



# NATIONAL COMMISSION ON FORENSIC SCIENCE

**NIST**  
National Institute of  
Standards and Technology  
U.S. Department of Commerce

## Views of the Commission Certification of Forensic Science Practitioners

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Accreditation and Proficiency Testing
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*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. This document does not formally recommend any action by a government entity, and thus no further action will be taken upon its approval by the Commission.*

### Overview

The implementation of robust and standardized certification programs using accredited certification bodies complements the accreditation of forensic science service practitioners 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 service practitioners.<sup>1</sup>

### Views of the Commission

It is the view of the Commission that forensic science agencies should

- Determine applicability of certification depending on the job responsibilities of the specific individual and the availability of certification programs, including but not limited to, managers, analysts and technical support.
- 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 similar support to practitioners, if there is not a certification program available in a specific category of testing, to maintain knowledge and skills.

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<sup>1</sup> 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.

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 five years from implementation of this document. Personnel entering the field after implementation shall obtain certification within one 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 their profession. Certification also provides the general public and the judicial system 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 entitled *Strengthening Forensic Science in the United States: A Path Forward* (“NAS Report”) 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.”<sup>2</sup>

Professional certification bodies in forensic science have been in practice for over thirty years.<sup>3</sup> 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 the several organizations (Appendix A). 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 fifty practitioners.<sup>4</sup>

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<sup>2</sup> “Strengthening Forensic Science in the United States: a Path Forward” (2009). The National Academies Press. Pg. 25 and Pg 125

<sup>3</sup> See Appendix A: Variations Between Certification Organizations

<sup>4</sup> Swift, Roy A. “Increasing the Credibility and Quality of Certification through Accreditation.” Presentation to the ACPTIWG. ix A: Variations Between Certification Organizations

The types of confirmation of qualifications used in other professions<sup>5</sup> 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 D).

The mandatory certification of all 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 their profession. Certification also provides the public and the judicial system 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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<sup>5</sup> Corrigan, Melissa Murer. "Licensure and Credentialing in Non-Forensic Fields." Presentation to the ACPTIWG.

## Appendix A: Forensic Certification Bodies

<b>ILAC G19 Categories of Testing</b>	<b>Discipline / Sub- discipline</b>	<b>Certification Organization</b>	<b>Contact Info</b>	<b>Accrediting Organization</b>	<b>approx. # of diplomates or certified individuals</b>	<b>Application Fee</b>	<b>Examination Fee</b>	<b>Annual Recertification Fee or Dues</b>
<b>Controlled Substances</b>	Drug Analysis	American Board of Criminalistics	www.criminalistics.c om	FSAB	232	\$50	\$250	\$50
<b>Hairs, Blood, Body Fluids and Tissues</b>	Molecular Biology	American Board of Criminalistics	www.criminalistics.c om	FSAB	364	\$50	\$250	\$50
<b>Trace Evidence</b>	Fire Debris	American Board of Criminalistics	www.criminalistics.c om	FSAB	47	\$50	\$250	\$50
<b>Trace Evidence</b>	Hairs & Fibers	American Board of Criminalistics	www.criminalistics.c om	FSAB	27	\$50	\$250	\$50
<b>Trace Evidence</b>	Paint and Polymers	American Board of Criminalistics	www.criminalistics.c om	FSAB	22	\$50	\$250	\$50
<b>Entomology</b>	Forensic Entomology	American Board of Forensic Entomology	www.forensicentomo logist.org		16	\$50	\$50	\$50
<b>Handwriting and Document Examination</b>	Forensic Document Examination	American Board of Forensic Document Examiners	www.abfde.org	FSAB	106	\$250	n/a	250 Annual Dues
<b>Handwriting and Document Examination</b>	Forensic Document Examination	Board of Forensic Document Examination	www.bfde.org	FSAB	14	\$100	\$500	\$50
<b>Fingerprints</b>	Latent Fingerprints	International Association for Identification	www.theiai.org		1041	\$200/ IAI Members; \$300/Non- Members	n/a	Recert every 5 yrs: \$200/IAI Members; \$300/Non- Members
<b>Fingerprints</b>	Ten print fingerprints	International Association for Identification	www.theiai.org		117	\$200/ IAI Members; \$300/Non- Members	n/a	Recert every 5 yrs: \$200/IAI Members; \$300/Non- Members

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<b>Scene Investigation</b>	Blood stain pattern	International Association for Identification	www.theiai.org		39	\$200/ IAI Members; \$300/Non- Members	n/a	Recert every 5 yrs: \$200/IAI Members; \$300/Non- Members
<b>Scene Investigation</b>	Crime scene-4 levels	International Association for Identification	www.theiai.org		1625: Outside F.S. Service Practitioners	\$200/ IAI Members; \$300/Non- Members	n/a	Recert every 5 yrs: \$200/IAI Members; \$300/Non- Members
<b>Scene Investigation</b>	Forensic Video	International Association for Identification	www.theiai.org		23	\$200/ IAI Members; \$300/Non- Members	n/a	Recert every 5 yrs: \$200/IAI Members; \$300/Non- Members
<b>Scene Investigation</b>	Forensic Artist	International Association for Identification	www.theiai.org		34	\$200/ IAI Members; \$300/Non- Members	n/a	Recert every 5 yrs: \$200/IAI Members; \$300/Non- Members
<b>Scene Investigation</b>	Forensic photography	International Association for Identification	www.theiai.org		57	\$200/ IAI Members; \$300/Non- Members	n/a	Recert every 5 yrs: \$200/IAI Members; \$300/Non- Members
<b>Scene Investigation</b>	Evidence	Evidence Photographers International Council	www.evidencephotog raphers.com		55	\$300	n/a	\$139
<b>Marks and Impressions</b>	Footwear	International Association of Identification	www.theiai.org		105	\$200/ IAI Members; \$300/Non- Members	\$300	\$200/IAI Members; \$300/Non- Members

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<b>Audio, Video and Computer Analysis</b>	Video	International Association of Identification	www.theiai.org		23	\$200/ IAI Members; \$300/Non- Members	\$300	\$200/IAI Members; \$300/Non- Members
<b>Audio, Video and Computer Analysis</b>	Forensic Artist	International Association of Identification	www.theiai.org		34: Outside F.S. Service Practitioners	\$200/ IAI Members; \$300/Non- Members	\$300	\$200/IAI Members; \$300/Non- Members
<b>Marks and Impressions</b>	Footwear/ Fingerprints	Canadian Identification society	www.cis-sci.ca		NA for U.S.A.	\$150	n/a	\$150
	Evidence Handling	International Association of Property and Evidence	www.IAPE.org		1400+; Outside F.S. Service Provider	\$150	n/a	\$100.00
<b>Firearms and ballistics</b>	Firearms	Association of Firearms & Toolmarks Examiners	www.afte.org		116	n/a	\$250	\$25
<b>Marks and Impressions</b>	Toolmarks	Association of Firearms & Toolmarks Examiners	www.afte.org		46	n/a	\$250	\$25
	Gunshot Residue	Association of Firearms & Toolmarks Examiners	www.afte.org		39	n/a	\$250	\$25
<b>Audio, Video and Computer Analysis</b>	Digital Evidence - Digital Forensics Certified Practitioner and DFCA	Digital Forensics Computer Board	www.dfcb.org		178	\$250.00	\$100	

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<b>Audio, Video and Computer Analysis</b>	Digital Evidence - Certified Computer Examiner (CCE)	International Society of Forensic Computer Examiners	www.isfce.org		805	\$395	n/a	\$75
<b>Audio, Video and Computer Analysis</b>	Digital Evidence - Certified Digital Forensic Examiner (CDFE), Certified Digital Media Collector (CDMC), Certified Computer Crime Investigator (CCCI)	DOD Cyber Crime Center	www.dc3.mil/dcita/d citaCertific ation.php		Training source			
<b>Audio, Video and Computer Analysis</b>	Digital Evidence - Certified Forensic Computer Examiner (CFCE)	International Association of Computer Investigation Specialists	www.iacis.com		1963	\$750	n/a	\$150
<b>Audio, Video and Computer Analysis</b>	Digital Evidence - Certified Electronic Evidence Collection Specialist Certification (CEECS)	International Association of Computer Investigation Specialists	www.iacis.com		26	\$750	n/a	\$100
<b>Audio, Video and Computer Analysis</b>	Digital Evidence - Certified Forensic Analyst, Certified Forensic Examiner, Reverse Engineering Malware, many others	Global Information Assurance Certification	www.giac.org	ANSI	GOAC # certified is not available, but 80,079 certifications granted	n/a	w/training (\$1,149) wo/training (\$659)	\$399
	Forensic Engineering	International Institute of Forensic Engineering Sciences	www.iifes.org	FSAB	16; Outside of F.S. Service Provider	\$300	n/a	\$50

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	Forensic Engineering	National Academy of Forensic Engineers (NAFE)	www.nafe.org	Council of Engineering and Scientific Specialty	Outside of F.S. Service Provider (313 Board Certified)	\$125	n/a	\$200 - \$300
	Civil Engineering	American Society of Civil Engineers (ASCE)	www.asce.org	ANSI	Outside of F.S. Service Provider			
<b>Toxicology</b>	Forensic Toxicology	American Board of Forensic Toxicology	www.abft.org	FSAB	410	\$150	n/a	\$100
<b>Anthropology</b>	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 F.S. Service Provider)	\$125	\$450	n/a
	Forensic Psychiatry	American College of Forensic Psychiatry	www.forensicpsycho nline.com		Outside F.S. Service Practitioners			
	Forensic Psychiatry	American Board of Psychiatry & Neurology	www.abpn.com	American Board of Medical Specialties	Outside F.S. Service Practitioners	\$700	\$2,300	\$150
	Forensic Nursing	International Association of Forensic Nurses	www.forensicnurses. org		1500+; (Outside of F.S. Service Provider)	\$275/IAFN Member; \$400/Non- Member	\$400/IAFN Member; \$525/Non- Member	\$116
<b>Odontology</b>	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)**

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

\*transcript or moot court

\*\*specific to practical exam

**APPENDIX C: Forensic Discipline/Subdisciplines without Certification Bodies**

<b>Guide 19 Categories of Testing</b>	<b>Discipline/Sub- discipline</b>
Audio, Video and Computer Analysis	Digital Evidence - Audio
Audio, Video and Computer Analysis	Digital Evidence - Video
Firearms and Toolmarks	Serial # Restoration
Firearms and Toolmarks	Trajectory Reconstruction
Marks and Impression	Impression - Tire tread
Scene Investigation	Photographer
Trace Evidence	Glass
Trace Evidence	Explosives
Trace Evidence	Soils
Trace Evidence	Botanical Material
Trace Evidence	Gun Shot Residue
Trace Evidence	Lubricants

**APPENDIX D: Industry Definitions for Professional Recognition Programs**

1. Licensure is a mandatory process used by a governmental agency which grants a time-limited permission for an individual to perform the duties of their 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 past and current occupational status of the individual.

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 certificate programs. Certificate programs<sup>6</sup> 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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<sup>6</sup> ASTM E2659-09e1, Standard Practice for Certification Programs