Purdue University School of Civil Engineering

CE 565: Traffic Operation and Control

Instructor: Darcy Bullock, P.E. Office: Civil 4115 Meeting Times: M:1230-13:30; 14:30-1730; W: 1230-1330 Phone: 765/494-2226 W: 13:30-14:30 T (or by appointment) Office Hours: FAX: 765/496-1105 Internet: Location: CIVIL 2113 (Lab 2123), Phys 14 darcy@purdue.edu Web: http://ce.ecn.purdue.edu/~ce565/

Textbooks: (TSB) Nichols, A. and D. Bullock, "Design Guidelines for Deploying Closed Loop

Systems," FHWA/IN/JTRP-2001/11, November 2001. Purchase in CIVL 4154.

(TCSH) Gordon et. al., "Traffic Control Systems Handbook," FHWA, 1996.

Potter Reserve:

(May) May, "Traffic Flow Fundamentals", Prentice Hall, 1990.

(MTES) Robertson, H., J. Hummer, and D. Nelson, "Manual of Transportation

Engineering Studies", Prentice Hall, 1994.

(TEH) Pline, J.L, "ITE Traffic Engineering Handbook", Prentice Hall, 1992.

(AASHTO) "A Policy on Geometric Design of Highways and Streets", American Association

of State Highway and Transportation Officials", 1990.

(HCM94) "Highway Capacity Manual", Special Report 209, National Research Council,

Transportation Research Board, Washington, D.C., 1994. (Filed under TRB at

Potter Reserve Desk). (DB is checking on status of HCM2000).

(MUTCD) "Manual on Uniform Traffic Control Devices", Federal Highway Administration,

1988.

(TDH) "Traffic Detector Handbook", Institute of Transportation Engineers, Second

Edition.

(MTSD) Kell, J. and I. Fullerton, "Manual of Traffic Signal Design," Institute of

Transportation Engineers, Second Edition, 1991.

Course Objective: This course is designed to introduce students to traffic flow theory, traffic signal

systems, and typical traffic engineering studies.

Grading: Grades will be computed using the following weights:

Mid Term Exam 20%
Final (Notebook & Exam) 20%
Homework 20%
Lab Units 20%
Paper Review/Presentation 10%
Class Participation 10%

Exams: The midterm exam will be administered during the scheduled class meeting.

Homework: Each student is required to submit his/her own solution to these assignments.

Homework is due at the start of class on the date the assignment is due. Late homework assignments will not be accepted. Each homework problem will be graded out of 5 points. **Three** points will be based upon presentation (neatness, organization, completeness, documentation, and references). **Two** points will be based upon technical accuracy. This grading weight is designed to reflect

professional importance of documenting engineering calculations.

Reading: You are expected to perform the reading assigned for each period before coming

to class.

Attendance: You are required to attend all class meetings. Administrative announcements

take place at the beginning of class. It is your responsibility to be punctual.

Class Participation: Many of the class meetings will involve discussions of recent readings or current

projects. All students are expected to participate in these discussions.

Academic Honesty: Academic dishonesty will be dealt with according to University regulations and

policies. It is your responsibility to understand these regulations prior to

submitting your first homework.

Notebook At the conclusion of this course, your notebook should provide a valuable

reference on traffic operations and control. You should use a three ring binder with labeled tab dividers to organize your class notes, lab studies, and homework. Periodically handouts will be distributed reminding you of the items that should be in your notebook. To encourage a neatly organized notebook, your final exam grade will be computed half from your course notebook and half

from a take home problem.