

## C311

# QCS Sensor Correlation



Learn the fundamentals and prepare for certification of sensor correlation for the ABB QCS sensors.

### Course type and methods

This is an instructor led workshop with short presentations and demonstrations, extended exercises, and hands-on sessions and discussion.

### Student Profile

This course is targeted to Field Service personnel who are responsible for maintenance of a Network Platform QCS system.

### Prerequisites

Students should have attended the C232 Smart Platform with QCS LAN course, C235 Network Platform with QCS LAN, or have extensive experience working with the Smart Platform or Network Platform QCS system.

### Course objectives

Upon completion of this course the participants will be able to:

- Ensure the sensors are ready for correlation
- Calculate the expected sensor minus laboratory results of correlation efforts, including existing procedures
- Analyze the application and choose the correct method for each sensor
- Implement and refine the procedure for each correlation

- Perform standard correlation tests
- Analyze initial results and provide control charts for ongoing correlation results
- Investigate failure of correlation results to fall within action limits
- Calculate new grade code variables based on correlation results
- Support ongoing correlation with SPC style methods

### Main Topics

- Sensor Preparation
- Use of Electronic Worksheets
- Basic Correlation Techniques
- Laboratory Procedures
- Individual Sensor Correlation Techniques

### Duration

The duration is 5 days

---

## Course Outline

---

Day 1	Day 2	Day 3	Day 4	Day 5
<ul style="list-style-type: none"><li>• Course Introduction</li><li>• Correlation Introduction</li><li>• Documentation</li><li>• Preparation for correlation</li><li>• Short and Long term stability</li><li>• Base Calibration</li></ul>	<ul style="list-style-type: none"><li>• Sensor Preparation Lab Part 1</li><li>• Worksheets</li><li>• Graphing</li><li>• Sensor Preparation Lab</li><li>• Slope and Offset</li></ul>	<ul style="list-style-type: none"><li>• Expected Deviation</li><li>• Lab</li><li>• Correlation Methods</li><li>• Laboratory Procedure</li><li>• Basis Weight</li></ul>	<ul style="list-style-type: none"><li>• Moisture</li><li>• Caliper</li><li>• Ash</li><li>• Optipak</li><li>• Gloss</li></ul>	<ul style="list-style-type: none"><li>• Color</li><li>• Effects on Correlation</li><li>• Cross Machine profile correlation</li><li>• Final Exam</li><li>• Course Critique</li></ul>

---

To register, contact the North America Customer Service Center or visit us online ABB Inc.  
+1 800 HELP 365 Option 2, Option 4  
Fax: +1 919 666 1388  
abbuniversity@us.abb.com

**abb.us/abbuniversity**

---

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB AG does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB AG.  
Copyright© 2017 ABB  
All rights reserved