

# Course Schedule February – December 2014

For more information or to register, visit  
[www.isa.org/web14/schedule](http://www.isa.org/web14/schedule) or call +1 919-549-8411.  
Course schedule and pricing are subject to change.

Course #	Course Title	Course URL	February	March	April	May	June	July	August	September	October	November	December
<b>Fundamental Skills</b>													
FG02	Mathematics for Instrumentation Technicians	<a href="http://www.isa.org/training/FG02">www.isa.org/training/FG02</a> *											
FG07	Introduction to Industrial Automation and Control	<a href="http://www.isa.org/training/FG07">www.isa.org/training/FG07</a>	24–28 (TX)	24–28 (NC)	4/28–5/2 (DE)	19–23 (NC)	16–20 (CA <sup>1</sup> )	21–25 (NC)	25–29 (IL)	15–19 (NC)		3–7 (NC)	
FG15	Developing and Applying Standard Instrumentation and Control Documentation	<a href="http://www.isa.org/training/FG15">www.isa.org/training/FG15</a>	3–4 (NC)			29–30 (PA)			18–19 (TX)			10–11 (NC)	
<b>Technical Skills</b>													
<b>Instrumentation Maintenance</b>													
TI24	Instrument Calibration and Documentation for FDA-Regulated Industries <b>NEW!</b>	<a href="http://www.isa.org/training/TI24">www.isa.org/training/TI24</a>	17–21 (NC)			5–9 (PA)	2–6 (NC)			8–12 (MA)			8–12 (NC)
TI25	Installing, Calibrating, and Maintaining Electronic Instruments	<a href="http://www.isa.org/training/TI25">www.isa.org/training/TI25</a>	24–28 (NC)		7–11 (PA)		9–13 (NC)		25–29 (TX)		6–10 (CA <sup>1</sup> )		15–19 (NC)
TS16	Advanced Operation of Digital (Smart) Transmitters and Digital Valve Controllers	<a href="http://www.isa.org/training/TS16">www.isa.org/training/TS16</a>				19–23 (NC)		21–25 (CA <sup>1</sup> )		15–19 (NC)			
TI15	Electrical Systems and Principles	<a href="http://www.isa.org/training/TI15">www.isa.org/training/TI15</a>			7–9 (NC)						13–15 (NC)		
TI20	Industrial Electronics	<a href="http://www.isa.org/training/TI20">www.isa.org/training/TI20</a>			10–11 (NC)						16–17 (NC)		
TI21	Electrical Noise Effects on Instrumentation Control Equipment	<a href="http://www.isa.org/training/TI21">www.isa.org/training/TI21</a>			14–15 (NC)						20–21 (NC)		
TI06	Maintaining Pneumatic Components in Measurement and Control	<a href="http://www.isa.org/training/TI06">www.isa.org/training/TI06</a> *											
<b>Industrial Communications</b>													
TS06	Industrial Data Communication Systems	<a href="http://www.isa.org/training/TS06">www.isa.org/training/TS06</a>	17–21 (NC)			19–23 (CA <sup>1</sup> )			25–29 (NC)			3–7 (TX)	
TS12	Industrial Networking and Security	<a href="http://www.isa.org/training/TS12">www.isa.org/training/TS12</a>	24–28 (NC)				16–20 (NC)		18–22 (CA <sup>1</sup> )			17–21 (TX)	
TS13	Industrial Automation Cybersecurity: Principles and Application	<a href="http://www.isa.org/training/TS13">www.isa.org/training/TS13</a>		10–14 (NC)		19–23 (PA)		28–8/1 (NC)			13–17 (TX)		
TS14	IT Survival Basics for I&C Personnel	<a href="http://www.isa.org/training/TS14">www.isa.org/training/TS14</a>		17–21 (NC)				14–18 (CA <sup>1</sup> )			20–24 (PA)		8–12 (NC)
<b>Control Systems</b>													
TC05	Tuning Control Loops	<a href="http://www.isa.org/training/TC05">www.isa.org/training/TC05</a>	10–12 (NC)		7–9 (TX)		2–4 (DE)		4–6 (CA <sup>1</sup> )		6–8 (NC)		
TC10	Troubleshooting Instrumentation and Control Systems	<a href="http://www.isa.org/training/TC10">www.isa.org/training/TC10</a>	13–14 (NC)		10–11 (TX)		5–6 (DE)		7–8 (CA <sup>1</sup> )		9–10 (NC)		
<b>Automation Professional Skills</b>													
<b>Asset Management and Enterprise Integration</b>													
IC55	Implementing Business-to-MES Integration Using the ANSI/ISA95 Standards	<a href="http://www.isa.org/training/IC55">www.isa.org/training/IC55</a>		20–21 (NC)			9–10 (PA)						
IC60	Applying Manufacturing Execution Systems (MES)	<a href="http://www.isa.org/training/IC60">www.isa.org/training/IC60</a> *											
MT07	Project Management for Automation and Control	<a href="http://www.isa.org/training/MT07">www.isa.org/training/MT07</a> *											
MT10	Advanced Project Management for Team Leaders	<a href="http://www.isa.org/training/MT10">www.isa.org/training/MT10</a> *											
<b>Building Automation</b>													
EA15	Introduction to Building Automation Systems	<a href="http://www.isa.org/training/EA15">www.isa.org/training/EA15</a> *					3–5 (NC)			8–10 (NC)			
<b>Communications</b>													
EA05	Database Management for Industrial Automation and Control	<a href="http://www.isa.org/training/EA05">www.isa.org/training/EA05</a> *											
IC30	SCADA Systems Integration	<a href="http://www.isa.org/training/IC30">www.isa.org/training/IC30</a> *											
TC30P	PLC Automation: Basic PLC Structure, Programming, Installation, and Maintenance	<a href="http://www.isa.org/training/TC30P">www.isa.org/training/TC30P</a>	17–21 (TX)						11–15 (TX)				
TC36P	Programming Languages (IEC 6-1131-3) Utilized by PLC/PAC Systems	<a href="http://www.isa.org/training/TC36P">www.isa.org/training/TC36P</a>			28–5/2 (TX)						27–31 (TX)		
TC39P	PLC/PAC System Integration	<a href="http://www.isa.org/training/TC39P">www.isa.org/training/TC39P</a>					16–20 (TX)						8–12 (TX)
TS06	Industrial Data Communication Systems	<a href="http://www.isa.org/training/TS06">www.isa.org/training/TS06</a>	17–21 (NC)			19–23 (CA <sup>1</sup> )			25–29 (NC)			3–7 (TX)	
TS14	IT Survival Basics for I&C Personnel	<a href="http://www.isa.org/training/TS14">www.isa.org/training/TS14</a>		17–21 (NC)				14–18 (CA <sup>1</sup> )			20–24 (PA)		8–12 (NC)
<b>Control Systems</b>													
EC05	Designing and Tuning Feedback and Advanced Regulatory Control Strategies	<a href="http://www.isa.org/training/EC05">www.isa.org/training/EC05</a>			3/31–4/2 (NC)			15–17 (DE)			1–3 (NC)		
EC60	Designing and Applying Model-Based Control Strategies	<a href="http://www.isa.org/training/EC60">www.isa.org/training/EC60</a>				28–30 (NC)				8–10 (NC)			
IC35	Distributor Processor Systems for Control	<a href="http://www.isa.org/training/IC35">www.isa.org/training/IC35</a> *											
IC40	Batch Control Using the ANSI/ISA88 Standards	<a href="http://www.isa.org/training/IC40">www.isa.org/training/IC40</a>		17–19 (NC)			11–13 (MA)			9–11 (PA)			
IC50	Implementing an Open Control System Network	<a href="http://www.isa.org/training/IC50">www.isa.org/training/IC50</a> *											
<b>Cybersecurity</b>													
IC32	Using the ANSI/ISA-62443 Standards to Secure Your Control System	<a href="http://www.isa.org/training/IC32">www.isa.org/training/IC32</a>	5–6 (NC)		1–2 (CA <sup>1</sup> )		3–4 (IL)		14–15 (NC)		1–2 (DE)		1–2 (TX)
TS12	Industrial Networking and Security	<a href="http://www.isa.org/training/TS12">www.isa.org/training/TS12</a>	24–28 (NC)				16–20 (NC)		18–22 (CA <sup>1</sup> )			17–21 (TX)	
TS13	Industrial Automation Cybersecurity: Principles and Application	<a href="http://www.isa.org/training/TS13">www.isa.org/training/TS13</a>		10–14 (NC)		19–23 (PA)		28–8/1 (NC)			13–17 (TX)		
<b>Energy</b>													
IC67	Transducer/Transmitter Installation for Nuclear Safety Applications Using ANSI/ISA-67.01.01	<a href="http://www.isa.org/training/IC67">www.isa.org/training/IC67</a>	10–11 (TX)					21–22 (PA)				10–11 (DE)	
IC68P	ANSI/ISA-67.04-2006: Setpoints For Nuclear Safety-Related Instrumentation	<a href="http://www.isa.org/training/IC68P">www.isa.org/training/IC68P</a>	12–14 (TX)					23–25 (PA)				12–14 (DE)	
<b>Measurement and Control</b>													
EI05	Industrial Pressure and Level Measurement Engineering	<a href="http://www.isa.org/training/EI05">www.isa.org/training/EI05</a>		17–18 (NC)		19–20 (IL)			11–12 (NC)				
EI10	Industrial Flow Measurement Engineering	<a href="http://www.isa.org/training/EI10">www.isa.org/training/EI10</a>		19–21 (NC)		21–23 (IL)			13–15 (NC)				
SP01P	Continuous and Emissions Monitoring Systems: A Process Analytical Sample Conditioning Technologies Overview	<a href="http://www.isa.org/training/SP01P">www.isa.org/training/SP01P</a> *											
<b>Plant Maintenance</b>													
EA10	System Checkout, Testing, and Startup	<a href="http://www.isa.org/training/EA10">www.isa.org/training/EA10</a> *											
EI30	Sizing, Selecting, and Applying Process Control Valves	<a href="http://www.isa.org/training/EI30">www.isa.org/training/EI30</a>	11–13 (IL)		7–9 (NC)						6–8 (NC)		
SP02P	Process and Laboratory Analytical Technologies Overview	<a href="http://www.isa.org/training/SP02P">www.isa.org/training/SP02P</a> *											
SP03P	Process Analyzer Sample Conditioning System Technology and Component Specification	<a href="http://www.isa.org/training/SP03P">www.isa.org/training/SP03P</a> *											
SP15	Applying Motor Controls and Drives	<a href="http://www.isa.org/training/SP15">www.isa.org/training/SP15</a>						22–24 (NC)				12–14 (NC)	
<b>Safety</b>													
EC50CT	Introduction to Safety Instrumented Systems for the Process Industry	<a href="http://www.isa.org/training/EC50CT">www.isa.org/training/EC50CT</a>		10 (DE); 17 (CO)		12 (CA <sup>1</sup> )	16 (TX)	14 (NC)		15 (IL); 22 (TX)	20 (CA <sup>2</sup> )	3 (CA <sup>1</sup> )	
EC50	Safety Instrumented Systems—Design, Analysis, and Justification	<a href="http://www.isa.org/training/EC50">www.isa.org/training/EC50</a>		11–14 (DE); 18–21 (CO)		13–16 (CA <sup>1</sup> )	17–20 (TX)	15–18 (NC)		16–19 (IL); 23–26 (TX)	21–24 (CA <sup>2</sup> )	4–7 (CA <sup>1</sup> )	
EC52	Advanced Safety Integrity Level (SIL) Selection	<a href="http://www.isa.org/training/EC52">www.isa.org/training/EC52</a>	18–19 (OH)	24–25 (CO)	1–2 (OH)		23–24 (OH); 23–24 (TX)		18–19 (NC)	29–30 (TX)	6–7 (IL); 27–28 (CA <sup>2</sup> )		1–2 (NC)
EC54	Advanced Design and SIL Verification	<a href="http://www.isa.org/training/EC54">www.isa.org/training/EC54</a>	20–21 (OH)	26–27 (CO)	3–4 (OH)		25–26 (OH); 25–26 (TX)		20–21 (NC)		8–9 (IL); 1–2 (TX); 29–30 (CA <sup>2</sup> )		3–4 (NC)
EC56P	Fire and Gas System Engineering—Performance Based Methods for Process Facilities	<a href="http://www.isa.org/training/EC56">www.isa.org/training/EC56</a>		11–13 (OH)			10–12 (OH)			16–18 (OH)			9–11 (OH)
ES10	Applying Instrumentation in Hazardous (Classified) Locations	<a href="http://www.isa.org/training/ES10">www.isa.org/training/ES10</a>			3–4 (NC)				11–12 (DE)			17–18 (NC)	
ES15	Boiler Control Systems Engineering	<a href="http://www.isa.org/training/ES15">www.isa.org/training/ES15</a>		3/31–4/2 (TX)			9–11 (NC)			22–24 (CA <sup>1</sup> )			
ES16	Burner Management Systems Engineering	<a href="http://www.isa.org/training/ES16">www.isa.org/training/ES16</a>		3–4 (TX)			12–13 (NC)			25–26 (CA <sup>1</sup> )			
<b>Certification and Licensure Review</b>													
EC00	Certified Automation Professional® (CAP®) Exam Review Course	<a href="http://www.isa.org/training/EC00">www.isa.org/training/EC00</a>	4–6 (CA <sup>1</sup> )				9–11 (TX)		11–13 (NC)			11–13 (IL)	
EN00	Control Systems Engineering PE Exam Review Course	<a href="http://www.isa.org/training/EN00">www.isa.org/training/EN00</a>			4/29–5/1 (NC)		3–5 (CA <sup>1</sup> )	15–17 (IL)	13–15 (PA)	9–11 (TX)			
TM00	Certified Maintenance and Reliability Technician (CMRT) Exam Review Course	<a href="http://www.isa.org/training/TM00">www.isa.org/training/TM00</a>			14–16 (NC)		17–19 (IL)			29–1/10 (NC)			9–11 (CA <sup>1</sup> )
TS00	Certified Control Systems Technician® (CCST®) Level I Exam Review Course	<a href="http://www.isa.org/training/TS00">www.isa.org/training/TS00</a>		4–7 (TX)		5–8 (CA <sup>1</sup> )		14–17 (TX)			20–23 (CA <sup>1</sup> )		1–4 (NC)
TS03	Certified Control System Technician® (CCST®) Level III Exam Review Course	<a href="http://www.isa.org/training/TS03">www.isa.org/training/TS03</a>		18–21 (CA <sup>1</sup> )			23–26 (TX)	28–31 (NC)		22–25 (TX)		17–20 (CA <sup>1</sup> )	
<b>Special Training Events</b>													
AEST	ISA Automation Engineering Survival Training	<a href="http://www.isa.org/Training/AEST">www.isa.org/Training/AEST</a>		10–14 (CO)			9–13 (TX)			15–19 (TX)	6–10 (CA <sup>2</sup> )		
AESTIV	ISA Automation Engineering Survival Training: Integrator Version <b>NEW!</b>	<a href="http://www.isa.org/Training/AESTIV">www.isa.org/Training/AESTIV</a>		3/31–4/4 (NC)		5–9 (IL)			4–8 (NC)				
TTBC	ISA Technician Training Boot Camp	<a href="http://www.isa.org/training/TTBC">www.isa.org/training/TTBC</a>		3–7 (CO)	7–11 (NC)		2–6 (TX)			22–26 (NC) 8–12 (TX)	13–17 (CA <sup>2</sup> )		
PABC	ISA Process Automation Boot Camp for Non-Maintenance Personnel <b>NEW!</b>	<a href="http://www.isa.org/Training/PABC">www.isa.org/Training/PABC</a>		3/31–4/4 (NC)					18–22 (NC)				
TATC	ISA Tactics for Advanced Troubleshooting Boot Camp <b>NEW!</b>	<a href="http://www.isa.org/Training/TATC">www.isa.org/Training/TATC</a>				12–16 (NC)					20–24 (NC)		

## US Training Locations Key

**NC** ISA Headquarters, Research Triangle Park, North Carolina  
**CA<sup>1</sup>** Burbank, California  
**CA<sup>2</sup>** Carson, California  
**CO** Denver, Colorado  
**DE** Newark, Delaware  
**IL** Columbia, Illinois  
**MA** Westwood, Massachusetts  
**OH** Columbus, Ohio  
**PA** King of Prussia, Pennsylvania  
**TX** Houston, Texas

ISA's extensive instructor-led curriculum is organized in three training paths designed to cover the body of knowledge required for technicians and automation professionals. Those training paths, outlined above, are the Fundamental Skills Path, the Automation Professional Skills Path, and the Technical Skills Path. Depending on your career and professional development needs, you may opt to take all the courses in a path or just a few from a select area.

\*These courses are not currently scheduled, but can be brought directly to your company through our onsite training option. Contact +1 919-549-8411 for more information.