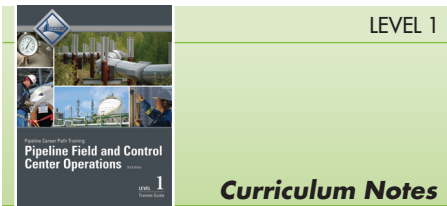


L1 PIPELINE FIELD AND CONTROL CENTER OPERATIONS



LEVEL 1

Curriculum Notes

- 115 Hours
- To Be Released: 2017, Third Edition
- Instructor's Package includes access to lesson plans, PowerPoints® and performance exams available from the Instructor Resource Center at www.nccerirc.com.

PAPERBACK	ISBN
Trainee Guide: \$100	978-0-13-480570-2
Instructor's Guide: \$100	978-0-13-480837-6

MODULES

All of the modules listed below are included in the Trainee and Instructor Guide(s) listed above. The following pricing information is for ordering individual modules which can be purchased through the online bookstore at www.nccer.org/bookstore.

Quality Control and Measurement (20 Hours)

Trainee \$20 ISBN 978-0-13-038240-5
 Instructor \$20 ISBN 978-0-13-038257-3
 (Module ID 67106-02) Focuses on the importance of quality control and accurate measurement as they affect safety, customer service, and the company's reputation. Topics include taking samples, performing product testing, and product testing and measurement tools.

Product Batch and Pig Tracking (10 Hours)

Trainee \$20 ISBN 978-0-13-038228-3
 Instructor \$20 ISBN 978-0-13-038238-2
 (Module ID 60104-02) Describes how to track pipeline product line inventories; handle scheduled pipeline shipments; identify product interface changes; and launch, receive, and track pigs through the pipeline and facility.

Field Quality Control (15 Hours)

Trainee \$20 ISBN 978-0-13-038231-3
 Instructor \$20 ISBN 978-0-13-038242-9
 (Module ID 60107-02) Introduces field quality control procedures including activation of tank mixing devices, collection of product samples, product testing, pipeline switching, product blending operations, and injection of appropriate additives.

Field Measurement (20 Hours)

Trainee \$20 ISBN 978-0-13-038232-0
 Instructor \$20 ISBN 978-0-13-038243-6
 (Module ID 60108-02) Introduces techniques used in field measurement of products in the pipeline, including measurement components, types of meters, measurement of custody transfers and receipts, verification of meter accuracy, waterdraw calibration techniques, and utilization of tank strappings.

Liquid Pipeline Measurement and Quality Control (20 Hours)

Trainee \$20 ISBN 978-0-13-038264-1
 Instructor \$20 ISBN 978-0-13-038273-3
 (Module ID 65107-02) Explains how to activate tank mixing devices, perform product testing, and perform pipeline grade changes and tank capacity operations. Also explains how to use and inject appropriate additives, identify types of meters, maintain accurate measurement on all custody receipts, and the processes and techniques used to prove meters.

SCADA (30 Hours)

Trainee \$20 ISBN 978-0-13-103147-0
 Instructor \$20 ISBN 978-0-13-103155-5
 (Module ID 64307-02) Explains pipeline operations systems, including control, communications, SCADA, and PLCs. Explains redundant systems and control system troubleshooting.