# CE 474

## Class 42

## 7 December 2015

AC04 Base case → AC06 Split analysis → AC07 Cycle length analysis → AC08 Offset analysis → AC09 Summary

AC05 Split analysis → AC06 Split analysis

AC01, AC03 TSD w/offsets → AC08 Offset analysis
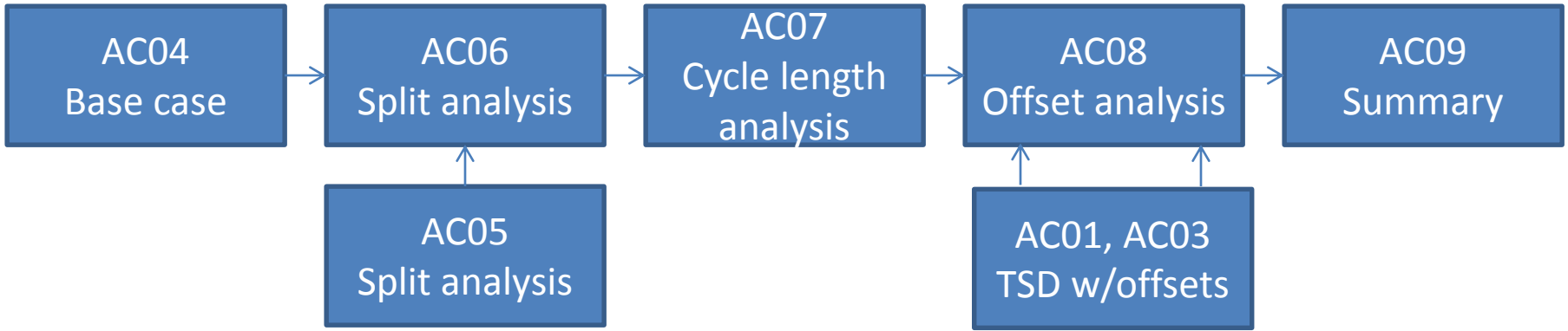
**C39 (11.30)**

AC07 Cycle length analysis

AC08 Offset analysis

**C40 (12.02)**

Exam #2

**C41 (12.03)**

AC07 Cycle length analysis

AC08 Offset analysis

**C42 (12.07)**

AC09 Summary

AC11 Presentation

**C43 (12.09)**

Course assessment Presentation preview

**C44 (12.10)**

Presentations

## Activity C09 - Design Elements

**Purpose:**
The purpose of this activity is to assemble the design elements that will form the basis for your final design presentation.

## Activity C11-Design Presentation

**Purpose:**
The purpose of this activity is to present your timing plan for the corridor system design project.

# AC01, AC03

- Task:
  - Develop TSD tool
- Output:
  - Produce offsets that will result in good quality progression in both directions of your arterial
- Issues:
  - How can you use these offsets in AC08?
  - How can you modify travel times to account for initial queues at downstream signal?

# AC02

- Task:
  - Observe arrival patterns
- Output:
  - Quality of progression using proportion of arrivals on green
- Issues:
  - How does the proportion of arrivals on green for your six approaches change as you change offsets in VISSIM?

# AC04

- Task:
  - Build base case
- Output:
  - Base case performance data for movement, intersection, and system
- Issues:
  - Data to be used to compare with all future improvements

# **AC05**

- Task:
  - Determine sufficiency of capacity and split times for each intersection
- Output:
  - Split times for each phase at each intersection
- Issues:

# AC06

- Task:
  - Run VISSIM with new split times
- Output:
  - Performance data for movement, intersection, and system
- Issues:
  - How to characterize change or improvement
  - Visual vs. numeric data
  - Tweaks to be made

# AC07

- Task:
  - Select system cycle length

- Output:
  - Performance data for range of cycle length alternatives (60s – 110s)
  - Delay/stops curves for intersection and system

- Issues:
  - Need one system cycle length
  - Delay points to minimum cycle length
  - Green band points to higher cycle length
  - How can results from AC03 help?

# AC08

- Task:
  - Select offsets for each intersection
- Output:
  - Performance data for range of offset alternatives (0s – C) for each intersection pair
  - Delay/stops curves for each pair (internal intersections only)
- Issues:
  - Only consider 6 internal TH movements
  - Trade-offs: Conflicting data (delay vs. stops)
  - How to use TSD data (and how do offsets compare)?
  - How to use PDD data (travel times, %platoon served)?