

by Georgia Harris

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DACUM (Developing a Curriculum) study begun in the 1990's at Aurora Community College, CO.

- Recommended Practice, RP 17, Documenting Metrology Education, Training, and On-the-Job Training, published by the 163 committee in 2007 (see the Committee News article in this issue by Committee chair Gloria Neely).
- Scholarships to schools with metrology programs and partial sponsorship of the Joe D. Simmons Memorial Scholarship (with Measurement Science Conference and ASQ-MQD).
- Addition of Outreach subcommittee to target teachers and students to get them interested in and excited about metrology careers.
- Accreditation Body, Assessor Survey to get initial insight on "training needs" in accredited laboratories.
- Past conference sessions on Job Descriptions, Personnel Certification, and Documenting Training.
- At the 2008 conference you will see sessions on: Training and Succession Plans, Professional Development, Student and Educator Perspectives, Workplace Development, Mentoring - International and E&T, Learning and Development Financial Resources.

It is easy to see that the efforts described above are much more than "education and training." As a group of committees seeking to meet many workforce challenges, we want to deal with the whole scope of issues related to human capital.

You can see that these efforts go well beyond working with educators, providing scholarships, and making training resources available through a directory and member library. All of the committees in Learning and Development now have updated charters based on the name changes and based on the strategic roadmap effort that we established back in 2005. We changed the charters to highlight proposed outcomes of our efforts and our long-term objectives, as opposed to specific tasks and projects – to allow the committees an opportunity to consider new products and services that may not have been considered in the past.

Highlighted activities from the 2008 Strategic Plan are noted in the following section with each committee. We don't often communicate our strategic goals widely enough; with the major changes to these committees, we wanted to give you an idea of what we're up to and an opportunity to participate! Each year we will consider what activities will best help us meet workforce challenges. So, if you have ideas that you think will build on those stated here, please feel free to contact any of the committee chairs.

### 161: Training Resources

**Chair: Helga Alexander (halexander@keithley.com)**

**Co-Chair: Matthew Denslow**

**(matthew.denslow@afmetcal.af.mil)**

**Charter:** Ensure that information, resources, and opportunities for metrology learning are of high quality and are widely and readily available, and that needs and solution providers are identified where gaps exist. Ensure a high level of awareness of learning resources throughout the metrology community. Ensure development, implementation, and recognition of real-time (fast-response) metrology learning opportunities. Ensure development of a complete infrastructure to support metrology

courses which result in accredited continuing education units (CEUs), and/or college credit, and/or ongoing instructor development and qualification.

### 2008 Activities

- Develop a new Regional Training program in conjunction with region/section coordinators that will provide options for education and training opportunities in half-day to multi-day segments.
- Obtain IACET (International Association for Continuing Education and Training) assessment to become an Authorized Provider for Continuing Education Units.
- Perform major revisions/updates of current resources in the NCSLI Training Library, Training Directory, and website in support of member training opportunities.
- Conduct (contract) a formal needs assessment study of education and training requirements (pending resources).

### 162: Financial Resources

**Chair: Mark Lapinskes (mark.lapinskes@sypris.com)**

**Charter:** Ensure that adequate resources are available to support metrology education, training, and metrology outreach through solicitation and oversight of grants and charitable contributions in the NCSLI Education Development Fund (EDF), the management of scholarships, and the oversight of awarded grants and contracts that are associated with strategically selected metrology education, training, and outreach projects.

### 2008 Activities

- Manage NCSLI Scholarship Resources, investigate new/international scholarship opportunities, and administer the NCSLI Education and Training award.
- Pursue new opportunities to obtain resources for education and training activities including Combined Federal Campaign, United Way, planned giving, and open solicitation from members and others.
- Implement and promote opportunities to support the NCSLI EDF. You may have seen the press release announcing this new program in May 2007 or the end-of-year request that highlighted a number of projects that we can only do if we obtain funds outside of the usual NCSLI budgeting process. You can contribute online by going directly to the Educational Development Fund in the NCSLI Store.
- Develop and implement the financial infrastructure needed to manage solicitations, income, grants, and contracts through the EDF, and institute an ongoing process to identify and select projects that have the greatest opportunity for impact. Write and disseminate requests for project proposals and information. Evaluate project proposals.

Primary projects requiring funding include:

- Multimedia DVD and Website Products - for use in outreach to teachers, students, and career counselors (a request for proposals is being developed);
- Needs Assessment Study - to determine current courses that are available, to identify what courses are needed, and present a gap analysis to allow the metrology community to focus training efforts;

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- Sponsor 5000 copies of the American Society for Engineering Education - "Engineering - Go For It!" handout that can be used as an outreach tool to generate interest in metrology and engineering;
- Virtual Physical Laboratory - an interactive software tool for outreach to teachers and students and for use in secondary and university classrooms;
- Educational Measurement Kits - hands on demonstration tools for Outreach Ambassadors to use in classrooms; and
- Enhanced scholarship resources.

### 163: Workplace and Professional Development

**Chair: Gloria Neely (gloria.neely@navy.mil)**

Ensure that appropriate methods or systems are available in the workplace to provide appropriate recognition, qualification, credibility, and remuneration for the metrology professions. Ensure ongoing professional development in metrology and calibration careers by providing guidance, resources, and best practices to metrology and standards organizations, human resources offices, unions, and professional staff. Ensure that clear career paths are identified, communicated, and tracked as widely as possible and ensure that metrology and calibration careers are adequately recognized in the world-wide marketplace.

#### 2008 Activities

- Create a new Recommended Practice on "How to Develop Training and Succession Plans" to support Workplace Development. A session on this topic will be held at the 2008 NCSLI conference.
- Develop a new standard "HR Package" that incorporates resources from the 2006-2007 Job Description Initiative and the 2007 NCSLI Benchmarking Study. This package will be available to disseminate to human resource offices in support of metrology/calibration positions. We will also continue our efforts with the U.S. Department of Labor and the U.S. Office of Personnel Management to integrate metrology/calibration job descriptions and labor statistics into publications and processes.

### 164: Education Liaison and Outreach

**Chair: Chris Grachanen (chris.grachanen@hp.com)**

**Co-Chair: Phil Smith (psmith@a2la.org)**

Provide multiple forums for educators to interact on topics related to metrology learning and development, to encourage sharing of ideas and resources, and to help ensure that metrology stakeholder educational needs are met. Ensure awareness of metrology, measurement sciences, and needs for calibration and standards in such a way that it is readily recognized by educators, students, related professional organizations, and the general public. Develop and support initiatives and programs enabling world-wide Metrology Learning and Development.

#### 2008 Activities

- Develop and provide resources, training, and encouragement to facilitate:
  - 1) educator and student involvement in NCSLI Sections, and
  - 2) section/member outreach to schools (K-12) and universities as Metrology Ambassadors (see article in January 2008 *metrologist*).

- Distribute NCSLI resources to students and teachers through section events, science fairs, teacher institutes, and other conferences.
- Identify and pursue strategic collaborations with related professional organizations to foster metrology outreach and STEM outreach efforts as champions step forward. Expand internationally as opportunities are identified.  
**For example:** NMI outreach (such as NIST, NRC, CENAM, SIM, EUROMET), American Society for Quality - Measurement Quality Division, Measurement Science Conference, Instrument Society of American, Institute for Electronic and Electrical Engineering, American Society for Engineering Education, American Society for Training and Development, National Science Teachers Association, American Association of Physics Teachers, Science Technology Engineering Program (STEP) with the U.S. Navy, International Conference on Education for Standardization, etc..
- See additional items listed under the 162 committee that are pending resources!

### 164.1: Marketing Liaison

**Chair: Dilip Shah (emc3solu@aol.com)**

Work with the Learning and Development Committees and the Marketing team to promote Learning and Development products and services and to incorporate education and training, professional development, and workforce development topics into general NCSLI literature and resources whenever applicable.

#### 2008 Activities

- Work with the Marketing team to promote Education and Training efforts and products.
- Will include all Outreach efforts, Regional Training, training Library and Directory through a publication and training catalog; promote use of NCSLI Training Center, EDF Solicitations, and Press Releases (inside and outside normal channels).

### 164.2: Communications

**Chair: Chris Grachanen (chris.grachanen@hp.com)**

Work to increase world-wide awareness of metrology through ongoing and widespread communications efforts using multiple media. This primarily relates to metrology education and training, professional development, and workforce development topics.

#### 2008 Activities

- Work to communicate with outside organizations to increase world-wide awareness of metrology.
- Help our members with information and resources to assist personal and section outreach efforts.
- Help communicate EDF to raise money for metrology Education and Training projects.
- Develop articles in publications such as *measure journal*, *metrologist*, *Cal Lab*, *Prism* (ASCE), *Standardization News* (ASTM), *The Standard* (ASQ-MQD), press releases, flyers, international publications, and Website pieces. ■

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