

# 2017 ISA Water/Wastewater and Automatic Controls Symposium

August 8 to 10, 2017 • Wyndham Lake Buena Vista Resort • Orlando, Florida, USA  
Presented by the ISA Water/Wastewater Industries Division – [www.isawwsymposium.com](http://www.isawwsymposium.com)  
Technical co-sponsors: Florida AWWA Section, the WEF Automation and Info Tech Committee ,  
Florida Water Environment Association, Instrumentation Testing Association, and ISA Tampa Bay  
Section



August 7-8, 2017 – Optional Short Course

## IACS Cybersecurity Operations and Maintenance

ISA Course IC37. Version 1.7

### Course Description

**Length:** 2 days

**Date:** Mon-Tue, August 7-8, 2017

**CEU Credits:** 1.4

**Course Hours:** 8:00 a.m. – 4:00 p.m., includes lunch both days

**Price:** \$2,000 for ISA Members, \$2,500 List

### Course Schedule

DAY	Topics, Exercises, Etc.	Time
Day 1 A.M.	Welcome and Pre-Instructional Survey	0.50 hour
	Introduction to the ICS Cybersecurity Lifecycle	0.25 hour
	Section 1: Review of the Assess Phase	0.25 hour
	Section 2: Review of the Design Phase	0.25 hour
	Section 3: IACS Asset Management	0.25 hour
	Exercise #1: Asset Inventory	0.25 hour
	Section 3: System Hardening	0.50 hour
	Exercise #2: ICS Device Hardening	0.50 hour
Day 1 P.M.	Exercise #3: Disabling USB Storage Devices	0.50 hour
	Exercise #4: Whitelisting	0.50 hour
	Section 3: Access Control & Remote Access	0.25 hour
	Section 3: Patch Management	0.25 hour
	Exercise #5: WSUS demo	0.25 hour
	Section 3: Malware Management	0.50 hour
	Exercise #6: PLC backup and configuration management	0.50 hour
	Exercise #7: Complete a MOC form	0.50 hour
Day 2 A.M.	Section 3: Information & Documentation Management	0.25 hour
	Daily Progress Reviews & Overview of Day 2 Objectives	0.25 hour
	Section 3: Change Management	0.50 hour
	Section 3: Physical Security	0.25 hour
	Exercise #8: What's wrong with this picture	0.25 hour
	Section 4: Detecting Abnormal Activity	0.25 hour
	Section 4: Network and Host Intrusion Detection	0.25 hour
	Section 4: Monitoring Logs	0.50 hour
	Exercise #9: Event Detection, Tracking, and Log Monitoring	0.25 hour
	Section 4: Periodic testing / auditing	0.25 hour
Exercise #10: Vulnerability scanning	0.25 hour	

Day 2 P.M.	Daily Progress Reviews & Overview of Day 3 Objectives Section 5: Incident Response Lifecycle Section 5: Incident Response Planning Section 5: Incident Management Section 5: Post Incident Analysis & Forensics Exercise #11: Network packet capture analysis Exercise #12: Troubleshooting and Forensics Review of Overall Course Objectives Post-Instructional Survey Final Course Evaluation	0.25 hour 0.25 hour 0.25 hour 0.25 hour 0.50 hour 0.50 hour 0.25 hour 0.50 hour
		14 hours = 1.4 CEUs