

## **I. COURSE DESCRIPTION**

The design and deployment of Road Weather Information Systems (RWIS) represents a significant time and money commitment by transportation agencies. Field personnel are often not fully informed of the maintenance and financial impacts of these systems, as well as design and deployment considerations that must be made. Many of these personnel are not experienced enough to inform themselves of these things without assistance and/or education.

The course starts with an instructional phase and ends with a workshop phase. The instructional phase begins with an overview of RWIS; this includes an explanation of why these devices are important, and how they can and will contribute to improving the safety and operations of our nation's roadways. We then discuss design and deployment issues for RWIS equipment including power, communications, and peripheral integration considerations; siting considerations related to the larger RWIS network; and financial considerations including benefit vs. cost discussions, procurement issues, and data value and ownership. The instructional phase of the course finishes with a discussion of the operational and maintenance issues of RWIS equipment including equipment calibration, maintenance access, vendor support/maintenance, equipment life cycle and planned replacements/upgrades.

The course finishes with a half-day workshop where local issues are overlaid on example case studies. The participants are divided into small workgroups where they independently create an action plan in response to the particular case study example using the knowledge gained during the course's instructional phase and their particular local operational, political, and financial considerations.

## **II. TARGET AUDIENCE**

Federal, State, and local transportation, traffic, operations/ITS and safety engineers; maintenance personnel; and planners who are involved in RWIS or ITS systems.

## **III. COURSE GOAL**

The purpose of this course is to provide field and management staff with basic knowledge and skills necessary for successful RWIS design, deployment, and operations.

## **IV. COURSE OUTCOMES**

The four (4) course outcomes presented below are explicitly accomplished and evaluated within one or more of the five (5) course lessons and the ½ day Action Plan workshop. At the end of this course, participants will be able to:

1. Discuss the value of regional and national RWIS systems.
2. Explain how RWIS can benefit their region.
3. Identify and discuss key considerations when installing RWIS including: siting, power, communication, equipment integration, data formatting, maintenance, and procurement.
4. Develop an Action Plan and identify the steps to successfully integrate RWIS considering their particular operations.

## V. COURSE AGENDA

<b>Day ONE – Lesson Title</b>	<b>Lesson Duration (minutes)</b>	<b>Lesson Time</b>
Lesson 1: Introductions – Course Overview	45 min	8:00 AM – 8:45 AM
Lesson 2: National/Regional Level Overview	45 min	8:45 AM – 9:30 AM
<b>*** BREAK ***</b>	<b>15 min</b>	<b>9:30 AM – 9:45 AM</b>
Lesson 3: RWIS Benefits for Local Road Networks	50 min	9:45 AM – 10:35 AM
<b>*** BREAK ***</b>	<b>15 min</b>	<b>10:35 AM – 10:50 AM</b>
Lesson 4: RWIS Installation Considerations #1	55 min	10:50 AM – 11:45AM
<b>*** LUNCH ***</b>	<b>60 min</b>	<b>11:45 AM – 12:45 PM</b>
Case Study – Nugget Canyon	20 min	12:45 PM – 1:05 PM
Lesson 5: RWIS Installation Considerations #2	55 min	1:05 PM – 2:00 PM
<b>*** BREAK ***</b>	<b>15 min</b>	<b>2:00 PM – 2:15 PM</b>
Lesson 6: RWIS Installation Considerations #3	45 min	2:15 PM – 3:00 PM
<b>*** BREAK ***</b>	<b>15 min</b>	<b>3:00 PM – 3:15 PM</b>
Lesson 7: Day 1 Wrap-Up and Evaluations	45 min	3:15 PM – 4:00 PM

<b>Day Two – Lesson Title</b>	<b>Lesson Duration (minutes)</b>	<b>Lesson Time</b>
Review from Day 1 and Workshop Set-Up	20 min	8:00 AM – 8:20 AM
Action Plan: Group activities	75 min	8:20 AM – 9:35 AM
<b>*** BREAK ***</b>	<b>15 min</b>	<b>9:35 AM – 9:50 AM</b>
Action Plan: Group feedback	65 min	9:50 AM – 10:55 AM
Course Wrap-Up, Evaluations, & CEU Certificates	20 min	10:55 AM – 11:15 AM