COURSE OUTLINE

DAY ONE

7:30 – 8:00 Check-in and Registration

8:00 – 8:15 Introductions

8:15 – 8:45 Overview of Course
   1) Discuss purpose and need for signal timing
   2) Course Objectives (signal timing policy, process, principles, and theories)
   3) Organization of Course

8:45 – 9:10 Discussion on Field Conditions to Observe

9:10 - 9:15 Break

9:15 – 10:10 MODULE A: Definitions and Capacity Concepts (presentation and class discussion)
   1) Introduction
   2) Basic Definitions
   2) Characteristics affecting signal timing
   3) Capacity and critical volume analysis
   4) Define basic signal timing variables of cycle length, split, and offset
   5) Understand manner in which they are calculated based on traffic characteristics

10:10 – 10:15 Break

10:15 – 11:10 MODULE A: Capacity Concepts (continued)
   6) Capacity and critical movement analysis (spreadsheet examples)
   7) Traffic volume analysis (spreadsheet example)

11:10 – 11:15 Break

11:15 – 11:40 MODULE B: Traffic Signal Design (signal timing consideration), Part 1
   1) Physical component of a traffic signal system
   2) Identify three types of controllers including their functional capabilities,
applications, and limitations
3) Phasing overview: ring-and-barrier diagrams/designs
4) Class exercise: ring-and-barrier design

11:40 – 12:10 MODULE C: Basic Signal Controller Parameters, Part 1
   1) Settings that define the duration of a vehicle phase

12:10 – 1:10 Lunch

1:10 – 1:40 MODULE C: Basic Signal Controller Parameters, Part 1 (continued)
   2) Pedestrian timing
   3) Clearance intervals (yellow and all-red)

1:40 – 2:10 Hands-On Class Problems
   PlanSig examples (you work ‘em)
   1) Applying critical movement analysis, pedestrian timing, and clearance timing

2:10-2:15 Break

2:15-3:10 Hands-On Class Problems (continued)
   2) Converting PlanSig results to cycle sequence

3:10 – 3:15 Break

3:15 – 4:05 Hands-On Class Problems

4:05 – 4:10 Break

4:10 – 4:55 Complete Hands-On Problem
   Compare PlanSig results to Synchro

4:55 – 5:00 Wrap-up of Day One Course
DAY TWO

8:00 – 8:55 Review what we learned on Day One

8:55 - 9:00 Break

9:00 – 10:00 MODULE D: Traffic Signal Design (signal timing consideration), Part 2
   1) Detector logic and extension setting
   2) Traffic signal controllers

10:00 – 10:05 Break

10:05 – 10:55 MODULE E: Basic Signal Controller Parameters, Part 2
   1) Introduction to signal timing sheets (e.g. Caltrans, BiTran and Naztec)
   2) Recall and other controller features
   3) Density timing

10:55 – 11:00 Break

11:00 – 12:00 More Hands-On Class Problems

12:00 – 1:00 Lunch

1:00 – 2:00 More Hands-On Class Problems

2:00 – 2:05 Break

2:05 – 3:05 Final Overall Timing Problem (requires all that you have learned)

3:05 – 3:10 Break

3:10 – 3:45 Filling-in various timing sheets

3:45 – 4:15 Summary – What Have You Learned?

4:15 – 4:30 Evaluations and Dismissal