

ANSI/ASB Standard 105, Second Edition
2025

Minimum Education Requirements for Firearm and Toolmark Examiner Trainees



Minimum Education Requirements for Firearm and Toolmark Examiner Trainees

ASB Approved June 2025

ANSI Approved September 2025



410 North 21st Street
Colorado Springs, CO 80904

This document may be downloaded from: www.aafs.org/academy-standards-board

This document is provided by the AAFS Standards Board (ASB). Users are permitted to print and download the document and extracts from the document for personal use, however the following actions are prohibited under copyright:

- *modifying this document or its related graphics in any way;*
- *using any illustrations or any graphics separately from any accompanying text; and,*
- *failing to include an acknowledgment alongside the copied material noting the AAFS Standards Board as the copyright holder and publisher.*

Users may not reproduce, duplicate, copy, sell, resell, or exploit for any commercial purposes this document or any portion of it. Users may create a hyperlink to www.aafs.org/academy-standards-board to allow persons to download their individual free copy of this document. The hyperlink must not portray AAFS, the AAFS Standards Board, this document, our agents, associates and affiliates in an offensive manner, or be misleading or false. ASB trademarks may not be used as part of a link without written permission from ASB.

The AAFS Standards Board retains the sole right to submit this document to any other forum for any purpose.

Certain commercial entities, equipment or materials may be identified in this document to describe a procedure or concept adequately. Such identification is not intended to imply recommendations or endorsement by the AAFS or the AAFS Standards Board, nor is it intended to imply that the entities, materials, or equipment are necessarily the best available for the purpose.

Proper citation of ASB documents includes the designation, title, edition, and year of publication.

*This document is copyrighted © by the AAFS Standards Board, LLC. 2025 All rights are reserved.
410 North 21st Street, Colorado Springs, CO 80904, www.aafs.org/academy-standards-board.*

Foreword

This standard identifies the education requirements for newly hired firearm and toolmark examiner trainees. This document is intended to provide minimum education requirements for firearm and toolmark examiner trainees.

The American Academy of Forensic Sciences established the Academy Standards Board (ASB) in 2015 with a vision of safeguarding Justice, Integrity, and Fairness through Consensus Based American National Standards. To that end, the ASB develops consensus based forensic standards within a framework accredited by the American National Standards Institute (ANSI), and provides training to support those standards. ASB values integrity, scientific rigor, openness, due process, collaboration, excellence, diversity and inclusion. ASB is dedicated to developing and making freely accessible the highest quality documentary forensic science consensus Standards, Guidelines, Best Practices, and Technical Reports in a wide range of forensic science disciplines as a service to forensic practitioners and the legal system.

This document was revised, prepared, and finalized as a standard by the Firearms and Toolmarks Consensus Body of the AAFS Standards Board. The draft of this standard was developed by the Firearms and Toolmarks Subcommittee of the Organization of Scientific Area Committees (OSAC) for Forensic Science.

Questions, comments, and suggestions for the improvement of this document can be sent to AAFS-ASB Secretariat, asb@aafs.org or 410 N 21st Street, Colorado Springs, CO 80904.

All hyperlinks and web addresses shown in this document are current as of the publication date of this standard.

ASB procedures are publicly available, free of cost, at www.aafs.org/academy-standards-board.

Keywords: *Bachelor's degree, firearm and toolmark examination, firearm and toolmark examiner.*

Table of Contents

1 Scope 1

2 Normative References 1

3 Terms and Definitions 1

4 Requirements 1

Annex A (informative) Bibliography 3

Minimum Education Requirements for Firearm and Toolmark Examiner Trainees

1 Scope

This document provides the minimum education requirements for forensic laboratory applicants and employees entering a training program in firearm and toolmark examination. This document does not apply to previously trained and qualified firearm and toolmark examiners who may be temporarily referred to as trainees when they change employment.

2 Normative References

There are no normative reference documents. Annex A, Bibliography, contains informative references.

3 Terms and Definitions

For purposes of this document, the following definitions apply.

3.1

firearm and toolmark examiner

A person who has completed training in the discipline of firearm and toolmark examination and who is currently authorized to perform work in this discipline.

3.2

firearm and toolmark examiner trainee

A person who is entering or undergoing, but has not yet completed, training in the discipline of firearm and toolmark examination.

3.3

firearm and toolmark examination

A discipline of forensic science charged with conducting comparison examinations of tools and toolmarks and reporting the conclusion. When the tool is a firearm, the discipline also seeks to answer relevant questions about the firearms or ammunition components involved in an incident.

3.4

firearm and toolmark examiner applicant

A person seeking employment as a firearm and toolmark examiner trainee.

4 Requirements

4.1 Firearm and Toolmark Examiner trainees shall have a minimum of a bachelor's degree from an accredited college or university, or international equivalent.

4.2 The degree should be in a natural science or engineering.

4.3 The degree shall include the successful completion of coursework in chemistry and physics that includes a laboratory component, as well as the successful completion of coursework in statistics.

4.4 If the coursework 4.3 is not included in the degree program, the trainee shall successfully complete coursework in chemistry and physics that includes a laboratory component, as well as successfully complete coursework in statistics, by the end of the training period.

The requirements in this standard become effective one year after the ratification of this document.

Annex A **(informative)**

Bibliography

The following bibliography is not intended to be an all-inclusive list, review, or endorsement of literature on this topic. The goal of the bibliography is to provide examples of publications addressed in the standard.

SWGgun documents can be downloaded from:

<https://www.nist.gov/topics/organization-scientific-area-committees-forensic-science/firearms-toolmarks-subcommittee>



ASB
ACADEMY
STANDARDS BOARD

Academy Standards Board
410 North 21st Street
Colorado Springs, CO 80904

www.aafs.org/academy-standards-board