FORENSIC DOCUMENT EXAMINATION TRAINING MANUAL

Table of Contents

Revision History

Revision #	Description of Changes
1	Original Version to ISPFS

1.0 Introduction

The forensic document examination training plan is a standard and fundamental program. The training plan will equip the trainee through the various modules to build on knowledge, skills, and abilities. It is through the outlined modules that the trainee will develop the knowledge, skills, and abilities to independently and competently examine, and report results on routine document cases. It is at the discretion of the trainer the order in which these modules will be taught in the training program. Upon successful completion of the training, the trainee will be capable of giving expert testimony as a qualified expert in the field of forensic document examination.

Meeting the objectives of the training program is dependent on the trainee's progress and demonstrated proficiency. Dedicated documentation of the training plan progress is of the utmost importance. The onus of demonstrating competency falls with the trainee with maintaining a file of training documentation and performance. Maximizing effort correlates to effective results. The opportunity to learn and complete the objectives of each module of the training plan will bear directly on the quality of the examiner performance.

The trainee will be expected to study and complete the modules covered in the training manual. The trainee will be expected to operate all pertinent laboratory equipment and apply the discipline analytical methods and related reference collections ethically and safely. The trainee will be monitored by the discipline specific trainer who will be responsible for the training material. The successful progress and completion of the training program by the trainee is meeting the standards set by the training plan syllabus, including constructive communication and feedback with the trainer. *

The criteria for a successful written examination will require a minimum passing score of 80%. Oral, practical, and competency testing will be graded as pass or fail. Written, practical exercises, oral, competency examinations, and mock trials will be evaluated by the trainer. The trainee should obtain the expected results with no unexplainable discrepancies. If the accepted progress criteria are not met, any remediation training may be considered for the trainee.

*NOTE: Pre-requisite - Modules that shall be completed successfully prior to starting the given module.

Co-requisite – Modules that can be taken concurrently with the given module.

Training Resources - List of available resources for the training program.

2.0 Roles and Responsibilities

2.1 Supervisor

2.1.1 The Supervisor should monitor the progress of the trainee.

2.2 Technical Lead

2.2.1 The technical lead will monitor and assist in the completion of the training. The trainer has responsibility for training matters. The trainee will be expected to meet the standards set by the Discipline Leader/on-site trainer for successful completion of training. The Technical Lead will be responsible for final approval on the completion of each training section/module.

2.3 Trainer

2.3.1 A well-qualified instructor may possess the following:

2.3.1.1 Member of recognized regional or national professional organizations involving questioned documents.

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

2.3.1.3 The trainer is required to actively participate in the trainees' completion of the required sections of the Training Plan. The Technical Lead will be responsible for assigning training modules and setting the training timeline to be completed by the trainee.

Note: The Supervisor/Technical Leader/Trainer may be the same individual or a designee.

2.4 Trainee

2.4.1 Recommended qualifications for a candidate to a training program include the following:

2.4.1.1 Possession of good moral character, high integrity, high ethical standards, and good professional standing.

2.4.1.2 Natural or corrected vision of 20/20 in each eye.

2.4.1.3 Test for evidence of color or form blindness.

2.4.1.4 Good oral and written communication skills.

2.5 Training Documentation:

2.5.1 It is recommended that the trainee keep a loose-leaf notebook, or electronic notebook of study notes on each of the items shown in the training plan for research, discussion, demonstration, study or practical work.

2.5.2 This training notebook (physical or electronic) can include handwritten/typed notes, charts, graphs, photographs, brief photocopied material, etc., at your discretion, but it should address and broaden on each of the required items of study set out in the training plan.

2.5.3 Organization of the notebook paralleling the training plan is suggested. This notebook will serve as a ready reference in the months and even years

following your qualification and will assist in documenting the trainees' progress during training.

2.6 Training Period

2.6.1 The length of the training period is approximately 18-24 months. Under the direct supervision of a qualified examiner, the trainee will assist with casework throughout the training period. This will familiarize the trainee with different forms of case evidence, packaging, applied analytical techniques and note taking.

2.7 Administrative Requirements

2.7.1 The following documentation should be compiled and completed to demonstrate the completion of training in this module. All documentation should be contained within the trainee logbook.

2.7.1.1 If remedial training is deemed necessary, the completion of all documentation should be delayed until the trainee has been re-evaluated. All remedial documentation should also be contained within the trainee logbook.

2.7.2 Documentation:

2.7.2.1 Trainer(s) participation form
2.7.2.2 Module evaluation form
2.7.2.3 Remedial evaluation form (if applicable)
2.7.2.4 Original examinations
2.7.2.5 Mock-trial/Courtroom Testimony evaluation form (if applicable)
2.7.2.6 External Training certificates/forms

2.7.3 All summaries, case notes and exercises that are generated as a result of internal or external training, may be contained in a separate supplemental training portfolio.

2.7.4 All graded, written tests, summaries and practical documents may also be contained within a supplemental training portfolio.

3.0 Module 1: Introduction to Forensic Document Examination

3.1 Background and Theory

3.1.1 Introduction

Forensic Document Examination has been accepted in the American court system since the early 19th Century and is widely accepted throughout the forensic science community. Forensic Document Examination has many facets. It is more than handwriting comparison, involving a wide range of scientific examinations. Due to the advances in technology in how documents are produced, the field of FDE has expanded well beyond handwriting examination. Because of the many areas covered in document examination, the training program is a minimum of two (2) years, longer than the training periods for other forensic disciplines.

3.1.2 Module Purpose

The purpose of this module is to give the trainee an overview of the functions of a Forensic Document Examination Laboratory, the history of Forensic Document Examination, methodology and procedures, overview of the various examinations performed, and the theories and principles governing Document Examination.

3.1.3 Pre-requisites

- CORE training
- Laboratory Safety Orientation

3.1.4 Instrumentation

3.1.5 Training Resources

- Trainer Instruction
- SWAFDE and MAFS Cross-Training Programs
- SWAFDE Reference Listing
- ABFDE References

3.2 Objectives, Principles, and Knowledge

3.2.1 Module Content

3.2.1.1 HISTORY OF QUESTIONED DOCUMENTS

- Pioneers
- Literature
- Famous Cases

3.2.1.2 FORENSIC DOCUMENT EXAMINATION (overview)

- Forensic Document Examinations
- Qualifications / Training Program
- Recognized FDE Organizations/Boards
- ASB/SWGDOC published standards

3.2.1.3 FDE PRACTICES & PROCEDURES

- Methodology (Observation-Inference-research-deduction)
- Evidence Handling & Control
- Case Management
- Ethics (duty of care & objectivity)

3.2.1.4 OTHER HANDWRITING FIELDS

- Linguistics
- Graphology
- Graphonometry
- Computer Recognition Systems
- Occupational Health and Safety

3.2.1.5 DOCUMENT EXAMINATION

Brief introduction to the following topics

- Equipment & Resources
- Handwriting & Signatures
- Typewriting
- Alterations & Obliterations
- Preservation & Reconstructed Documents
- Machine Generated Documents
- Indented Writing
- Ink & Paper
- Stamps & Seals
- Dating Documents
- Security Documents
- Line Sequencing
- Physical Match
- Security Documents
- Printing Processes

3.2.1.6 THEORIES AND PRINCIPLES

3.2.1.6.1 Document Examination - an Art or Science?

3.2.1.6.2 Theory of Probabilities applied to Document Examination

3.3 Health and Safety Hazards

3.3.1 None

3.4 Reading and Practical Exercises

3.4.1 Assignments and Practical Exercises

3.4.1.1 Describe the history of Forensic Document Examination, including pioneers in the field, related literature, and famous cases.

3.4.1.2 Identify the qualifications and training a Forensic Document Examiner should have and organizations/boards related to the field.

3.4.1.3 *Practical Exercise:* Summarize the practices and procedures applicable to the methodology, evidence control, and ethical considerations in Forensic Document Examination

3.4.1.4 *Practical Exercise:* Identify other fields dealing with handwriting and their relationship to Forensic Document Examination.

3.4.1.5 *Practical Exercise:* Briefly describe the various types of examinations and evidence that are involved in Forensic Document Examination and the equipment and resource available in the field.

3.4.2 Complete reference reading as assigned by trainer

3.4.2.1 See Document Examination Reference List- electronically stored

3.5 Evaluation Methods of Training

3.5.1 Successfully complete oral examination.

3.5.2 Successful completion of written examination

3.5.3 Successful completion of practical exercises

		Method of Assessment			
		Assignments	***Written Test***	***Oral Test***	***Practical***
Learning Objectives	3.4.1.1	**X**	**X**		
	3.4.1.2	**X**			
	3.4.1.3				**X**
	3.4.1.4				**X**
	3.4.1.5				**X**
Benchmark		Trainer dependent	80% +	Pass /Fail	Pass / fail

4.0 Module 2: Handwriting Examination

4.1 Background and Theory

4.1.1 Introduction

Before the advances in technology in how documents are created, the Forensic Document Examiner was most often required to examine handwriting and hand printing. Whether the handwriting/signatures on a document are authentic or not is important in casework. The examination of handwriting, like any other examination, must employ proper scientific procedures.

4.1.2 Module Purpose

This module will enable the trainee to develop the knowledge and skills to examine handwriting and hand printing. By obtaining knowledge of the proper procedure for examining handwriting, the trainee will be able to carry out examinations of handwriting.

4.1.3 Pre-requisites

- Introduction – Forensic Document Examination

4.1.4 Co-requisites

- Scientific Instrumentation / Laboratory Equipment
- Paper
- Ink & Writing Instruments

4.1.5 Instrumentation

- Stereo Microscope
- Light Sources – Natural, Transmitted, Oblique, Point Source (Direct)

4.1.6 Training Resources

- Trainer Instruction
- Laboratory Casework
- SWAFDE and MAFS Cross-Training Programs
- SWAFDE Reference Listing
- SWAFDE Practical Problem library
- ABFDE References

4.2 Objectives, Principles, and Knowledge

4.2.1 Principles and objectives covered during the handwriting module will include the following:

4.2.1.1 HISTORY OF HANDWRITING

- History of Handwriting/alphabets/symbols
- Types of Handwriting & Signatures

4.2.1.2 HANDWRITING DEVELOPMENT

- Sensory Motor Programs
- Learning to Write
- Handwriting Variation

4.2.1.3 HANDWRITING

- Definition of handwriting
- Development of handwriting
- History of handwriting
- History of handwriting examination
- The handwriting process
- Neuromuscular / Sensory Motor Programs
- Types of handwriting
    - Printing
    - Cursive
    - Numerals
    - Calligraphy
    - Shorthand
    - Supplements to Handwriting
    - Diacritical Marks
    - Punctuation Marks
- Handwriting Terminology
- Types of Signatures
    - Genuine
    - Disguise
    - Simulation
    - Freehand
    - Auto-forgery
- Signature Characteristics
- Signature Complexity

4.2.1.4 CHARACTERISTICS IN HANDWRITING

- Styles Taught
- Foreign Handwriting
- Style characteristics
- Class characteristics
- Individual characteristics
- Modern Approach (Class -v- Individual)

4.2.1.5 PRINCIPLES OF HANDWRITING IDENTIFICATION

- No two writers display same combination of handwriting features
- No two writers write the same way twice

4.2.1.6 BASIS OF IDENTIFICATION

- Type of Writing
    - Cursive vs Cursive
    - Printing vs Printing
- Line Quality
- Slope
- Tremor
- Speed and Fluency
- Pen-lifts
- Hiatuses / Hesitations
- Initial, Middle and Terminal Strokes

- General Style and System of Writing
- Construction of Letters
- Ratio
- Relative Height
- Baseline Relationship
- Connection between Letters
- Skill
- Format (margins)
- Spacing
- Punctuation Marks
- Spelling
- Diacritical marking
- Writing Implement

4.2.1.7 SPECIMEN WRITINGS

- Criteria
  - Contemporaneous
  - Quality
  - Quantity
  - Like Material
- Collection techniques
  - Dictated
  - Day to day sources
- Limitations
  - Contemporaneous
  - Provability
  - Format
  - Recognition of Effects
  - Non-original documents
  - Writing implements

4.2.1.8 FACTORS AFFECTING HANDWRITING

- INVOLUNTARY EFFECTS ON HANDWRITING/SIGNATURES
  - Alcohol
  - Age
  - Drugs
  - Illness
  - Surface
  - Position
  - Fatigue
  - Instrument
- DELIBERATE EFFECTS ON HANDWRITING/SIGNATURE
  - Methods of disguise
  - Trace
  - Disowned
  - Unwilling
  - Modified
- DISTINGUISHING BETWEEN VARIOUS FACTORS
  - Identification of the Affects

- Significance of disguised characteristics when forming a conclusion

4.2.1.9 EXAMINATION PROCEDURES

- Initial Considerations
  - Like against Like
  - Range of Specimen
  - Contemporaneous Specimen
  - Quantity of Material
  - Quality of Material
- Examination
  - Identify Dissimilarities
  - Establish Range of Variation
  - Establish the Master Patterns
  - Consideration of Accidental Formations
  - Consistency of One Writer
  - Specimen and Questioned Material

4.2.1.10 OPINIONS/CONCLUSIONS

- Definitive/Conclusive
  - Identification or Exclusion
- Qualified
  - Probable statements
- Inconclusive
  - Cannot Identify or Exclude
- Differing Opinion Scales (National & International)

4.2.1.11 HANDWRITING EXAMINATIONS

- Comparison Material Criteria (Quality / Quantity)
- Evidence Preparation
- Case Notes
- Examination Techniques
- Examination Tools/Equipment

4.3 Health and Safety Hazards

4.3.1 None

4.4 Reading and Practical Exercises

4.4.1 Assignments and Practical Exercises

4.4.1.1 Describe the history and development of handwriting, including handwriting styles taught during different time periods.

4.4.1.2 Briefly explain the principles of and processes underlying motor control and learning to write.

4.4.1.3 Express the theories and principles of handwriting identification.

4.4.1.4 Identify and explain the various handwriting characteristics.

4.4.1.5 Distinguish between Style Characteristics, Class Characteristics, and Individual Characteristics.

4.4.1.6 Outline the internal and external factors that affect handwriting.

4.4.1.7 Demonstrate the procedures involved in a handwriting examination and explain the range of possible conclusions.

4.4.2 Complete reference reading as assigned by trainer

4.4.2.1 See Document Examination Reference List- electronically stored

4.5 Evaluation Methods of Training

4.5.1 Successful completion of:

4.5.1.1 Oral examination.

4.5.1.2 Written examinations

4.5.1.3 Practical exercises

4.5.2 Successful completion of competency test for handwriting examination

		Method of Assessment			
		Assignments	Written Test	Oral Test	Practical
	4.4.1.1	**X**	**X**		
	4.4.1.2	**X**		**X**	
	4.4.1.3	**X**		**X**	
	4.4.1.4	**X**		**X**	**X**
	4.4.1.5	**X**			**X**
	4.4.1.6	**X**		**X**	
	4.4.1.7			**X**	**X**
Benchmark		Trainer dependent	80% +	Pass /Fail	Pass / fail

5.0 Module 3: Typewritten Documents

5.1 Background and Theory

5.1.1 Introduction

The examination of typewritten documents and typewriter machines may establish the following:

- The possible brand or machine used to produce a typewritten document(s)
- Whether or not a known typewriter produced the questioned typewritten document(s)
- Whether or not questioned typewritten entries were produced from a particular typewriter ribbon
- Whether or not one or more typewriters has been used to produce a document(s)
- Whether or not a typewritten document has been produced in more than one typing session

5.1.2 Module Purpose

This module will enable the trainee to identify typewritten documents and distinguish different types of typewritten processes. The trainee will also develop skills to classify typewritten text and conduct an examination and comparison between questioned and known typewriting and different types of typewriters.

5.1.3 Pre-requisites

- Introduction to Forensic Document Examination

5.1.4 Co-requisites

- Scientific Instrumentation / Laboratory Equipment
- Ink & Writing Instruments
- Paper Examination
- Printing Processes
- Mechanical Devices

5.1.5 Instrumentation

- Stereo Microscope
- Comparison Microscope (if available)
- Transmitted Light Source
- Typewriter Reference Atlases/Databases

5.1.6 Training Resources

- Trainer Instruction
- Laboratory Casework
- Typewriter Classification Programs
- HAAS atlas
- SWAFDE and MAFS Cross-Training Programs
- SWAFDE Reference Listing
- SWAFDE Practical Problem library
- ABFDE References

5.2 Objectives, Principles, and Knowledge

5.2.1 Principles and objectives covered during the Typewritten documents module will include the following:

5.2.1.1 HISTORY OF THE TYPEWRITER

- Typography Development
- Typewriting Machine Development

5.2.1.2 CLASSES OF TYPEWRITERS

- Type Bar
- Single Element

5.2.1.3 RIBBON VARIETIES

- Fabric
  - Cotton
  - Silk
  - Nylon
- Carbon
  - Correctable
  - Security
  - Single - Strike
  - Multi - Strike
- Correcting
  - Lift - off
  - Cover-up
  - Security

5.2.1.4 RIBBON TRANSCRIBING

- Method of reading
- Preservation

5.2.1.5 RIBBON TRANSFER

- Fracture patterns
- Paper Fiber Transfer
- Photographic / Microscopic Comparisons

5.2.1.6 CHARACTERISTICS OF TYPE BAR

- Manual
  - Ribbon
  - Strike Pressure Variation
  - Alignment
  - Character Damage
  - Rounded Edges
  - Reversed Side Embossment
- Electric
  - Ribbon
  - Character Damage
  - Reversed Side Embossment
  - Rounded Edges
  - Appearance/Presentation

5.2.1.7 CHARACTERISTICS OF SINGLE ELEMENT

- Ribbon
- Golf Ball
- Daisy Wheel
- Rounded Edges
- Reversed Side Embossment
- Side embossment
- Character Damage and Alignment
- Appearance/Presentation

5.2.1.8 CLASSIFICATION SYSTEM

- HAAS Atlas
- Bouffard TYPE classification program

5.2.1.9 SPECIMEN COLLECTION

- Contemporaneous Specimens
- Identification of machine and typist
- Preservation

5.2.1.10 IDENTIFICATION

- Type-style design
- Character Damage
- Alignment Faults
- Operator Error
- Condition of Ribbon
- Condition of typewriter
- Repairs
- Contemporaneous specimen dating
- Ribbon mechanism fault
- Fiber Transfer (carbon ribbon)
- Operator Characteristics – format

5.3 Health and Safety Hazards

5.3.1 None

5.4 Reading and Practical Exercises

5.4.1 Assignments and Practical Exercises

5.4.1.1 Outline the history of typewriting and the development of the keyboard and typewriter.

5.4.1.2 For each category of typewriter: List and explain the fundamentals of operation, distinguishing features, and class/individual features.

5.4.1.3 Demonstrate suitable examination techniques for the classification of questioned typewriting.

5.4.1.4 Demonstrate suitable examination techniques for the comparison of questioned and known typewriting.

5.4.1.5 Demonstrate suitable examination techniques for the comparison of questioned typewriting and known typewriter(s).

5.4.1.6 Demonstrate suitable examination techniques for carbon ribbon and/or correction tape comparisons/matches.

5.4.2 Complete reference reading as assigned by trainer

5.4.2.1 See Document Examination Reference List- electronically stored

5.5 Evaluation Methods of Training

5.5.1 Successful completion of:

5.5.1.1 Oral examination(s)

5.5.1.2 Practical exercises

5.5.1.3 Written examinations

5.5.2 Successful completion of competency test for handwriting examination

		Method of Assessment			
		Assignments	Written Test	Oral Test	Practical
	5.4.1.1	**X**	**X**		
	5.4.1.2	**X**	**X**		
	5.4.1.3			**X**	**X**
	5.4.1.4			**X**	**X**
	5.4.1.5			**X**	**X**
	5.4.1.6	**X**	**X**		
Benchmark		Trainer dependent	80% +	Pass /Fail	Pass / fail

6.0 Module 4: Printing Processes

6.1 Background and Theory

6.1.1 Introduction

The examination of printing processes involves:

- The identification of individual printing processes
- The identification of security features in documents
- Establishing an authentic or counterfeit document based on printing processes and security features.
- Comparison of questioned and known documents to establish similarities and/or differences in printing processes and security features.

Documents typical of these types of examinations are, but are not limited to, the examination of United States currency, checks, breeder documents, anonymous letters, certificates, identification cards, and credit cards.

6.1.2 Module Purpose

This module will enable trainee document examiners to initially identify different types of printing processes by utilizing laboratory equipment and fundamental examination procedures. The trainee may then establish a foundation and background in printing processes for the purposes of comparisons between questions and known (legitimate) documents.

6.1.3 Pre-requisites

- Introduction to Forensic Document Examination
- Scientific Instrumentation / Laboratory Equipment

6.1.4 Co-requisites

- Paper Examination
- Mechanical Devices
- Typewritten Documents
- Indented Writing
- Ink & Writing Instruments
- Alterations, Obliterations & Additions
- Physical Match
- Dating of Documents

6.1.5 Instrumentation

- Stereo Microscope
- Comparison Microscope (if available)
- Transmitted Light Source
- Video Spectral Comparator (VSC)
- Ultraviolet (Short-wave/Mid-wave/Long-wave).
- Typewriter or Electronic Grids
- Fine/Accurate Measurement Rulers (micrometer)
- Other various detection equipment such as magnetic ink reader, etc.

- Spectroscopy instrumentation such as RAMAN, FTIR may be used in some laboratories.
- Electrostatic Detection Device (EDD).

6.1.6 Training Resources

- Trainer Instruction
- Rochester Institute of Technology "Printing Process ID and Image Analysis for Forensic Document Examiners"
- Laboratory Casework (including administrative and technical review of both past and present printing process examinations).
- SWAFDE and MAFS Cross-Training Programs
- SWAFDE Reference Listing
- SWAFDE Practical Problem library
- ABFDE References
- Printing Process Manufacturers tours

6.2 Objectives, Principles, and Knowledge

6.2.1 Principles and objectives covered during the handwriting module will include the following:

6.2.1.1 GENERAL CONCEPTS

- History of Printing Processes
- Basic Types of Printing Processes
- Secure Documents
- Credit Cards and ID documents
- Counterfeit methods

6.2.1.2 DEFINITIONS

The trainee should maintain a working list of definitions pertaining to printing processes. By keeping such a list, the trainee will be able to articulate the processes and related terms in his or her own words. This will also assist in absorbing important terms and concepts. In addition, the trainee should cite sources and keep a working bibliography. New processes are continually being developed as the printing technologies develop. Therefore, this list can also serve as an on-going resource for printing terminology.

6.2.1.3 CONTACT / IMPACT / PRESSURE PROCESSES*

- Transfer from a raised surface
  - Letterpress
  - Flexography
- Transfer from a recessed surface
  - Gravure
  - Intaglio
- Planar surface
  - Offset lithography
- Transfer through a surface
  - Screen printing
- Dot Matrix

6.2.1.4 NON-CONTACT / NON-IMPACT PROCESSES

- Charge transfer processes
  - Electrophotography (EPG) Ion deposition/electrostatic (toner technology)
  - Magnetography
- Thermal Transfer
  - Thermal fusion
  - Thermal Wax Transfer
  - Dye sublimation
  - Thermal paper
- Ink jet printing
  - Solid Ink Jet

6.2.1.5 EXAMINATION TECHNIQUES

6.3 Health and Safety Hazards

6.3.1 EDD Operation

6.4 Reading and Practical Exercises

6.4.1 Principles and objectives covered during the handwriting module will include the following:

6.4.1.1 Learn printing process terminology and become familiar with various processes

6.4.1.2 Designate periodic intervals to review samples and secure documents microscopically.

6.4.1.3 Demonstrate the various techniques used in the examination of printing processes.

6.4.1.4 Keep updated information and samples on new printing process technology through various sample sources and technical articles.

6.4.1.5 Understand parameters of the scope of printing process examinations by the forensic document examiner and know when to suggest and or consult with printing process experts.

6.4.2 Practical Exercises:

(The following procedures are guideline recommendations only. The examiner may desire to make certain adjustments. Please note that most of the examinations below will require or be facilitated by comparison with a known/genuine secure document.)

6.4.2.1 Create a printing process/counterfeit document worksheet and/or notes.

6.4.2.2 Microscopically examine document(s) to establish type of process used for the document production.

6.4.2.2.1 Examine the document in its entirety

- Note if multiple processes were used.
- Note any flaws or errors in the process, if present.
  - Note whether the color process is black, 3 color, or 4 color.

- Thoroughly examine the document for scan lines or the presence of digitization or pixelation.
- Make the appropriate notations on the worksheet.

6.4.2.2.2 Examine the text

- Note the typography and whether the style is consistent throughout the document.
- Note the type of printing process used for lettering. Also note if this process is consistent throughout the document or if multiple processes are used.
- Check for evidence of enlargement or reduction. Check for security features such as micro printing.
- Various light source examination

6.4.2.2.3 Examination utilizing video spectral comparator equipment (VSC)

- Complete a thorough VSC examination making the appropriate notations
- Compare with a VSC examination with a genuine document. This can also be noted as the control sample. Make the appropriate notations.

6.4.2.2.4 Other illumination examinations

- Oblique lighting
- Back lighting

6.4.2.2.5 Examine the document's substrate.

- Utilize ultraviolet light source to check for the presence of optical brighteners. Paper opacity can be compared with a genuine document utilizing this light source.
- Note substrate thickness by measuring with a micrometer. o Weigh the document.
- Use a pH pen to determine the acidity or alkalinity of the document if the substrate is a paper product. This test is particularly useful to compare color reaction with genuine documents.
- Oblique lighting can be used to examine machine impressions and compare these markings with other documents to determine common source.

6.4.2.2.6 EDD

- May reveal machine markings or other impressions indicative of the process or specific machine used.
- Potential to reveal relevant information to the case

6.4.2.2.7 Toner and/or Ink Jet Examination

- VSC examination.
- Spectroscopy (RAMAN, FTIR)
- Solubility testing.
- Thin layer chromatography.

6.4.2.3 PRACTICAL

Practical studies of printing processes will be the most important component of training. It is suggested that set intervals of time be allocated to periodically review samples microscopically to become familiar with the various printing processes. Printing process samples that are similar should be compared, specifically noting differences and similarities. Further, genuine secure documents of specific relevance to the trainee's document laboratory should be examined. For example, if the laboratory is a state laboratory, it may be of particular relevance to have genuine Driver License samples for comparison purposes. These samples should also be reviewed periodically through microscopic observations.

6.4.3 Complete reference reading as assigned by trainer

6.4.3.1 See Document Examination Reference List- electronically stored

6.5 Evaluation Methods of Training

6.5.1 Successful completion of:

6.5.1.1 Oral examination(s)

6.5.1.2 Practical exercises

6.5.1.3 Written examinations

6.5.2 Successful completion of competency test for printing processes

		Method of Assessment			
		Assignments	Written Test	Oral Test	Practical
	6.4.1.1	**X**	**X**		
	6.4.1.2				**X**
	6.4.1.3				**X**
	6.4.1.4			**X**	
	6.4.1.5			**X**	**X**
Benchmark		Trainer dependent	80% +	Pass /Fail	Pass / fail

7.0 Module 5: Mechanical Devices and Impressions

7.1 Background and Theory

7.1.1 Introduction

In this vast expanding age of technology, new and advanced computer printers have joined former devices, machines or office equipment used to produce images or impressions on documents. By examining characteristics of impressions, printing, or images, the document examiner may be able to determine the following:

- Identify the type, purpose and nature of an impression, printing process or image.
- Classify a possible make and model of device, machine, or printer that produced a document or image.
- Identify whether or not a particular device / machine produced a document or image.

7.1.2 Module Purpose

This module will enable the trainee to develop the knowledge and skills to carry out standard and appropriate forensic examination techniques and determine the features of mechanical devices. By obtaining knowledge of the manufacturing processes of mechanical devices, the trainee will be able to classify, differentiate, and identify the type of machine, or actual machine, used to produce a document.

7.1.3 Pre-requisites

- Introduction to Document Examination
- Scientific Instrumentation / Laboratory Equipment

7.1.4 Co-requisites

- Printing Processes
- Typewritten Documents
- Ink & Writing Instruments
- Paper Examination

7.1.5 Instrumentation

- Stereo Microscope
- Typewriter/Electronic Grids
- Transmitted, UV & IR Light Sources
- Fine/Accurate Measurement Rulers

7.1.6 Training Resources

- Trainer Instruction
- Laboratory Casework
- SWAFDE and MAFS Cross-Training Programs
- SWAFDE Reference Listing
- SWAFDE Practical Problem library
- ABFDE References
- Manufacturers of mechanical devices
- Mechanical devices Merchants (Tours)

7.2 Objectives, Principles, and Knowledge

7.2.1 Principles and objectives covered during the Mechanical Devices and impressions module will include the following:

7.2.1.1 HISTORY AND EVOLUTION

- The History of machine generated documents
  - Checkwriters
  - - Notary seals
  - - Rubber stamps
  - - Writing machines
  - - Price marking devices, adding machines and cash registers
    - Common class characteristics
    - Common individual characteristics

7.2.1.2 PROPERTIES AND MANUFACTURERS OF COMPUTER PRINTERS

- Processes:
  - Impact
  - Dot matrix
  - Single element
- Common class characteristics
- Common individual characteristics

7.2.1.3 PROPERTIES AND MANUFACTURERS OF CHECKWRITERS

- Processes:
  - Impact
  - Non-impact
- Common class characteristics
- Common individual characteristics

7.2.1.4 PROPERTIES AND MANUFACTURERS OF RUBBER STAMPS

- Manufacturing processes
- Types:
  - Hand Stamps
  - Self-Inking Stamps
  - Pre-Inked Stamps
  - Automatic Stamps
  - Hot Stamps
- Common class characteristics
- Common individual characteristics

7.2.1.5 PROPERTIES AND MANUFACTURERS OF SEALS, WRITING MACHINES, LABELING MACHINES, INCLUDING PRICE MARKING DEVICES, ADDING MACHINES, AND CASH REGISTERS.

- Manufacturing processes of seals:
  - Hand - punched
  - Mechanical engraving
  - Computerized engraving
  - Laser engraving
- Types of devices:
  - Impact

- Thermal, non-impact
- Common class characteristics
- Common individual characteristics

7.2.1.6 TONERS, INKS, AND RIBBONS
- Physical properties
- Chemical analysis

7.2.1.7 COLLECTION OF KNOWN SPECIMEN STANDARDS

7.2.1.7.1 EXAMINATION TECHNIQUES
- Light Source
  - Transmitted
  - Oblique
  - Incident
  - Ultra-violet/Infra-Red
- Microscopic
- Measurements
  - Grids
- Physical Characteristics
- Individual defects

7.3 Health and Safety Hazards

7.3.1 EDD Operation

7.4 Reading and Practical Exercises

7.4.1 Assignments and Practical Exercises

7.4.1.1 Outline the history, development, and types of mechanical devices commonly associated with forensic document examination.

7.4.1.2 Explain the general features and characteristics of mechanical devices commonly associated with forensic document examination.

7.4.1.3 *Practical Exercise:* Identify and describe the class characteristics that assist in determining the type of machine used to produce a document.

7.4.1.4 *Practical Exercise:* Obtain known specimens from a mechanical device, then describe the features identifying the actual machine producing the document.

7.4.2 Complete reference reading as assigned by trainer

7.4.2.1 See Document Examination Reference List- electronically stored

7.5 Evaluation Methods of Training

7.5.1 Successful completion of:

7.5.1.1 Oral examination(s)

7.5.1.2 Practical exercises

7.5.1.3 Written examinations

7.5.2 Successful completion of competency test for mechanical devices and impressions examination

		Method of Assessment			
		Assignments	Written Test	Oral Test	Practical
	7.4.1.1	**X**	**X**		
	7.4.1.2	**X**			
	7.4.1.3			**X**	**X**
	7.4.1.4			**X**	**X**
Benchmark		Trainer dependent	80% +	Pass /Fail	Pass / fail

8.0 Module 6: Paper

8.1 Background and Theory

8.1.1 Introduction

Numerous types of paper and paper products are manufactured all over the world and contain varying properties that may distinguish one from another. Some of these can also protect a document from counterfeiting, particularly with the advent of computer imaging, manipulation, and printers. The forensic examination of paper is carried out to establish its source or origin, its authenticity, and possibly its date of manufacture. Additionally, it may be established if two samples of paper were derived from a common source.

8.1.2 Module Purpose

This module will enable the trainee to develop the knowledge and skills to carry out examinations of paper to determine the origin, authenticity, and general properties of paper. By obtaining knowledge of the manufacturing process of paper, the trainee will be able to identify and apply standard and appropriate forensic examination techniques with this type of evidence.

8.1.3 Pre-requisites

- Introduction to Document Examination
- Scientific Instrumentation / Laboratory Equipment

8.1.4 Co-requisites

- Handwriting Examination
- Ink & Writing Instruments
- Physical Match
- Indented Writing
- Alterations and Obliterations
- Dating of Documents
- Preservation and Reconstruction

8.1.5 Instrumentation

- Stereo Microscope
- Electronic Balance
- Micrometer
- Transmitted Light Source
- Fine/Accurate Measurement Rulers
- Chromatography / Spectroscopy Instrumentation (if available)

8.1.6 Training Resources

- Trainer Instruction
- Laboratory Casework
- SWAFDE and MAFS Cross-Training Programs
- SWAFDE Reference Listing
- SWAFDE Practical Problem library
- ABFDE References
- Paper Manufacturers (Tours)

- Paper Merchants (Tours)

8.2 Objectives, Principles, and Knowledge

8.2.1 Principles and objectives covered during the paper module will include the following:

8.2.1.1 EVOLUTION OF PAPER

- The History of paper
- History of paper making machines and processes
- Properties
- Manufacturers

8.2.1.2 THE MANUFACTURING PROCESSES OF PAPER

- Mechanical
- Semi-chemical
- Chemical
- Screening & Cleaning
- Bleaching
- Coating
- Finishing

8.2.1.3 PAPER MAKING EQUIPMENT

- Approach system
- Fourdrinier Wire
- Cylinder Mould
- Dandy Roll
- Flow Box
- Presses
- Reel-up drum

8.2.1.4 PHYSICAL CHARACTERISTICS

- Size / Weight
- Watermarks / security features
- Composition
- Opacity
- Whiteners
- Thickness
- Colors
- Tensile Strength
- Coating
- Texture
- Density
- pH

8.2.1.5 TYPES OF PAPER

- Bonded
- Dissolving
- Calendared
- Thermal

- Wax
- Security
- Coated

8.2.1.6 SECURITY FEATURES IN PAPER

- Watermarks
- Security Fibers/threads
- Planchettes
- Chemical markers
- Iridescent films / luminescent inks

8.2.1.7 EXAMINATION TECHNIQUES

- Light Source
  - Transmitted
  - Oblique
  - Incident
  - Ultra-violet/Infrared
- Microscopic
- Measurements
  - Physical Dimension
  - Weight
  - Thickness
- Physical Characteristics

8.3 Health and Safety Hazards

8.3.1 None

8.4 Reading and Practical Exercises

8.4.1 Assignments and Practical Exercises

8.4.1.1 List and explain the evolution and the manufacturing process involved in the production of paper.

8.4.1.2 List and explain the properties of paper including the identifiable features and the various types of paper manufactured.

8.4.1.3 *Practical Exercise:* Demonstrate the various techniques used in the examination of paper.

8.4.2 Complete reference reading as assigned by trainer

8.4.2.1 See Document Examination Reference List- electronically stored

8.5 Evaluation Methods of Training

8.5.1 Successful completion of:

8.5.1.1 Oral examination(s)

8.5.1.2 Practical exercises

8.5.1.3 Written examinations

8.5.2 Successful completion of competency test for paper examination

		Method of Assessment			
		Assignments	Written Test	Oral Test	Practical
	8.4.1.1	**X**	**X**		
	8.4.1.2	**X**			
	8.4.1.3			**X**	**X**
Benchmark		Trainer dependent	80% +	Pass /Fail	Pass / fail

9.0 Module 7: Ink and Writing Instruments

9.1 Background and Theory

9.1.1 Introduction

Numerous types of ink and writing instruments are manufactured all over the world, and they contain varying properties that may distinguish one from another. The forensic examination of ink is carried out to establish its source or origin, its authenticity, and its date of manufacture and possibly the date of preparation of the examined writing. Additionally, it may be established if two samples of writing were derived from a common source. The specific type of writing instrument used to prepare a writing can also be determined in most instances.

9.1.2 Module Purpose

This module will enable the trainee to develop the knowledge and skills to carry out examinations of ink and ink writing to determine the origin, authenticity, and general properties of the writing. By obtaining knowledge of the manufacturing process of ink and writing instruments, the trainee will be able to identify and apply standard and appropriate forensic examination techniques with this type of evidence or determine that the evidence is appropriate for a more specialized examination by other personnel.

9.1.3 Pre-requisites

- Introduction to Document Examination
- Scientific Instrumentation / Laboratory Equipment

9.1.4 Co-requisites

- Handwriting Examination
- Paper
- Indented Writing
- Alterations and Obliterations
- Dating of Documents

9.1.5 Instrumentation

- Stereo Microscope
- Transmitted Light Source
- Oblique Light Source
- Ultraviolet short / long wave Light Source
- VSC or similar
- Thin Layer Chromatography materials
- Imaging processing software

9.1.6 Training Resources

- Trainer Instruction
- Laboratory Casework
- SWAFDE and MAFS Cross-Training Programs
- SWAFDE Reference Listing
- SWAFDE Practical Problem library
- ABFDE References

- Ink Examination (Workshop)
- Ink Manufacturer (Tours)
- Writing Instrument Manufacturer (Tour)

9.2 Objectives, Principles, and Knowledge

9.2.1 Principles and objectives covered during the ink and writing instruments module will include the following:

9.2.1.1 EVOLUTION OF INK

- The History of ink and writing instruments
- Properties
- Manufacturers

9.2.1.2 THE COMPONENTS OF INK

- Colorants
- Substrate – Matrix
- Additives

9.2.1.3 WRITING INSTRUMENTS

- Ball Pen
- Porous Point
- Fountain Pen (nib)
- Gel Ink
- Pencil

9.2.1.4 PHYSICAL CHARACTERISTICS

- Color
- Line characteristics
- Measurements - Width
- Anomalies
- Infrared characteristics

9.2.1.5 EXAMINATION TECHNIQUES

- Light Source
  - Transmitted
  - Oblique
  - Incident
  - Ultra-violet/Infrared
- Microscopic
- Measurements
  - Physical Dimensions
  - Color
- Physical characteristics
- Chemical characteristics - TLC

9.3 Health and Safety Hazards

9.3.1 None

9.4 Reading and Practical Exercises

9.4.1 Assignments and Practical Exercises

9.4.1.1 List and explain the evolution of Ink and the instruments used to apply ink to paper.

9.4.1.2 List and explain the properties of Ink, including the identifiable features of the various types of writing instruments.

9.4.1.3 *Practical Exercise:* Demonstrate the various techniques used in the examination of ink and other writing instruments.

9.4.2 Complete reference reading as assigned by trainer

9.4.2.1 See Document Examination Reference List- electronically stored

9.5 Evaluation Methods of Training

9.5.1 Successful completion of:

9.5.1.1 Oral examination(s)

9.5.1.2 Practical exercises

9.5.1.3 Written examinations

9.5.2 Successful completion of competency test for handwriting examination

		Method of Assessment			
		Assignments	Written Test	Oral Test	Practical
	9.4.1.1	X	X		
	9.4.1.2	X			
	9.4.1.3			X	X
Benchmark		Trainer dependent	80% +	Pass /Fail	Pass / fail

10.0 Module 8: Physical Match

10.1 Background and Theory

10.1.1 Introduction

A fracture match, or physical match, examination may be conducted on any type of material that exhibits random and non-reproducible fracture or separation. Examples of materials that may exhibit this property are paper, plastic, metal, and glass.

10.1.2 Module Purpose

This module will enable the trainee to develop the knowledge and skills to carry out fracture match examinations to determine whether two or more fragments were at one time joined to form a single object. By obtaining knowledge and understanding the properties of the materials examined, the trainee will be able to identify and apply standard and appropriate forensic examination techniques with this type of evidence.

10.1.3 Pre-requisites

- Introduction to Document Examination
- Scientific Instrumentation / Laboratory Equipment

10.1.4 Co-requisites

- Handwriting Examination
- Ink & Writing Instruments
- Paper Examination
- Printing Processes
- Typewritten Documents
- Mechanical Devices
- Indented Writing
- Line Sequencing
- Reconstruction & Preservation

10.1.5 Instrumentation

- Stereo Microscope
- Hand Magnifier
- Transmitted Light Source
- Contact Stand
- Electrostatic Detection Device
- Imaging Equipment

10.1.6 Training Resources

- Trainer Instruction
- Laboratory Casework
- SWAFDE and MAFS Cross-Training Programs
- SWAFDE Reference Listing
- SWAFDE Practical Problem library
- ABFDE References

10.2 Objectives, Principles, and Knowledge

10.2.1 Principles and objectives covered during the physical match module will include the following:

10.2.1.1 TYPES OF MATERIALS

- Paper
- Tape
- Plastics
- Matches and matchbooks

10.2.1.2 PHYSICAL CHARACTERISTICS OF MATERIALS

- Size / Weight
- Watermarks / security features
- Composition
- Opacity
- Whiteners
- Thickness
- Coloration
- Sizing
- Inclusions
- Tensile Strength
- Coating
- Texture
- Density

10.2.1.3 INDIVIDUAL CHARACTERISTICS OF MATERIALS

- Cut edges
- Torn edges

10.2.1.4 EXAMINATION AND PRESERVATION TECHNIQUES

- Light Source
  - Transmitted
  - Oblique
  - Incident
  - Ultra-violet/Infrared
- Macroscopic
- Microscopic
- Measurements
  - Physical Dimension
- Physical Characteristics
- Known source document as a guide
- Preservation

10.3 Health and Safety Hazards

10.3.1 None

10.4 Reading and Practical Exercises

10.4.1 Assignments and Practical Exercises

10.4.1.1 List and explain the types of materials susceptible to fractures matches.

10.4.1.2 List and explain the physical properties of materials susceptible to fractures matches including the associated identifiable cut or tear patterns.

10.4.1.3 *Practical Exercise:* Demonstrate the various techniques used in the examination and preservation of fracture matches.

10.4.2 Complete reference reading as assigned by trainer

10.4.2.1 See Document Examination Reference List- electronically stored

10.5 Evaluation Methods of Training

10.5.1 Successful completion of:

10.5.1.1 Oral examination(s)

10.5.1.2 Practical exercises

10.5.1.3 Written examinations

10.5.2 Successful completion of competency test for physical match examination

		Method of Assessment			
		Assignments	Written Test	Oral Test	Practical
	10.4.1.1	**X**	**X**		
	10.4.1.2	**X**			
	10.4.1.3			**X**	**X**
Benchmark		Trainer dependent	80% +	Pass /Fail	Pass / fail

11.0 Module 9: Preservation and Reconstruction

11.1 Background and Theory

11.1.1 Introduction

Documents or paper products may be damaged fully or in part, however they can still be examined by using a variety of restoration and preservation techniques. Prior to the examination of damaged documents, adequate preservation techniques must be employed and may be specific to the type of documents: whether burnt or charred, wet or water soaked, and shredded or torn. This handling and preservation may dictate the effectiveness of further examination and results. Restoration and preservation of documents is the treating of the item(s) in an attempt to restore it back to its original form, whereby information can be made visible and possibly deciphered.

11.1.2 Module Purpose

This module will enable the trainee to incorporate the correct techniques and tools to reconstruct damaged document(s), such as burnt or charred, wet or water soaked, and shredded or torn. Adequate preservation and/or reconstruction of the document(s) may allow partial or full recovery of original information or detail.

11.1.3 Pre-requisites

- Introduction to Document Examination
- Scientific Instrumentation / Laboratory Equipment
- Physical Match
- Handwriting Examination
- Ink & Writing Instruments
- Paper Examination
- Printing Processes
- Typewritten Documents
- Indented Writing
- Alterations & Obliterations
- Line Sequencing
- Dating of Documents
- Mechanical Devices

11.1.4 Instrumentation

- Stereo Microscope
- VSC or alternative light source equipment
- Transmitted Light Source
- Photographic Filters
- Humidifying chamber
- Imaging equipment

11.1.5 Reagents

- Glycerin
- Water
- Polyvinyl Acetate
- Micropipettes

- Atomizer
- Scalpel
- Tweezers
- Tray

11.1.6 Training Resources

- Trainer Instruction
- Laboratory Casework
- SWAFDE and MAFS Cross-Training Programs
- SWAFDE Reference Listing
- SWAFDE Practical Problem library
- ABFDE References
- Art Galleries / Libraries / Museums - Conservatories
- State and Federal Archival Departments

11.2 Objectives, Principles, and Knowledge

11.2.1 Principles and objectives covered during the preservation reconstruction module will include the following:

11.2.1.1 DEFINITION OF RESTORATION AND RECONSTRUCTION

11.2.1.2 TYPES OF RESTORATION

- Burnt and Charred
- Wet / Soaked

11.2.1.3 TYPES OF RECONSTRUCTION

- Shredded
- Torn

11.2.1.4 EVIDENCE COLLECTION AND PRESERVATION

- Collection
- Tacky adhesive paper
- Freeze Drying
- Chemical

11.2.1.5 METHODS OF EXAMINATION

- Separation
- Stabilization
  - Freeze drying
  - Encapsulation
  - Polyvinyl acetate application
  - Parylene processing
- Infrared
- Reconstruction
  - Paper tears
- Electrostatic Detection Device
- Oblique Lighting

11.2.1.6 PHOTOGRAPHY

- Traditional
- Digital & Enhancement

11.3 Health and Safety Hazards

11.3.1 EDD Operation

11.4 Reading and Practical Exercises

11.4.1 Assignments and Practical Exercises

11.4.1.1 Explain and demonstrate the process of collecting, preservation and examination of burnt or charred documents.

11.4.1.2 Explain and demonstrate the process of collecting, preservation and examination of wet or soaked documents.

11.4.1.3 Explain and demonstrate the process of collecting, preservation and examination of shredded or torn documents.

11.4.2 Complete reference reading as assigned by trainer

11.4.2.1 See Document Examination Reference List- electronically stored

11.5 Evaluation Methods of Training

11.5.1 Successful completion of:

11.5.1.1 Oral examination(s)

11.5.1.2 Practical exercises

11.5.1.3 Written examinations

11.5.2 Successful completion of competency test for preservation and reconstruction

		Method of Assessment			
		Assignments	Written Test	Oral Test	Practical
	11.4.1.1			**X**	**X**
	11.4.1.2			**X**	**X**
	11.4.1.3			**X**	**X**
Benchmark		Trainer dependent	80% +	Pass /Fail	Pass / fail

12.0 Module 10: Indented Writing

12.1 Background and Theory

12.1.1 Introduction

When sheets of paper are stacked on top of other paper sheets, such as on a pile or in a tablet or spiral notebook, writing or impressions on the top sheet can leave indentations on the paper(s) below it. It is often of value for the forensic document examiner to be able to visualize these indentations.

12.1.2 Module Purpose

This module will enable the trainee to develop the knowledge and skills to examine paper products to enhance, visualize and record visible and latent indentations.

12.1.3 Pre-requisites

- Introduction to Document Examination
- Scientific Instrumentation / Laboratory Equipment

12.1.4 Co-requisites

- Handwriting Examination
- Ink & Writing Instruments
- Paper Examination
- Printing Processes
- Typewritten Documents
- Mechanical Devices
- Alterations & Obliterations
- Line Sequencing

12.1.5 Instrumentation

- Oblique Light Source
- Electrostatic Indentation Device
- Transmitted Light Source
- Imaging equipment for results/observations

12.1.6 Training Resources

- Trainer Instruction
- Laboratory Casework
- SWAFDE and MAFS Cross-Training Programs
- SWAFDE Reference Listing
- SWAFDE Practical Problem library
- ABFDE References

12.2 Objectives, Principles, and Knowledge

12.2.1 Principles and objectives covered during the indented writing module will include the following

12.2.1.1 INDENTATIONS / IMPRESSIONS

- What are indentations / impressions?
- Direct and indirect contact
- Types of impressions:
  - Primary
  - Secondary
  - Multi-generation

12.2.1.2 EXAMINATION TECHNIQUES

- Visible indentations / Side lighting / Recording
- Latent indentations
- How an Electrostatic Detection Device (EDD) works
- How to use an EDD

12.2.1.3 EDD INSTRUMENTATION

12.2.1.3.1 Process

- Function of EDD
- Humidity
- Functionality Testing Tools / Toner Application methods / Record and/or save visualized indentations
- Determine whether primary or secondary
- Try to determine source of the indentations

- Other areas of use
  - Footwear impressions
  - Matching of torn paper edges
  - Sequence of lines
  - Tracings
  - Erasures

12.2.1.4 Safety

- Effect of ozone
- Effect of airborne toner

12.2.1.5 Non-Destructive

12.2.1.6 Effect on Evidence for further forensic analysis (Fingerprinting, DNA, TLC)

12.2.1.7 INTERFERENCE FACTORS

- Immersion in liquid
- Use of cotton or latex gloves
- Size, shape and condition

12.2.1.8 REPORT WRITING

- Documenting examination procedure
- Results and conclusions

12.3 Health and Safety Hazards

12.3.1 EDD Operation

12.4 Reading and Practical Exercises

12.4.1 Assignments and Practical Exercises

12.4.1.1 Explain how indentations are produced, including the different types that can be recovered.

12.4.1.2 *Practical Exercise:* Demonstrate how to evaluate and record visible indentations.

12.4.1.3 *Practical Exercise:* Demonstrate how to visualize, evaluate and record latent indentations.

12.4.1.4 *Practical Exercise:* Discuss and demonstrate reporting techniques, including indentation evidence conclusions.

12.4.1.5 List and explain potential interferences in electrostatic detection device examinations.

12.4.1.6 *Practical Exercise:* List and demonstrate other uses for electrostatic detection device examinations.

12.4.2 Complete reference reading as assigned by trainer

12.4.2.1 See Document Examination Reference List- electronically stored

12.5 Evaluation Methods of Training

12.5.1 Successful completion of:

12.5.1.1 Oral examination(s)

12.5.1.2 Practical exercises

12.5.1.3 Written examinations

12.5.2 Successful completion of competency test for indented writing examination

	Method of Assessment			
	Assignments	Written Test	Oral Test	Practical
12.4.1.1	**X**			
12.4.1.2				**X**
12.4.1.3				**X**
12.4.1.4			**X**	**X**
12.4.1.5			**X**	
12.4.1.6	**X**			**X**
Benchmark	Trainer dependent	80% +	Pass /Fail	Pass / fail

13.0 Module 11: Alteration and Obliterations

13.1 Background and Theory

13.1.1 Introduction

During the course of examinations, it is important for the Forensic Document Examiner to be able to identify alterations on documents. An alteration may be a change made, an addition to, or an obliteration of material on a document. Several methods can be used to identify characteristics that are indicative of alterations.

13.1.2 Module Purpose

This module will enable the trainee to develop the knowledge and skills to carry out examinations and identify characteristics that may indicate an alteration has occurred on a document.

13.1.3 Pre-requisites

- Introduction to Document Examination
- Scientific Instrumentation / Laboratory Equipment
- Handwriting Examination
- Ink & Writing Instruments
- Paper Examination
- Printing Processes
- Typewritten Documents
- Mechanical Devices
- Indented Writing
- Line Sequencing

13.1.4 Instrumentation

- Electrostatic Indentation Device
- Stereo Microscope
- Transmitted, UV, IR, and filtered light source
- Fine/accurate measurement rulers and grids
- Imaging equipment for recording results/observations
- Typewriter/electronic grids

13.1.5 Training Resources

- Trainer Instruction
- Laboratory Casework
- SWAFDE and MAFS Cross-Training Programs
- SWAFDE Reference Listing
- SWAFDE Practical Problem library
- ABFDE References

13.2 Objectives, Principles, and Knowledge

13.2.1 Principles and objectives covered during the alteration and obliterations module will include the following:

13.2.1.1 Types of alterations

- Additions of written material or text
- Changes to written material or text
- Removal of written material or text
- Obliteration of written material or text

13.2.1.2 Characteristics to look for (but not limited to):

- Overwriting
- Multiple writing instruments
- Crowded and/or awkward placement of writing and/or
- printed material
- Paper fiber disturbances
- Presence of opaquing material
- Area(s) of discoloration
- Smearing
- Uneven margins
- Multiple printing processes
- Irregular spacing and alignment, both vertically and horizontally
- Differences in fastening and binding marks
- Inconsistent handwriting features
- Unusual sequence of line intersections
- Type(s) of paper in multi-page documents
- Indentations

13.2.1.3 All characteristics may not be indicative of alterations

13.2.1.4 Examination techniques

- Non-destructive techniques
  - Light source
    - Transmitted
    - Oblique
    - Ultra-violet
    - Infrared reflectance
    - Infrared luminescence
  - Microscopic
  - Measurements
  - Physical dimensions
  - Grids for alignment
  - Indentation examinations

- Destructive techniques: need to record documents before doing
  - Solvents to make paper translucent
  - Solvents to remove opaquing material
  - Physically removing obscuring materials
  - Chemical ink examinations

13.3 Health and Safety Hazards

13.3.1 EDD operation

13.3.2 UV Light operation

13.4 Reading and Practical Exercises

13.4.1 Assignments and Practical Exercises

13.4.1.1 List the basic types of alterations that can be found on documents.

13.4.1.2 List characteristics of alterations that can be found during the examination of documents.

13.4.1.3 Explain why some characteristics may not be indicative of alterations but may occur in the normal preparation, handling and storage of documents.

13.4.1.4 Describe the examination techniques that can be used to identify alterations on documents.

13.4.2 Complete reference reading as assigned by trainer

13.4.2.1 See Document Examination Reference List- electronically stored

13.5 Evaluation Methods of Training

13.5.1 Successful completion of:

13.5.1.1 Oral examination(s)

13.5.1.2 Practical exercises

13.5.1.3 Written examinations

13.5.2 Successful completion of competency test for alterations and obliterations examination

		Method of Assessment			
		Assignments	Written Test	Oral Test	Practical
	13.4.1.1	**X**			
	13.4.1.2				**X**
	13.4.1.3				**X**
	13.4.1.4			**X**	**X**
Benchmark		Trainer dependent	80% +	Pass /Fail	Pass / fail

14.0 Module 12: Line Sequencing

14.1 Background and Theory

14.1.1 Introduction

Since Questioned Documents are composed of a variety of materials ranging from writing ink to printing to xerographic material, it is often important to determine the sequence of use of these different materials. Since the inception of the field this problem has plagued the examiner and has always been considered one of the most difficult problems to offer a consistently accurate assessment.

14.1.2 Module Purpose

This module will enable the trainee to develop the knowledge and skills to carry out examinations of line sequences to determine, if possible, the sequence of preparation of various entries occurring on a single document. By obtaining the appropriate knowledge, the trainee will be able to identify and apply standard and appropriate forensic examination techniques with this type of evidence.

14.1.3 Pre-requisites

- Introduction to Document Examination
- Scientific Instrumentation / Laboratory Equipment
- Handwriting Examination
- Ink & Writing Instruments
- Paper Examination
- Printing Processes
- Typewritten Documents
- Mechanical Devices
- Indented Writing
- Alterations, Obliterations, & Additions
- Indented Writing

14.1.4 Instrumentation

- Transmitted Light Source
- Variable Position light source
- Stereo Microscope
- Scanning Electron Microscopy (SEM) – if available
- Time of Flight Secondary Ion Mass Spectroscopy (TOFSIMS) – if available

14.1.5 Training Resources

- Trainer Instruction
- Laboratory Casework
- SWAFDE and MAFS Cross -Training Programs
- SWAFDE Reference Listing
- SWAFDE Practical Problem library
- ABFDE References

14.2 Objectives, Principles, and Knowledge

14.2.1 Principles and objectives covered during the line sequencing module will include the following:

14.2.1.1 Materials found in Line Sequence Problems

- Paper
- Writing Ink
- Typewriter impressions
- Printing
- Xerographic Imaging

14.2.1.2 Physical Factors effecting Line Sequences

- Paper
- Materials used in "Lines"
- Similarity of materials used
- Time between "Line" preparation

14.2.1.3 EXAMINATION TECHNIQUES

- Light Source
  - Transmitted
  - Oblique
  - Incident
  - Ultraviolet/Infrared
- Microscopic
- Other - chemical
- Physical Characteristics

14.3 Health and Safety Hazards

14.3.1 EDD Operation

14.3.2 UV light operation

14.4 Reading and Practical Exercises

14.4.1 Assignments and Practical Exercises

14.4.1.1 Recognize the different materials used in the preparation of documents and the limitations they pose to Line Sequencing problems.

14.4.1.2 List and explain the characteristics that occur at Line Crossings, which are useful in determining the sequence of lines.

14.4.1.3 *Practical Exercise:* Demonstrate the various techniques used in the examination of Line Sequences.

14.4.2 Complete reference reading as assigned by trainer

14.4.2.1 See Document Examination Reference List- electronically stored

14.5 Evaluation Methods of Training

14.5.1 Successful completion of:

14.5.1.1 Oral examination(s)

14.5.1.2 Practical exercises

14.5.1.3 Written examinations

14.5.2 Successful completion of competency test for line sequencing examination

		Method of Assessment			
		Assignments	Written Test	Oral Test	Practical
	14.4.1.1	**X**	**X**		
	14.4.1.2	**X**			
	14.4.1.3			**X**	**X**
Benchmark		Trainer dependent	80% +	Pass /Fail	Pass / fail

15.0 Module 13: Dating Documents

15.1 Background and Theory

15.1.1 Introduction

The date of preparation of a Questioned Document is one of the most frequently asked questions. Since the materials and processes that are used in the preparation of documents change over time, it is often possible to use these factors to determine the date or time period of preparation of a document. Often the question is not when was this document prepared, but was it prepared when indicated?

15.1.2 Module Purpose

This module will enable the trainee to develop the knowledge and skills to carry out examinations of the various materials present in a questioned document to determine, if possible, the date of preparation of the document. By obtaining the appropriate knowledge, the trainee will be able to identify and apply standard and appropriate forensic examination techniques with document evidence.

15.1.3 Pre-requisites

- Introduction to Document Examination
- Scientific Instrumentation / Laboratory Equipment
- Handwriting Examination
- Ink & Writing Instruments
- Paper Examination
- Printing Processes
- Typewritten Documents
- Mechanical Devices
- Indented Writing
- Line Sequencing

15.1.4 Co-requisites

- Reconstruction & Preservation
- Physical Match

15.1.5 Training Resources

- Trainer Instruction
- Laboratory Casework
- SWAFDE and MAFS Cross-Training Programs
- SWAFDE Reference Listing
- SWAFDE Practical Problem library
- Ink Workshops
- ABFDE References

15.2 Objectives, Principles, and Knowledge

15.2.1 Principles and objectives covered during the dating documents module will include the following:

15.2.1.1 Materials used to prepare Questioned documents

- Paper
- Writing Ink
- Typewriter impressions
- Printing
- Xerographic images

15.2.1.2 Factors used in the determination of age

- Commercial availability of material (reference materials)
- Detection of date markings
- Determination of differences in materials used within a single document
- Determination of changes to materials within a document that indicate the documents age

15.2.1.3 EXAMINATION TECHNIQUES

- Light Source
  - Transmitted
  - Oblique
  - Incident
  - Ultraviolet/Infrared
- Microscopic
- Electrostatic imaging (EDD)
- Other - chemical
- Physical Characteristics

15.3 Health and Safety Hazards

15.3.1 EDD operation

15.3.2 UV light operation

15.4 Reading and Practical Exercises

15.4.1 Assignments and Practical Exercises

15.4.1.1 Recognize the different materials used in the preparation of documents and the characteristics of these materials that allow for the determination of their age.

15.4.1.2 Understand the premise of commercial availability and the concept of date marks.

15.4.1.3 *Practical Exercise:* Demonstrate the various techniques, or an understanding of the techniques, used in the determination of physical or chemical characteristics of the materials used in the preparation of documents.

15.4.2 Complete reference reading as assigned by trainer

15.4.2.1 See Document Examination Reference List- electronically stored

15.5 Evaluation Methods of Training

15.5.1 Successful completion of:

15.5.1.1 Oral examination(s)

15.5.1.2 Practical exercises

15.5.1.3 Written examinations

15.5.2 Successful completion of competency test for handwriting examination

		Method of Assessment			
		Assignments	Written Test	Oral Test	Practical
	15.4.1.1	**X**	**X**		
	15.4.1.2	**X**			
	15.4.1.3			**X**	**X**
Benchmark		Trainer dependent	80% +	Pass /Fail	Pass / fail

16.0 Module 14: Courtroom Procedures

16.1 Background and Theory

16.1.1 Introduction

The final showcasing of forensic document examinations is the presentation of findings in a court of law. Before a trainee can successfully complete a training program, he/she must understand the many facets of courtroom testimony and demonstrate proficiency in such testimony. To this end, the trainee is introduced to real world presentation components through simulated court experience. This training emphasizes systematic and sequential introduction of case materials, display techniques, stress reduction techniques, court system expectations, objectivity and scientific demeanor.

16.1.2 Module Purpose

This module will enable the trainee to develop knowledge and skills in preparing for and addressing court requirements. The trainees will learn court presentation requirements and how to accurately and effectively communicate.

16.1.3 Pre-requisites

- Introduction to Document Examination
- Scientific Instrumentation / Laboratory Equipment

16.1.4 Co-requisites

- Handwriting Examination
- Ink & Writing Instruments
- Paper Examination
- Printing Processes
- Typewritten Documents
- Mechanical Devices
- Indented Writing
- Alterations & Obliterations
- Line Sequencing

16.1.5 Instrumentation

- Audio-visual equipment
- Demonstration Chart Materials
- Image Software (e.g. Photoshop)

16.1.6 Training Resources

- Trainer Instruction
- Courtroom Workshops
- SWAFDE and MAFS Cross -Training Programs
- SWAFDE Reference Listing
- SWAFDE Practical Problem library
- ABFDE References

16.2 Objectives, Principles, and Knowledge

16.2.1 Principles and objectives covered during the courtroom procedures module will include the following:

16.2.1.1 NUMBER OF MOCK COURTS

- Moot Courts to collectively cover the modules, such as:
  - Scientific Instrumentation
  - Handwriting and Signatures
  - Indented writing / impressions
  - Printing processes / mechanical devices
  - Altered documents
  - Daubert / Frye Hearings

16.2.1.2 COMPONENTS OF EXERCISES

- Progress from simple to complex cases
- Stress exerted as needed
- Appropriate court demeanor
- Control response techniques
- Conceptual knowledge
- Core themes

16.2.1.3 CASE PREPARATION

- Chain of custody
- Preservation of evidence
- Procedures and methodology
- Notes and documentation
- Displays/exhibits

16.2.1.4 PRETRIAL PREPARATION

- Review of qualifications
  - Evidence
  - Exhibits
  - Notes and documentation
  - Discovery for defense
  - Deposition procedures

16.2.1.5 COURT COMPONENTS

- Swearing in
- Qualifications
- Voir dire
- Direct examination
- Cross examination
- Ruling of Judge or Jury

16.2.1.6 EVALUATIONS

- Evaluation forms
- Assessment of results

16.2.1.7 EXPECTATIONS

- Growth and improvement in testimonial skills
- Greater understanding of questioning techniques
- Better understanding of opinion levels and how to present
- Understanding of court procedures and requirements of expert witness
- Improvement in display and presentation techniques
- Improved confidence

16.3 Health and Safety Hazards

16.3.1 Stress Management

16.4 Reading and Practical Exercises

16.4.1 Assignments and Practical Exercises

16.4.1.1 List and explain common courtroom procedures for the presentation of the expert witness and his/her testimony.

16.4.1.2 *Practical Exercise:* Discuss and demonstrate the advantages and disadvantages of various types of displays used in handwriting demonstration.

16.4.1.3 *Practical Exercise:* Discuss and demonstrate commonly encountered weaknesses in the testimony of the expert witness.

16.4.1.4 *Practical Exercise:* Explain common techniques used by attorneys to obtain confused or seemingly confused testimony.

16.4.1.5 *Practical Exercise:* Discuss and demonstrate how an expert witness should deal with given stressful situations encountered in the courtroom.

16.4.2 Complete reference reading as assigned by trainer

16.4.2.1 See Document Examination Reference List- electronically stored

16.5 Evaluation Methods of Training

16.5.1 Successful completion of:

16.5.1.1 Oral examination(s)

16.5.1.2 Practical exercises

16.5.1.3 Written examinations

16.5.2 Successful completion of mock court

		Method of Assessment			
		Assignments	Written Test	Oral Test	Practical
	16.4.1.1	**X**	**X**		
	16.4.1.2	**X**		**X**	**X**
	16.4.1.3			**X**	**X**
	16.4.1.4			**X**	
	16.4.1.5			**X**	**X**
Benchmark		Trainer dependent	80% +	Pass /Fail	Pass / fail

17.0 Module 15: Scientific Instrumentation and Laboratory Equipment

17.1 Background and Theory

17.1.1 Introduction

The use of various scientific equipment and laboratory equipment plays an essential role for all document examinations. It is necessary for an examiner to understand the full operating capabilities of each instrument, understand the full range of potential results each instrument may provide, and have a fundamental understanding of the scientific theory or general function of each apparatus.

17.1.2 Module Purpose

This module should be undertaken in the initial part of the program or in conjunction with each relevant examination style module. This module provides a solid foundation of instrumentation and equipment that will be utilized as part of all document examination procedures. This overview of scientific instrumentation and equipment is required to give a comprehensive explanation of each apparatus with respect to use, operating principles, operating potential, and interpretation of results. This is achieved through theoretical and practical instruction, ensuring a clear application involving document examination evidence.

17.1.3 Pre-requisites

- Introduction to Forensic Document Examination

17.1.4 Co-requisites

- Handwriting
- Typewriting
- Printing Processes
- Mechanical Devices
- Paper
- Ink & Writing Instruments
- Dating
- Fracture Match
- Reconstruction & Preservation of Documents
- Indented Writing
- Alterations & Obliterations
- Line Sequencing

17.1.5 Instrumentation

17.1.6 Training Resources

- Trainer Instruction
- Instrument Operation Manuals
- SWAFDE and MAFS Cross -Training Programs
- SWAFDE Reference Listing
- SWAFDE Practical Problem library
- ABFDE References

17.2 Objectives, Principles, and Knowledge

17.2.1 Principles and objectives covered during the scientific instrumentation and laboratory equipment module will include the following:

17.2.1.1 BRIEF OVERVIEW OF ALL INSTRUMENTATION / EQUIPMENT

- Identification & Application
- Location

17.2.1.2 MICROSCOPES

- Microscopy Theory
- Stereo Microscope / Comparison / Compound
- Video/Digital Camera Attachments

17.2.1.3 INDENTATION INSTRUMENTATION

- Theory of use
- EDD
- Oblique Lighting

17.2.1.4 LIGHT SOURCES

- Theory of Light
- Nature of Light & The Spectrum (UV-Visible-IR) o Reflection / Absorption / Transmission o Use of Filters
- Video Spectral Comparator / Equivalent Instrument
-

17.2.1.5 MEASURING DEVICES

- Balance
- Micrometer

17.2.1.6 ANALYTICAL INSTRUMENTATION (If applicable)

- Thin Layer Chromatography (TLC)
- Microspectrophotometer
- Raman Spectrometer
- Scanning Electron Microscope/Energy Dispersive X-Ray (SEM/EDX)
- Fourier Transform Infrared Spectroscopy (FTIR)

17.2.1.7 DIGITAL PHOTOGRAPHY

- Imaging Equipment
- Image Enhancement Software

17.3 Health and Safety Hazards

17.3.1 EDD operation

17.3.2 UV light operation

17.4 Reading and Practical Exercises

17.4.1 Assignments and Practical Exercises

17.4.1.1 Describe the scientific instrumentation or laboratory equipment utilized for each type of examination (modules).

17.4.1.2 Describe the theory of light and Spectrum of light and how it applies to the examination of documents.

17.4.1.3 Explain the theoretical principles of operation and generation of results for each instrument or apparatus.

17.4.1.4 *Practical Exercise:* Demonstrate the operation, care and maintenance, and calibration procedure (if applicable) for each instrument or apparatus.

17.4.2 Complete reference reading as assigned by trainer

17.4.2.1 See Document Examination Reference List- electronically stored

17.5 Evaluation Methods of Training

17.5.1 Successful completion of:

17.5.1.1 Oral examination(s)

17.5.1.2 Practical exercises

17.5.1.3 Written examinations

17.5.2 Successful completion of competency test for scientific instrumentation and laboratory equipment

		Method of Assessment			
		Assignments	Written Test	Oral Test	Practical
	17.4.1.1		**X**	**X**	
	17.4.1.2		**X**		
	17.4.1.3		**X**		
	17.4.1.4				**X**
Benchmark		Trainer dependent	80% +	Pass /Fail	Pass / fail

18.0 Module 16: Cognitive Bias

18.1 Background and Theory

18.1.1 Module Purpose

This module should be undertaken in the initial part of the training program. This module will provide the trainee with an introduction to Cognitive, Contextual, and Confirmation Bias and its role in forensic science. This overview will give the trainee the resources to become familiar with the different types of bias that can affect forensic science. This module will enable the trainee to develop the knowledge to recognize and minimize bias during the testing of document evidence.

18.2 Objectives, Principles, and Knowledge

18.2.1 Module Content

18.2.1.1 Recognition of potentials for Cognitive Bias present during Forensic document examination

18.3 Health and Safety Hazards

18.3.1 None

18.4 Reading and Practical Exercises

18.4.1 Assignments and Practical Exercises

18.4.1.1 Describe the different types of bias that can affect forensic science.
18.4.1.2 Explain how to recognize bias.
18.4.1.3 Describe the steps a forensic scientist can take to minimize bias.

18.5 Evaluation Methods of Training

18.5.1 Successful completion of:

18.5.1.1 Oral examination(s)
18.5.1.2 Written examinations

	Method of Assessment			
	Assignments	Written Test	Oral Test	Practical
18.4.1.1		**X**		
18.4.1.2			**X**	
18.4.1.3			**X**	
Benchmark	Trainer dependent	80% +	Pass /Fail	Pass / fail

19.0 Module 17: Supervised Cases

19.1 Background and Theory

19.1.1 Supervised cases allow the trainer to evaluate the trainee's performance on actual casework.

19.2 Objectives, Principles, and Knowledge

19.2.1 To determine if the trainee can apply their training to actual casework.

19.3 Health and Safety Hazards

19.3.1 None

19.4 Reading and Practical Exercises

19.4.1 Upon successful completion of competency testing and the Quality Manager having reviewed and approved the training documentation. The Trainee will be responsible for the analysis of one case in each subdiscipline under close supervision.

19.4.2 The supervising analyst is responsible for regularly observing the trainee and ensuring they properly perform casework activities including casework documentation, evidence handling, following the analytical method, performing and interpreting test methods and data, and reporting results as set forth in the quality system.

19.4.3 The supervising analyst(s) shall be documented in the case file. Analysis notes for supervised casework will be reviewed by the trainer and documentation of this placed in the case file. Based on the supervised case the onsite trainer will determine if the trainee can work independently or if additional supervised cases are needed.

19.4.4 Upon successful completion of this requirement and the approval of the Quality Manager the trainee can begin independent casework

20.0 Module 18: Technical Review Training

20.1 Background and Theory

Technical review is an important component of the discipline section and the laboratory. The purpose of technical review of casework is to ensure that the conclusions are reasonable and supported by the case examination documentation prior to releasing results to the customer(s)

20.2 Objectives, Principles, and Knowledge

20.2.1 The trainee will gain experience in the technical review of another examiner's casework.

20.3 Health and Safety Hazards

20.3.1 None.

20.4 Reading and Practical Exercises

20.4.1 During the course of the training program, the trainee will develop familiarization with format and terminology used in casework notes and reports.

20.4.1.1 The trainee will compile and read through the reports generated by a qualified examiner that covers a variety of forensic document examination requests. The trainee will discuss the importance of the peer review process with the trainer.

20.4.2 The trainee will technically review as part of the training, another analyst's casework.

20.4.2.1 As the trainee successfully completes and is signed off each module, they will conduct peer review training of all casework completed by the qualified examiner. This is a very important quality assurance component of the discipline section and the laboratory.

20.4.3 The results of each technical review will be evaluated and compared to actual technical review results.

APPENDIX 1: Modules for Document Examination- Sign Off

Module 1 - Introduction to Forensic Document Examination

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Oral Examination: *PASS / FAIL*

Module 2 - Handwriting Examination

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Practical Exercise(s): *PASS / FAIL*
Oral Examination: *PASS / FAIL*
Competency Test: *PASS / FAIL*

Module 3 - Typewritten Documents

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Practical Exercise(s): *PASS / FAIL*
Oral Examination: *PASS / FAIL*
Competency Test: *PASS / FAIL*

Module 4 - Printing Processes

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Practical Exercise(s): *PASS / FAIL*
Oral Examination: *PASS / FAIL*
Competency Test: *PASS / FAIL*

Module 5 - Mechanical Device and Impressions

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Practical Exercise(s): *PASS / FAIL*

Module 5 - Mechanical Device and Impressions cont.

Oral Examination: *PASS / FAIL*
Competency Test: *PASS / FAIL*

Module 6 - Paper

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Practical Exercise(s): *PASS / FAIL*
Oral Examination: *PASS / FAIL*
Competency Test: *PASS / FAIL*

Module 7 - Ink and Writing Instruments

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Practical Exercise(s): *PASS / FAIL*
Oral Examination: *PASS / FAIL*
Competency Test: *PASS / FAIL*

Module 8 - Physical Match

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Practical Exercise(s): *PASS / FAIL*
Oral Examination: *PASS / FAIL*
Competency Test: *PASS / FAIL*

Module 9 - Preservation and Reconstruction

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Practical Exercise(s): *PASS / FAIL*
Oral Examination: *PASS / FAIL*
Competency Test: *PASS / FAIL*

Module 10 - Indented writing

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Practical Exercise(s): *PASS / FAIL*
Oral Examination: *PASS / FAIL*
Competency Test: *PASS / FAIL*

Module 11 - Alterations and Obliterations

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Practical Exercise(s): *PASS / FAIL*
Oral Examination: *PASS / FAIL*
Competency Test: *PASS / FAIL*

Module 12 - Line Sequencing

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Practical Exercise(s): *PASS / FAIL*
Oral Examination: *PASS / FAIL*
Competency Test: *PASS / FAIL*

Module 13 - Dating of Documents

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Practical Exercise(s): *PASS / FAIL*
Oral Examination: *PASS / FAIL*
Competency Test: *PASS / FAIL*

Module 14 - Courtroom Procedures

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Mock Trial: PASS / FAIL

Module 15 - Scientific Instrumentation and Laboratory Equipment

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Practical Exercise(s): *PASS / FAIL*
Oral Examination: *PASS / FAIL*
Competency Test: *PASS / FAIL*

Module 16 - Cognitive Bias

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____
Written Test Grade: _____
Oral Examination: *PASS / FAIL*

Module 17 – Supervised Casework

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____

Module 18 - Technical Review Training

Target Completion Date: _____
Completion Date: _____
Trainee Name/Initials: _____
Trainer Name/Initials: _____