

Training Plan for: Keith Arkenberg

Key for Sections:  Section Incomplete  
 Section Complete

Key for Subsections:  Subsection Incomplete  
 Subsection Complete

-The following blue check boxes are the requirements that must be met to be a signatory of the different echelons of testing.  
-After requirements are met to be a signatory the metrologist must sign and date the training plan.

Section	Training Goals	Subsection Complete
Safety Issues	Approved on: Approved By:	9/21/2012 Kevin Uphoff
	Personal Protection Equipment	X
	Lifting	X
	Forklift	X
	Crane/Hoist	X
	Metrology Chemicals MSDS	X
	Hand Tools	X
	Fabrication	X
	Volume Lift	X
	Truck	X
	Trailer	X
	Ladder	X
	Weight Cart	X
	Compressed Gases	X
Metrology Principles	Approved on: Approved By:	9/21/2012 Kevin Uphoff
	Integrity	X
	Device Handling	X
	Cleanliness	X
	Lighting	X
	Particulate Control	X
	Authorized Entry Control	X
	Air Currents & Drafts	X
	Document Control	X
	Lab Recognition Overview	X
	Services	X
	Arithmetic	X
	Arithmetic used for Analysis (F-test, t- test, E <sub>v</sub> , P <sub>d</sub> )	X
	Odd Values	X
	SOP Selection	X
Receiving Customer Orders	Approved on: Approved By:	9/21/2012 Kevin Uphoff
	In Person	X
	Via Truck line	X
	Via Contractor	X
	Via Delivery Service	X

Echelon	Metrologist's Signature & Date
Mass III & Volume II	
Mass II & Volume I	
Mass I	
↓ Additional Training ↓	

Requested Training					
Course	Number	Type	Format	CEUs	Preference
Webinar - Measurement Assurance Basics	1310	Laboratory / Metrology	Webinar		Next Class
Status: Not yet Registered					

**Note:** Any listed times are local times based on the location except for the location Adobe Connect which is Eastern Time.

Upcoming Classes							
Course	Class	Date	Time	Hours	Format	CEUs	Location

Completed Classes							
Course	Class	Date	Hours	CEUs	Instructor	Location	
SWAP		5360	9/28/2015	32		Val Miller, Georgia Harris, Jeremy Nading	Jefferson City, Missouri
Advanced Mass Seminar (Rev 2015)		5349	6/1/2015	72	9	Val Miller, Georgia L. Harris, Mark Ruefenacht	NIST, Bldg 101, Rm B11
Combined Regional Measurement Assurance Program		5157	10/19/2014	40	4.5	Georgia L. Harris, Val Miller, Elizabeth Gentry	St. Louis, MO
Mass Metrology Seminar		5297	9/8/2014	80	9	Val Miller, Jose Anibal Torres-Ferrer, Mark Ruefenacht	Gaithersburg, MD
Webinar - Software Verification and Validation		5318	6/3/2014	2	0.7	Georgia L. Harris	Adobe Connect Pro
SWAP		5220	9/23/2013	32	2.9	Val Miller, Mark Ruefenacht, Jose Anibal Torres-Ferrer	Phoenix, AZ
Webinar - NISTIR 7383 SOP 19 (18) Part 2		5243	6/20/2013	2	0.2	Val Miller	Adobe Connect
Webinar - Uncertainty Budgets for SOP 19		5259	6/20/2013	2	0.2	Georgia L. Harris	Adobe Connect
Webinar - Uncertainty Budgets for SOP 5		5258	6/19/2013	2	0.2	Georgia L. Harris	Adobe Connect
Webinar - NISTIR 7383 SOP 19 (18) Part 1		5242	6/19/2013	2	0.2	Val Miller	Adobe Connect
Webinar - NISTIR 6969 SOP 8 Part 2		5241	6/18/2013	2	0.3	Val Miller	Adobe Connect
Webinar - Uncertainty Budgets for SOP 4		5257	6/17/2013	2	0.3	Georgia L. Harris	Adobe Connect
Webinar - NISTIR 6969 SOP 8 Part 1		5239	6/17/2013	2	0.3	Val Miller	Adobe Connect
Webinar - Proficiency Testing Follow Up Actions and Root Cause Analysis		5238	6/6/2013	2	0.3	Val Miller	Adobe Connect
Fundamentals of Metrology		5208	4/15/2013	40		Jose Anibal Torres-Ferrer, Val Miller	Gaithersburg, MD

<b>In House Processes</b>	Approved on:	9/21/2012
	Approved By:	Kevin Uphoff
	KMLQAM	X
	KMLSAP	X
	Order Cards System	X
	Scheduling	X
	Customer Service	X
	Information Record System	X
	Legal Issues	X
	Seals	X
	Adjustment Material	X
	S/N Control	X
	Rejection Criteria	X
	Program Development	X
	Software Testing	X
	Data Sets	X
	Report Reviews	X
	Round Robin	X
	Welding-Arc	X
	Welding-Gas	X
	Cutting Torch Operation	X
Melting Lead	X	
Rolling Machine Operation	X	
Punch Press Operation	X	
Forklift Operation	X	
NIST Yearly Submission	X	
<b>Mass III</b>	Approved on:	5/15/2013
	Approved By:	NIST OWM
	NIST Fundamentals Seminar	X
	Fundamental LAP Problems	X
	Successful Completion of PT	X
	Mass Literary Background	X
	Calibration of Mass Field Standards	X
	Balances, Mass Comparators	X
	Mass Corrections	X
	Uncertainty Analysis	X
	Balance Leveling Methods	X
	Sealing Methods	X
	Control Chart Maintenance and Data Entry	X
	NIST HB 105-1 F Weights	X
	NIST HB 105-8 Weight Carts	X
	Testing Weight Carts	X
	Testing Greater than 1 250 lb	X
	Testing 100 lb to 1 250 lb	X
	Testing 20 lb to 50 lb	X
	Testing 0.001 lb to 10 lb	X
	Testing Customary with tare weights / odd nominals	X
Testing Greater than 600 kg	X	
Testing 50 kg to 600 kg	X	
Testing 10 kg to 30 kg	X	
Testing 1 mg to 5 kg	X	
Testing Metric with tare weights / odd nominals	X	

<b>Volume II</b>	Approved on:	5/15/2013
	Approved By:	NIST OWM
	NIST Fundamentals Seminar	X
	Fundamental LAP Problems	X
	Calibration of Volume Field Standards	X
	Successful Completion of PT	X
	Volume Literary Background	X
	Control Chart Maintenance and Data Entry	X
	Uncertainty Analysis	X
	Thermometers	X
	Drain Times	X
	Repeatability	X
	Volume Leveling Methods	X
	Rejection Criteria	X
	Meniscus Reading	X
	Valve Types	X
	Testing 5 gallon Hand Held	X
	Testing 5 gallon Bottom Drop	X
	Testing 50 gallon	X
	Testing 100 gallon	X
	Testing 100+ gallon	X
Testing 1000 gallon	X	
Trailer Operations	X	
Volume Lift Operation	X	
Sight Tube Replacement	X	
Volume Scale Adjustments	X	
Volume Scale Fabrication Specifications	X	
Plumbing Requirements	X	
NIST HB 105-3 Volume	X	
Testing 25 gal to 100 gal LPG	X	
NIST HB 105-4 LPG	X	
<b>Mass II</b>	Approved on:	10/08/2014
	Approved By:	NIST OWM
	NIST Mass Seminar	X
	Mass Problems	X
	Successful Completion of PT	X
	Calibration of Working Standards	X
	Literary Background	X
	Balances, Mass comparators	X
	Mass Corrections	X
	Uncertainty Analysis	X
	Control Chart Maintenance and Data Entry	X
	Air Buoyancy	X
	Control Charts	X
	Density	X
	Standard Air Density	X
Barometer Operation	X	
RH Operation	X	
<b>Volume I</b>	Approved on:	
	Approved By:	
	NIST Volume Seminar	
	Volume Problems	
	Successful Completion of PT	X
	Calibration of Working Standards	
	Literary Background	X
	Balances, Mass comparators	X
	Uncertainty Analysis	X
	Control Chart Maintenance and Data Entry	X
	Density	X
100 gal	Not on Scope	
50 gal	Not on Scope	
5 gal	X	
Less than 5 gal or 20 L	Not on Scope	

<b>Mass I</b>	Approved on:	01/01/2016
	Approved By:	NIST OWM
	NIST Advanced Mass	X
	Advanced problems	X
	Successful Completion of PT	X
	Literary Background	X
	Calibration of Secondary Standards-Metric	X
	Calibration of Secondary Standards-Avoirdupois	X
	Mass Corrections	X
	Uncertainty Analysis	X
	Past Performance - Balance	X
Series Control	X	
Control Chart Maintenance and Data Entry	X	