# Pavement Management Systems and Preservation Strategies (CCB-02)

## COURSE OUTLINE

**Session 1**

Introductions

Pavement management principles/overview

- Basic components
- Methods of analysis
- Prioritization and optimization
- Data collection and state of practice

Inventory Data

- Inventory plan and data elements
- Data collection methods

**Session 2**

Pavement condition surveys

- Pavement deterioration
- Condition survey methods
- AC pavement distresses and causes
- PCC pavement distresses and causes
- Distress identification

Classroom exercise: Pavement condition indices

- Pavement condition index (PCI) concepts
- PCI Calculation exercises - AC & PCC

**Session 3**

Quality management

- Survey options - full, sampled
- Survey QA

Prediction models

- Importance and development
- Types of models
- How an agency can look at models and make improvements

Types of software available

- StreetSaver
- MicroPAVER
- Other software
- Selecting PMS software

Integrating maintenance treatments into a PMS

- Decision trees and unit costs
- Examples

**Session 4**

Pavement Preservation and Preventive Maintenance Strategies

- AC Maintenance
  - Crack sealing
  - Surface sealing - fog, slurry, chip, micro, Cape,
  - Bonded wearing course
- PCC Maintenance
  - Joint sealing
  - Spall repair
  - Diamond grinding
- AC Rehabilitation
  - Cold In-Place Recycling
  - Full Depth Recycling
  - Hot In-Place Recycling
  - Overlays
  - Long Life Pavements
- PCC Rehabilitation
  - Slab repair and replacement
  - Slab stabilization and jacking
  - PCC & AC overlays

**Session 5**

Prioritization concepts and funding scenarios

- Analysis methods and ranking concepts
- Multi-year prioritization
- Optimization
- Funding scenarios - needed data
- Restoring /maintaining conditions

Developing a multi-year work plan

- Optimal versus practical
- Utility coordination
- Packaging projects
- Examples

Communications and Presentations

- Know your audience and organization
- Budget and funding sources
- Removing PMS obstacle and maintaining support
- Successful examples