Ensuring Quality of Cyber Security Education

ANSI
American National Standards Institute

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Who are we?

Mission

To enhance the global competitiveness of U.S. business and the American quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems and ensuring their integrity.

ANSI is not a government agency or a standards developer.

The ANSI Federation represents more than **125,000 companies and organizations** and **3.5 million professionals** worldwide

Members of the ANSI Federation include . . .

- Academia
- Individuals
- Government
- Manufacturing
- Trade Associations

- Professional Societies
- Service Organizations
- Standards Developers
- Consumer and Labor Interests
- and many more

ANSI Accreditation Portfolio

Standards	Conformity Assessment (ISO/IEC 17011)					

ANSI Accredited Standards Developer

ANSI Accredited Program PRODUCT CERTIFICATION | ANSI-ASQ National Accreditation Board (ANAB) | ANSI Accredited Program PERSONNEL CERTIFICATION | ANSI ACCREDITED PROGRAM CERTIFICATE ISSUER | ACLASS | ANSI ACCREDITED PROGRAM GREENHOUSE GAS VERIFICATION

ANSI Procedures *"Essential Requirements"*	ISO/IEC 17065	ISO/IEC 17021	ISO/IEC 17024	ASTM E2659	ISO/IEC 17025 & 17020	ISO/IEC 14065
SDOs *(also ISO TAGs)*	**Product Certifiers**	**Management System Certifiers**	**Personnel Certifiers**	**Personnel Certificates**	**Labs & Inspection Bodies**	**Greenhouse Gas Verifiers**

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ANSI's Accreditation Process
Based on an International Standard

- Meets the requirements of ISO/IEC 17011, *General requirements for accreditation bodies accrediting conformity assessment bodies*
  - ANSI's compliance to standard is mandatory for international recognition
  - The only personnel certification accreditation body to meet 17011 in the United States
- Involves a comprehensive paper review and an on-site visit (audit)
  - Full time staff to administer the program
  - Trained assessors approved by ANSI are engaged for the on-site visits
- An Accreditation Committee comprised of national experts (volunteers) with responsibility for:
  - Oversight, policy and procedure development
  - Determining the accreditation decision based on assessors' recommendations

Personnel Certification Accreditation

Public Protection Issue

Health

Safety

National Security

September 2013

ANSI/ISO/IEC 17024 – Sets the Bar for Quality

- ANSI/ISO/IEC 17024 sets the bar for quality in Personnel Certification Programs by

  - Ensuring the fairness, validity, and reliability of the examination

  - Ensure the quality of a certification program

  - Ensuring individuals pass who SHOULD pass and failing individuals who SHOULD fail

  - Ensuring a process that facilitates continued competence

  - Ensuring that due process procedures are in place to "take away" the certification for unethical or incompetent behavior

  - Ensuring a continuous quality improvement approach

IAF
International Accreditation Forum

- Membership - Accrediting bodies around the World
  - Quality Management Systems and Environmental Management Systems
  - Product Certification Bodies
  - Personnel Certification Bodies
- Create Guidance to ISO Documents
  - IAF Guidance to ISO/IEC 17024
- Peer Review
  - MLAs
  - Bi-lateral Agreements
- IAF TC Working Group for 17024
  - Working on Harmonization and MLA

The ANSI Certificate Accreditation Program (ANSI-CAP)

ANSI/ASTM E-2659 – Standard Practice for Certificate Programs

An American National Standard

September 2013

Why??

- To distinguish between a certificate and a certification program
- Certification programs applying for accreditation were really "certificate" programs
- Frequency of use by the workforce is much higher
- Office of Personnel Management encouragement
- Most certificates based on "seat time"
- Few assess learning outcomes, if they do evaluate, the assessment is not aligned with learning outcomes
- Employers are concerned – "workers do not have the knowledge and skills as advertised" – cannot identify and hire qualified individuals
- "Skills gap" between education and practice
  - No integration of training/education
- No oversight of certificate programs
  - "gap" in higher education accreditation

Why are Certificate Programs the "center" of attention

- Certificates have skyrocketed more than 800% over the past

- 24% of all 23 to 65 year old workers responded that they had attended a vocational, trade or business program beyond high school

- 75% of those who had attended these schools reported having earned a certificate

- 18% of prime-age workers have obtained certificates

- 12% percent have certificates as their highest educational attainment

Certificate Accreditation Program (ANSI-CAP) ANSI/ASTM E-2659 What's in the Standard?

- Requirements for Certificate Issuers
  - Organizational structure and Administration
- Requirements for the Certificate program
  - Program Plan
  - Analysis, Design, Development, Implementation and Evaluation
- Requirements for Certificate Issuance and Use
  - Use of designations
  - Certificate's term of validity

Accredited Certificate Issuers

- U.S. Army Combat Readiness/Safety Center
- U.S. Food and Drug Administration
- U.S. Federal Bureau of Investigation (FBI)
- FBI Academy
- AboveTraining/StateFoodSafety.com
- AQS Management Systems, Inc.
- Blue C, LLC
- Center for Energy Workforce Development
- CrossFit Inc.
- DRI International
- eFoodhandlers Inc
- International Food Protection Training Institute
- KEYW Corporation
- MindLeaders, Inc.
- National Apartment Association Education Institute
- National Environmental Health Association
- National Registry of Food Safety Professionals®
- National Restaurant Association
- NSF International Training and Education
- Premier Food Safety
- Safeway Certifications, LLC
- SCIPP International
- TAP Series
- The International Consortium for Organizational Resilience (ICOR)

Point of Contact:

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