NATIONAL COMMISSION ON FORENSIC SCIENCE

Views of the Commission
Certification of Forensic Science Practitioners

Subcommittee		Date of Current Version	08/12/2016
Accreditation and Proficiency Testing		**Approved by Subcommittee**	08/15/2016
		Approved by Commission	09/12/2016

Commission Action

The Commission voted to adopt this Views Document on September 12, 2016, by a more than two-thirds majority vote (94% yes, 3% no, 3% abstain).

Note: This document reflects the views of the National Commission on Forensic Science and does not necessarily represent the views of the Department of Justice or the National Institute of Standards and Technology. The portion of the document directly labeled "Views of The Commission" represents the formal Views of the Commission. Information beyond that section is provided for context. Views documents do not request specific action by the Attorney General, and thus do not require further action by the Department of Justice upon their approval by the Commission. The National Commission on Forensic Science is a Federal Advisory Committee established by the Department of Justice. For more information, please visit: https://www.justice.gov/ncfs.

Overview

The implementation of robust and standardized certification programs using accredited certification bodies complements the accreditation of forensic science providers for the overall improvement of forensic science. Certification should be appropriate to the responsibility, activity, or function performed. This document provides recommendations for the certification of forensic science practitioners.[1]

Views of the Commission

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[1] An individual who (1) applies scientific or technical practices to the recognition, collection, analysis, or interpretation of evidence for criminal and civil law or regulatory issues, and (2) issues test results, provides reports, or provides interpretations, conclusions, or opinions through testimony with respect to such evidence. Definition adopted by NCFS Commissioners on May 1, 2015.

It is the view of the Commission that Forensic Science Service Providers (FSSPs)[2] should:

- Review available certification programs, giving preference to certification bodies accredited to ISO/IEC 17024 or to those in the process of obtaining accreditation, and apply certification requirements to job descriptions for specific positions including, but not limited to, managers, analysts, and technical support. For those positions in which certification programs do not exist, review of a state or local agency certification program should be considered.
- Develop a process that ensures all practitioners apply for certification, if a program is available, and provide time and resources to achieve and maintain certification.
- Include certification requirements in position descriptions, where possible.
- Provide support to practitioners, if there is not a certification program available in a specific category of testing, to maintain knowledge and skills.

It is the view of the Commission that all forensic science practitioners should:

- Become certified in all categories of testing in which examinations are performed as soon as the requirements of the certification body are met, provided a certification examination is available.
- Obtain certification within 5 years from implementation of this document. Personnel entering the field after implementation shall obtain certification within 1 year of eligibility or within the required time limit of the certifying body.

Background

Professional certification is the recognition by an independent certification body that an individual has acquired and demonstrated specialized knowledge, skills, and abilities in the standard practices necessary to execute the duties of his or her profession. Certification also provides the general public and the judicial system with a means of identifying those practitioners who have successfully demonstrated compliance with established requirements. In addition, certification provides that professionals maintain technical proficiency and ethical standards of practice. Professional certification programs can include: written and/or practical testing; an evaluation of education, training, and practical experience; requirements for continuing education; and adherence to a code of ethics.

Recommendation 7 of the 2009 National Research Council of the National Academies report *Strengthening Forensic Science in the United States: A Path Forward* stated:

> "Laboratory accreditation and individual certification of forensic science professionals should be mandatory, and all forensic science professionals should have access to a certification process ... No person (public or private) should be allowed to practice in a forensic science discipline or testify as a forensic science professional without certification." [3]

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[2] A forensic science agency or forensic science practitioner providing forensic science services. Definition adopted by NCFS Commissioners on May 1, 2015.

[3] *Strengthening Forensic Science in the United States: A Path Forward* (2009).Washington, DC: The National Academies Press. pg. 25 and pg. 125.

Professional certification bodies in forensic science have been in practice for more than 30 years.[4] However, they do not exist for all forensic science categories of testing. In 2010, the Accreditation, Certification, and Proficiency Testing Inter-Agency Working Group (ACPTIWG) of the National Science and Technology Council's Subcommittee on Forensic Science collected information on existing certification programs from representatives of several organizations[5]; this list was updated in 2016. There are vast differences in the certification examination processes and essential elements for forensic science disciplines, which leads to fragmentation of the various certification programs accredited by the same entity (Appendix B). These differences may be appropriate, depending on the category of testing. There are specialties and subspecialty categories of testing that do not have certification bodies due to the very small number of practitioners (Appendix C). It is recognized in the certification community that it is difficult to create a certification program with less than 50 practitioners.[6] The Commission acknowledges that there will be challenges for agencies requiring certification (Appendix D).

The types of confirmation of qualifications used in other professions[7] such as licensure, credentialing, certificate programs, and registration are not used in the forensic sciences primarily due to their limited scope or specific nature (Appendix E).

Requiring FSSPs to mandate the certification of their forensic science practitioners would improve the quality of services provided and enhance confidence in the judicial system. Certification demonstrates that the individual has met established criteria and proficiency in the standard practices necessary to execute the duties of his or her profession. Certification also provides the public and the judicial system with a means of identifying those practitioners who have successfully demonstrated proficiency in the domain relevant to their area of practice. Finally, certification provides another means of external oversight for practitioners.

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[4] See Appendix A: Forensic Certification Bodies.
[5] https://www.whitehouse.gov/sites/default/files/microsites/ostp/NSTC/strengthening_the_forensic_sciences_may_-_2014.pdf
[6] Swift, Roy A. "Increasing the Credibility and Quality of Certification through Accreditation." Presentation to the ACPTIWG. ix A: Variations Between Certification Organizations, May 5, 2011.
[7] Corrigan, Melissa Murer. "Licensure and Credentialing in Non-Forensic Fields." Presentation to the ACPTIWG, May 5, 2011.

Appendix A: Forensic Certification Bodies

ILAC G19 Categories of Testing	Discipline/ Subdiscipline	Certification Organization	Contact Info	Accrediting Organization	Approximate No. of Diplomats or Certified Individuals	Application Fee	Examination Fee	Annual Recertification Fee or Dues
Controlled Substances	Drug Analysis	American Board of Criminalistics	www.criminalistics.com	FSAB	232	$50	$250	$50
Comprehensive Criminalistics Examination (General Criminalistics)	Criminalistics Subjects	American Board of Criminalistics	www.criminalistics.com	FSAB	111 (718)	$50	$250	$50
Hairs, Blood, Body Fluids and Tissues	Molecular Biology	American Board of Criminalistics	www.criminalistics.com	FSAB	364	$50	$250	$50
Trace Evidence	Fire Debris	American Board of Criminalistics	www.criminalistics.com	FSAB	47	$50	$250	$50
Trace Evidence	Hairs and Fibers	American Board of Criminalistics	www.criminalistics.com	FSAB	27	$50	$250	$50
Trace Evidence	Paint and Polymers	American Board of Criminalistics	www.criminalistics.com	FSAB	22	$50	$250	$50
Entomology	Forensic Entomology	American Board of Forensic Entomology	www.forensicentomologist.org		16	$50	$50	$50
Handwriting and Document Examination	Forensic Document Examination	American Board of Forensic Document Examiners	www.abfde.org	FSAB	106	$250	N/A	$250 Annual Dues
Handwriting and Document Examination	Forensic Document Examination	Board of Forensic Document Examination	www.bfde.org	FSAB	14	$100	$500	$50
Fingerprints	Latent Fingerprints	International Association for Identification	www.theiai.org	FSAB	1041	$200/IAI Members; $300/Non-Members	N/A	Recert every 5 yrs: $200/IAI Members; $300/Non-Members

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Fingerprints	Ten-Print Fingerprints	International Association for Identification	www.theiai.org	FSAB	117	$200/IAI Members; $300/Non-Members	N/A	Recert every 5 yrs: $200/IAI Members; $300/Non-Members
Scene Investigation	Blood Stain Pattern	International Association for Identification	www.theiai.org	FSAB	39	$200/IAI Members; $300/Non-Members	N/A	Recert every 5 yrs: $200/IAI Members; $300/Non-Members
Scene Investigation	Crime Scene-Four Levels	International Association for Identification	www.theiai.org	FSAB	1,625: Outside FSSPs	$200/IAI Members; $300/Non-Members	N/A	Recert every 5 yrs: $200/IAI Members; $300/Non-Members
Scene Investigation	Forensic Artist	International Association for Identification	www.theiai.org	FSAB	34	$200/IAI Members; $300/Non-Members	N/A	Recert every 5 yrs: $200/IAI Members; $300/Non-Members
Scene Investigation	Forensic Photography	International Association for Identification	www.theiai.org	FSAB	57	$200/IAI Members; $300/Non-Members	N/A	Recert every 5 yrs: $200/IAI Members; $300/Non-Members
Marks and Impressions	Footwear	International Association of Identification	www.theiai.org	FSAB	105	$200/IAI Members; $300/Non-Members	$300	$200/IAI Members; $300/Non-Members

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Audio, Video and Computer Analysis	Digital Evidence/ Video—Forensic Video Certification	International Association of Identification	www.theiai.org		23	$200/IAI Members; $300/Non-Members	$300	$200/IAI Members; $300/Non-Members
Marks and Impressions	Footwear/ Fingerprints	Canadian Identification Society	www.cis-sci.ca		N/A for U.S.A.	$150	N/A	$150
Audio, Video and Computer Analysis	Digital Evidence / Video—Certified Forensic Video Analyst	Law Enforcement and Emergency Services Video Association	www.leva.org		54	N/A	N/A	$55/year
Audio, Video and Computer Analysis	Digital Evidence/ Video—Certified Forensic Video Technician	Law Enforcement and Emergency Services Video Association	www.leva.org		267	N/A	N/A	$55/year
	Evidence Handling	International Association for Property and Evidence	www.IAPE.org		1,400+; Outside FSSP	$150	N/A	$100
Firearms and ballistics	Firearms	Association of Firearm and Tool Mark Examiners	www.afte.org		116	N/A	$250	$25 every 5 years
Marks and Impressions	Tool Marks	Association of Firearm and Tool Mark Examiners	www.afte.org		46	N/A	$250	$25
Firearm Distance Determination	Gunshot Residue	Association of Firearm and Tool Mark Examiners	www.afte.org		39	N/A	$250	$25

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Audio, Video and Computer Analysis	Digital Evidence/ Computer Forensics— Digital Forensics Certified Practitioner and DFCA	Digital Forensics Certification Board	www.dfcb.org		178	$250	$100	N/A
Audio, Video and Computer Analysis	Digital Evidence/ Computer Forensics—Certified Computer Examiner	International Society of Forensic Computer Examiners	www.isfce.org		805	$395	N/A	$75
Audio, Video and Computer Analysis	Digital Evidence/ Computer Forensics— Certified Digital Forensic Examiner, Certified Digital Media Collector, Certified Computer Crime Investigator	DOD Cyber Crime Center	www.dc3.mil		Training source	N/A	N/A	N/A
Audio, Video and Computer Analysis	Digital Evidence/ Computer Forensics— Certified Forensic Computer Examiner	International Association of Computer Investigative Specialists	www.iacis.com	FSAB	1,963	N/A	w/ training ($2,795) wo/ training ($750)	$50
Audio, Video and Computer Analysis	Digital Evidence/ Computer Forensics— Certified Advanced Windows Forensic Examiner	International Association of Computer Investigative Specialists	www.iacis.com		26	N/A	w/ training ($1,495) wo/ training ($750)	$50

ILAC G19 Categories of Testing	Discipline/ Subdiscipline	Certification Organization	Contact Info	Accrediting Organization	Approximate No. of Diplomats or Certified Individuals	Application Fee	Examination Fee	Annual Recertification Fee or Dues
Audio, Video and Computer Analysis	Digital Evidence/ Mobile Devices— Certified Mobile Device Examiner	International Association of Computer Investigative Specialists	www.iacis.com			N/A	w/ training ($1,495) wo/ training ($750)	$50
Audio, Video and Computer Analysis	Digital Evidence/ Mobile Devices— Advanced Smartphone Forensics	Global Information Assurance Certification	www.giac.org	ANSI	GOAC number certified is not available, but 80,079 certifications granted	N/A	w/training ($1,149) wo/training ($659)	$399
Audio, Video and Computer Analysis	Digital Evidence/ Computer Forensics— Certified Forensic Analyst, Certified Forensic Examiner, Reverse Engineering Malware, many others	Global Information Assurance Certification	www.giac.org	ANSI	GOAC number certified is not available, but 80,079 certifications granted	N/A	w/training ($1,149) wo/training ($659)	$399
	Forensic Engineering	International Board of Forensic Engineering Sciences	www.iifes.org	FSAB	16; Outside of FSSP	$300	N/A	$50
	Forensic Engineering	National Academy of Forensic Engineers	www.nafe.org	Council of Engineering and Scientific Specialty	Outside of FSSP (313 Board Certified)	$125	N/A	$200–$300
	Civil Engineering	American Society of Civil Engineers	www.asce.org	ANSI	Outside of FSSP	N/A	N/A	N/A

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Toxicology	Forensic Toxicology	American Board of Forensic Toxicology	www.abft.org	FSAB	410	$150	N/A	$100
Anthropology	Forensic Anthropology	American Board of Forensic Anthropology	www.theabfa.org	FSAB	79	$250	$300	$100 Annual Dues only
	Forensic Psychology	American Board of Forensic Psychology	www.abfp.com		299; (Outside of FSSP)	$125	$450	N/A
	Forensic Psychiatry	American College of Forensic Psychiatry	www.forensicpsychonline.com		Outside FSSPs	N/A	N/A	N/A
	Forensic Psychiatry	American Board of Psychiatry and Neurology	www.abpn.com	American Board of Medical Specialties	Outside FSSPs	$700	$2,300	$150
	Forensic Nursing	International Association of Forensic Nurses	www.forensicnurses.org		1500+; (Outside of FSSP)	$275/IAFN Member; $400/Non-Member	$400/IAFN Member; $525/Non-Member	$116
Odontology	Odontology—Bite Mark	American Board of Forensic Odontology	www.abfo.org	FSAB	160	$400	$1,000	$230

APPENDIX B: Variations in the Requirements of Three Accredited Certifying Bodies (CB)

Requirement	CB#1	CB#2	CB#3
Degree		X	X
Experience	X	X	X
Written Exam (initial)	X	X	X
Practical Exam (initial)	X	X	X
Oral Demonstration (initial)	X*		X**
Continuing Education	X	X	X
Retesting	X		X

*transcript or moot court   **specific to practical exam

APPENDIX C: Forensic Discipline/Subdisciplines without Certification Bodies

ILAC Guide 19 Catagories of Testing	Discipline/Sub-Discipline
Audio, Video and Computer Analysis	Digital Evidence - Audio
Firearms and Tool Marks	Serial # Restoration
Firearms and Tool Marks	Trajectory Reconstruction
Marks and Impression	Impression - Tire tread
Trace Evidence	Glass
Trace Evidence	Explosives
Trace Evidence	Soils
Trace Evidence	Botanical Material
Trace Evidence	Gun Shot Residue
Trace Evidence	Lubricants

APPENDIX D: Additional Considerations for Implementation

Additional considerations for implementation include:
- Certifying bodies have varying fee schedules.
- Educational programs or preparatory courses should be developed to help practitioners prepare for certification examinations.
- Certification bodies will need to develop programs or policies to address practitioners with more than one certification (i.e., continuing education credit hours could be used toward multiple recertifications).
- There may be human resource challenges such as revising position descriptions, certifying existing employees, and modifying employment policies and procedures. Policies and procedures need to be in place if practitioners are unsuccessful in obtaining certification or do not meet the minimum certification requirements. Further, policies and procedures need to be developed to address those practitioners who can immediately achieve certification versus those who will have to wait for a certification program to be developed, particularly if incentives are being offered.
- Licensure is not a substitution for certification, primarily because it is only recognized at the state level.
- A state or local government or agency may attempt to substitute its own certification that is not accredited.
- Budgetary constraints may impact the ability to obtain and maintain certification.

APPENDIX E: Industry Definitions for Professional Recognition Programs

1. Licensure is a mandatory process used by a governmental agency that grants a time-limited permission for an individual to perform the duties of his or her profession after verifying that this individual has met specific standardized criteria.
2. Registration is a process in which a governmental agency grants a time-limited status on a registry determined by specified knowledge-based requirements such as experience, education, or examinations. The registration allows an individual to practice, similar to licensure, but also maintains a continuous record of the individual's past and current occupational status.
3. Credentialing is a term that includes the concepts of accreditation, licensure, registration, and professional certification. Credentialing is the formal recognition or recording of the recognition status of individuals, organizations, institutions, programs, processes, services, or products that meet specific standardized criteria. Credentialing is done by an authorized and qualified entity.
4. Another form of recognizing the knowledge, skills, and abilities of an individual is through certificate programs. Certificate programs[8] are learning events developed and administered by the certificate issuer. A certificate is presented at the end of a training course as recognition of specific skills. Unlike certification programs, these certificates do not have renewal requirements and cannot be revoked.

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[8] ASTM E2659-09e1, Standard Practice for Certification Programs