

January 1, 2015

Scheduled and Requested Metrology Training and Laboratory Auditing Program Problems

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NIST Office of Weights and Measures Laboratory Metrology Program offers a systematic program of metrology training seminars important to your Metrology Laboratory operations. As laboratory manager or as a metrologist, you should be aware of the changes that have been made in the courses offered and the requirements that accompany the changes.

Did you know that there are no more Basic and Intermediate Metrology Seminars? That's right. These courses have not been taught since 2011 and 2012 respectively! So, if your performance plans and job announcements indicate that successful completion of these seminars is a requirement, they need to be updated.

Does this mean individuals that completed Basic and Intermediate Seminars (and the associated Laboratory Auditing Program [LAP] problems for states) need to attend refresher training and complete the new seminars? In general, the answer is no. However, if someone attended the older seminars and has not been working in the laboratory for the last three years, refresher training is essential for several reasons – least of which is the need for demonstrating hands-on proficiency. In addition, there have been many procedure changes and updates that have occurred in the past few years, and people that have not been a part of the laboratory program will need updated training on the new procedures to be successful. In fact, if an individual attended training but has not been working in the laboratory, and has not completed the appropriate LAP problems, refresher training is required. The NIST Handbook 143, Program Handbook Table 2 (as published in 2007) and the updated version of Table 2 will be combined to reflect the acceptance of prior training and completion of LAP problems as well as the new series of courses (available on the OWM website: <http://www.nist.gov/pml/wmd/labmetrology/lab-resources.cfm>).

The core metrology seminars now include: Fundamentals of Metrology (1 week) with a pre-requisite that includes successfully passing a mathematics pre-test; Mass Metrology (2 weeks); and the Volume Metrology (1 week).

There are now only two sets of LAP problems – the Fundamentals of Metrology and the Advanced Mass. The new Fundamentals of Metrology LAP problems rely on students completing proficiency tests in both mass and volume, plus a series of technical audits that reinforce training, support internal technical audits, and provide additional support and evidence for measurement traceability. The LAP problems are required prior to metrologists being recognized as Approved Signatories at designated levels, which includes the authority and responsibility for approving the technical content of calibration certificates. OWM is adding a time limit requirement on the Fundamentals of Metrology LAP problems; the

problems are required to be completed within one year of completion of the training. For those who have not yet completed the Basic and Intermediate LAP problems, they have until December 31, 2015, to turn them in, at which time they will no longer be accepted.

For those laboratories wishing to expand their Scope to include mass calibrations via dissemination techniques and Mass Echelon I Recognition (OIML Class E₁ and E₂ for example), the Advanced Mass Metrology Seminar (9 days) is required. The Advanced Mass Metrology seminar is the last of the core courses to undergo a complete redesign based on our OWM International Association for Continuing Education and Training (IACET) accredited processes and system. It now incorporates the Advanced Hands-on seminar, which has been eliminated. An updated description of the new course is available on our website and the first redesigned Advanced Mass Seminar is scheduled for June 1 to 11, 2015, and is already FULL. This course was first taught in 1993 and has only been offered in alternating years; however, it has not been offered since 2011 to allow for the redesign of the course. People who attended earlier versions of the Advanced Mass Metrology seminar and have not yet completed the Advanced LAP problems also have only until December 31, 2015, to submit problems. For those attending the new Advanced Mass Metrology Seminar, there will be a two-year time limit for completing the Advanced Mass LAP problems.

Seminars are scheduled several months or years in advance and posted on the OWM Training Calendar and the Laboratory Metrology Training Schedule. But, you don't have to wait for OWM to schedule a training event. In fact, by logging into the OWM Contacts System, anyone can request additional courses that are not currently scheduled. In this way, OWM staff will have a better idea of what the current metrology training needs are and can regularly add courses throughout the year.

In addition to the core metrology seminars, OWM also has a number of webinars scheduled throughout the year with many additional webinars that can be scheduled based on need (see the accompanying list). The majority of the webinars are based on laboratory quality management systems and some are designated for "State Laboratories only."

The schedule and course lists have been sent to State Directors and laboratory staff along with their annual recognition feedback letters and certificates. But, you can still take a look at the list of courses and log-in to request your next seminar or webinar! If you think another course subject would be value-added, please send an e-mail in with your suggestions!

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Link to OWM Contacts System: <https://tsapps.nist.gov/WMD/default.aspx>

Instructions on How to Request Training & Transcripts Using the Contacts System:

<http://www.nist.gov/pml/wmd/upload/InstructionsHowToRequestTrainingTranscripts.pdf>