

The American Board of Forensic Document Examiners

OBJECTIVES FOR TRAINING



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FOREWORD

The American Board of Forensic Document Examiners, Inc. was organized in 1977 with one goal being the establishment of standards of qualification for this scientific field. In keeping with this goal, the Board has prepared and published these objectives for training.

In addition, the objectives outlined in this publication are designed to:

1. Establish what the Board considers to be essential aspects of training;
2. Assist those desiring to establish training programs;
3. Ensure that training programs provide the education and experience necessary to successfully complete certification testing;
4. Assist those seeking information regarding qualifications of forensic document examiners.

The Board recognizes the existence of numerous outlines for training programs that, when followed, should provide the basis to meet these objectives.

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INTRODUCTION

A full-time formal training program for a minimum of 24 months under the direct tutelage of an experienced, well-qualified forensic document examiner is recognized as a necessary beginning to provide the new trainee with the knowledge and experience necessary to become a forensic document examiner. While meetings, seminars, workshops, courses, case reviews, and brief affiliations with other forensic document examiners and their laboratories are important supplements to training, they do not, in and of themselves, constitute an effective training program. Long term affiliation provides for a better assessment of a trainee's strengths and weaknesses, a better record of training experience and scope, uniformity in training, and a basis for the determination that objectives for training have been met.

An important part of training is the selection of participants. Recommended qualifications for a candidate to a training program include the following:

1. Possession of a baccalaureate degree in a science, police science or related area from an accredited college or university.
2. Natural or corrected vision of 20/20 in each eye.
3. No evidence of color or form blindness.
4. Good oral and written communication skills.

As important as the selection of a good trainee candidate is the selection of a well-qualified instructor. Recommended qualifications for an instructor include the following:

1. Certification by the American Board of Forensic Document Examiners, Inc.
2. Active participation in Board recognized regional or national professional organizations involving questioned documents.
3. A history of writing and publishing research papers of scientific merit.
4. Court testimony as an expert witness in the field of forensic document examination on at least twenty occasions.

5. Experience providing instruction in forensic document examination to investigators, college students, or other trainees.

These objectives for training are designed to provide for a well-rounded basis of knowledge and experience essential for becoming a fully qualified forensic document examiner. It is recognized that some agency needs will require special emphasis on certain portions of the discipline. However, the special emphasis should be supplemental to the training and not at the expense of other essential aspects.

DEFINITION OF TERMS

Understand-	To have a fair knowledge of the basic principles or facts. Implies the necessity for further research before conducting examinations.
Working Knowledge-	To have substantial knowledge and case experience. Implies the ability to conduct routine examinations without further research.

SECTION I

THE FORENSIC SCIENCE LABORATORY

1. Have an understanding of the history of forensic science.
2. Have an understanding of the various disciplines in forensic sciences.
3. Have a working knowledge of how questioned documents differs from other forensic science disciplines and other handwriting related fields.
4. Have a working knowledge of standard evidence rules with respect to chain of custody, security, preservation, handling, storage, and retrieval.

SECTION II

THE QUESTIONED DOCUMENT SECTION

1. Have read and studied various textbooks in questioned documents from the list provided in the Board publication "Syllabus/Bibliography."
2. Have an understanding of the history of the questioned document field to include well-known cases involving the discipline.
3. Have a working knowledge of questioned document terminology.
4. Have a working knowledge of general guidelines for effective report writing.

SECTION III

LABORATORY EQUIPMENT

1. Have a working knowledge of the use and an understanding of the principles applied in the following equipment:
 - A. Stereoscopic binocular microscope
 - B. Typewriter grids
 - C. Electrostatic Detection Apparatus
 - D. Infrared, infrared luminescence, and ultraviolet viewing devices
 - E. Comparison microscopes
 - F. Micrometer
 - G. Precision measuring devices.
2. Have an understanding of the possible document examination value of the following equipment or procedures:
 - A. Scanning electron microscope
 - B. Spectrophotometer
 - C. Lasers
 - D. Gas chromatography
 - E. Soft X-rays
 - F. High pressure liquid chromatography
 - G. Other specialized laboratory equipment

SECTION IV

PHOTOGRAPHY

1. Have a working knowledge of the forensic value of oblique and transmitted light on questioned documents.
2. Have a working knowledge of the use of various filters on questioned documents.
3. Have an understanding of the electromagnetic spectrum and the theories applicable to infrared, infrared luminescence, and ultra-violet document examinations.
4. Have an understanding of the basic principles of photography.
5. Have an understanding of the various types of cameras.
6. Have an understanding of the various types of films and developers and how this knowledge can be used to achieve optimum results.
7. Have an understanding of film development and printing.

SECTION V

HANDWRITING - CHARACTERISTICS

1. Have an understanding of the various handwriting systems currently used in the United States or Canada.
2. Have an understanding of past United States or Canadian handwriting systems.
3. Have a working knowledge of ethnic characteristics in handwriting.
4. Have an understanding of various foreign handwriting systems.

5. Have an understanding of the physiological and motor skill requirements for writing.
6. Have an understanding of family similarity in handwriting.
7. Have an understanding of the possible effects on handwriting of age, drugs, alcohol, various diseases, blindness, hypnosis, unusual writing positions, mental disorders, outside influences, fear, illiteracy, unusual writing instrument or surface, guided hand signatures, and space limitations.
8. Have an understanding of various attempts to classify handwriting and the problems involved in such endeavors.

SECTION VI

HANDWRITING - IDENTIFICATION

1. Have a working knowledge of how handwriting becomes individualized.
2. Have a working knowledge of why handwriting contains variation.
3. Have a working knowledge of how to differentiate between variations and differences.
4. Have an understanding of the application of probability to questioned document examination. Be able to apply appropriate qualitative weight to individual characteristics.
5. Have a working knowledge of additional elements involved in the identification of hand printing and numerals.
6. Have a working knowledge of the necessary elements for an identification.
7. Have a working knowledge of the necessary elements for an elimination.

SECTION VII

HANDWRITING - DISGUISE

1. Have a working knowledge concerning the recognition of disguised handwriting.
2. Have a working knowledge of the various forms of disguise and their characteristics.
3. Have a working knowledge of the additional examination concerns of ambidextrous subjects.
4. Have an understanding of common techniques that can be used by investigators to discourage disguise.
5. Have a working knowledge of techniques used to differentiate disguised handwriting and other abnormal handwriting such as that affected by various physical and mental disorders.

SECTION VIII

HANDWRITING - KNOWN SPECIMEN STANDARDS

1. Have an understanding of current court requirements regarding admissibility of specimen standards.
2. Have an understanding of the various types of known specimen standards.
3. Have a working knowledge of what constitutes adequate known specimen standards.
4. Have a working knowledge of common sources for non-request specimen standards.
5. Have a working knowledge of common problems concerning known specimen standards submitted for comparison.

SECTION IX

HANDWRITING - FORGERIES

1. Have an understanding of the legal definition of forgery.
2. Have a working knowledge of the different types of forgeries, how they are produced, and their unique characteristics.
3. Have an understanding of other methods by which a signature may be reproduced or transferred.
4. Have a working knowledge of differentiating genuine signatures and forgeries.
5. Have a working knowledge of the techniques used to determine the writer of a forgery.
6. Have an understanding of the additional elements associated with extended forged writings.
7. Have a working knowledge of the effects of excessive speed, carelessness, size restrictions, etc., on genuine signatures.
8. Have a working knowledge of how to differentiate between retouching indicative of forgery and similar markings found in genuine signatures.

SECTION X

TYPEWRITING - GENERAL

1. Have an understanding of the history of typewriters.
2. Have a working knowledge of the various type of typewriters (i.e., typebar, ball element, printwheel) and the differences in their examination.
3. Have an understanding of the manufacture and sale of typewriters and typewriter parts. Have a working knowledge of how this affects typewriter classification.

4. Have an understanding of the various typewriter classification systems available. Have a working knowledge of at least one classification system.
5. Have a working knowledge of what constitutes adequate typewriter standard specimens.
6. Have a working knowledge in use of typewriter grids.
7. Have a working knowledge of basic typewriter nomenclature.
8. Have an understanding of the basic mechanics of the various classes of typewriters.

SECTION XI

TYPEWRITING - IDENTIFICATION

1. Have a working knowledge of characteristics that indicate a certain class of typewriter.
2. Have a working knowledge of what constitutes an individual characteristic.
3. Have a working knowledge of what constitutes sufficient characteristics to warrant an identification or an elimination of a specific machine.

SECTION XII

TYPEWRITING - RIBBON

1. Have a working knowledge of the various types of typewriter ribbons.
2. Have a working knowledge of how individual characteristics of a typed text can be caused by the ribbon.

3. Have a working knowledge of the forensic value of typewriter ribbons.
4. Have a working knowledge of how to differentiate between fabric and plastic ribbons from a typed specimen.
5. Have an understanding of the capabilities of specialized ink testing of typewriter ribbon ink.

SECTION XIII

TYPEWRITING - PRINTERS

1. Have a working knowledge of the various types of printers (e.g., dot matrix, thermal, laser) and the class characteristics of each.
2. Have a working knowledge of what constitutes an individual characteristic.
3. Have an understanding of how various computer hardware and software components can affect a printer.
4. Have an understanding of the multi-typeface capabilities of printers and how this affects identifications or eliminations.
5. Have an understanding of current trends in the printer field.

SECTION XIV

OTHER MECHANICAL DEVICES

1. Have an understanding of the basic mechanics involved in the manufacture and use of checkwriters, notary seals, rubber stamps, price marking devices, writing machines, adding machines, and cash registers.
2. Have an understanding of how individual characteristics develop various mechanical devices and how they affect the final product.

3. Have a working knowledge of the characteristics of a signature prepared by a writing machine.
4. Have a working knowledge of domestic manufacturer characteristics of checkwriter impressions.
5. Have a working knowledge of what constitutes proper and adequate known specimen standards.

SECTION XV

OFFICE COPIERS

1. Have an understanding of the history of office copiers.
2. Have an understanding of the class characteristics of common copying processes, toners, and fusing methods.
3. Have an understanding of the common class characteristics of office copiers as found on the copies.
4. Have a working knowledge of the common individual characteristics of office copiers as found on the copies.
5. Have an understanding of the basic principles, class characteristics, and individual characteristics of facsimile machines.

SECTION XVI

PRINTING PROCESSES

1. Have an understanding of the history of printing.
2. Have a working knowledge of class characteristics of various printing processes to include letterpress, flexography, gravure, intaglio, silk screen, and offset.

3. Have an understanding of the basic mechanics of the various printing processes.
4. Observe various types of printing presses in operation.
5. Have a working knowledge of the common methods used in counterfeiting.

SECTION XVII

INK AND PAPER

1. Have an understanding of the history of paper, ink, and various writing instruments and how they are currently manufactured.
2. Have a working knowledge of non-destructive differentiation tests that can be performed on ink and paper.
3. Have an understanding of thin layer chromatography.
4. Have an understanding of other destructive tests that can be performed on ink and paper.
5. Have an understanding of the limitations of ink and paper comparison tests.
6. Have an understanding of various techniques available to date a document by ink or paper.
7. Have a working knowledge of edge matching.
8. Have an understanding of the use and detection of common invisible inks.

SECTION XVIII

MISCELLANEOUS DOCUMENT PROBLEMS

1. Have a working knowledge of various techniques to determine sequence of stroke.
2. Have an understanding of various techniques for dating a document. Have an understanding of the limitations of document dating.
3. Have an understanding of techniques and common solutions used to restore and preserve charred documents.
4. Have an understanding of various photographic techniques used to decipher charred documents.
5. Have a working knowledge of techniques to enhance and record indented writings.
6. Have a working knowledge of common forms of alterations.
7. Have a working knowledge of techniques to differentiate alterations and original entries.
8. Have a working knowledge of techniques to restore various forms of obliterated text.
9. Have an understanding of the possible forensic value involved with staples, tape, adhesives, binding material, and folds

SECTION XIX

COURTROOM TESTIMONY

1. Have an understanding of general codes of conduct and dress expected in a courtroom.
2. Have an understanding of general court procedures regarding expert testimony.

3. Have a working knowledge of expressing technical findings in non-technical terms.
4. Have an understanding of and be able to locate court citations involving various aspects of questioned document examination testimony.
5. Have an understanding of the strengths and weaknesses of various forms of demonstrative aids and be able to lay out and prepare at least one form effectively.
6. Prepare a series of individualized voir dire and direct examination questions along with a curriculum vitae.
7. Observe the pretrial conference and testimony of experienced document examiners in several instances.
8. Testify in several mock trials.

SECTION XX

RESEARCH AND DEVELOPMENT

1. Keep abreast of current research results through the study of board recommended periodicals, attendance at Board recognized professional organization meetings, and review of research papers.
2. Have an understanding of the effect of current technology trends on the questioned document field.
3. Conduct a research project culminating in a formal research paper. Present the paper at a Board recognized professional organization meeting.