

Text: Fred L. Mannering , Walter P. Kilareski and Scott Washburn. *Principles of Highway Engineering and Traffic Analysis,* 3rd edition. John Wiley and Sons. 2005.
A.S. Murthy and Henry Mohle, *Transportation Engineering Basics,* 2nd edition, ASCE Press, 2001
Guide to Writing as an Engineer 2nd edition, Beer, Wiley & Sons

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