Training Outline for IBIS Technicians: Firearm Cases

1.0 Purpose – The purpose of this procedure is to provide a training program for IBIS Technicians working cases involving firearms in the North Carolina State Crime Laboratory. This program shall provide individuals theoretical background and working knowledge in the areas of firearms and ammunition safety, mechanics, and presentation of evidence in court. Upon completion and final approval, the trainee will be permitted to perform IBIS firearm casework.

2.0 Scope – This training outline shall be followed by all IBIS Technician trainees regardless of experience level.

3.0 Module 1 – General Firearms and Ammunition Overview and Safety

3.1 Objectives: Through completion of this module, the trainee shall have developed and demonstrated knowledge of:

3.1.1 The fundamentals of firearm and ammunition safety.

3.1.2 General safety rules that should be followed when handling firearms in any environment.

3.1.3 Proper firearms and ammunition nomenclature.

3.1.4 The proper techniques for clearing/unloading various types of firearms.

3.1.5 The proper operation and safe usage of the laboratory firing range and bullet recovery equipment.

3.1.6 Lead exposure awareness.

3.2 Reading Assignments

- National Institute of Justice, Firearms Examiner Training, Module 15: Safety https://firearms-examiner.dna.gov
- National Rifle Association, Gun Safety Rules http://training.nra.org/nra-gun-safety-rules.aspx
- Association of Firearm and Tool Mark Examiners (AFTE) Glossary, current edition.
- U.S. Department of Labor, Occupational Safety & Health Administration (OSHA) Regulations: 29 CFR 1910.1025, Toxic and Hazardous Substances – Lead https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=10030
- Firearm Safety Fundamentals www.firearmsid.com
- Firearms Safety Depends on You, National Shooting Sports Foundation (NSSF), 2009
- National Rifle Association, Gun Safety Rules, http://training.nra.org/nra-gun-safety-rules.aspx
- Firearms Safety Training (PowerPoint Presentation)
- Lead Exposure, SBI 2014 In-Service Law Enforcement Firearms Training, Pages 14-16.
- Dutton, G., Firearms Safety in the Laboratory, AFTE Journal, 1997; 29 (1): 37-41.
- Safety with Firearms (Parts 1-3), The American Rifleman, February – April, 1965.

3.3 Exercises

3.3.1 Read the above literature pertaining to firearm and ammunition safety.

3.3.2 List 10 key rules of safe firearm handling, to include the three common fundamental safety rules.

3.3.3 Identify and label firearm and ammunition component diagrams using correct nomenclature.

3.3.4 Demonstrate how to render various types of firearms safe in the laboratory utilizing dummy rounds.

3.3.5 Receive instruction on the safe usage of the laboratory firing range and bullet recovery equipment.

3.3.6 Complete a set of study questions that is reviewed by the Training Officer.

3.4 Evaluation

3.4.1 Successfully complete a written test on topics covered in the reading assignments and exercises.

4.0 Module 2 – Mechanics

4.1 Objectives: Through completion of this module, the trainee shall have developed and demonstrated knowledge of:

4.1.1 The various firearm actions.

4.1.2 The basic steps of firearm operation.

4.1.3 The basic safety systems used by different types and makes of firearms.

4.2 Reading Assignments

- Unit Mechanics Notebook
- AFTE Glossary
- The Gun Digest Book of Firearm Assembly/Disassembly - Part I, Automatic Pistols
- The Gun Digest Book of Firearm Assembly/Disassembly - Part IV, Centerfire Rifles
- The Gun Digest Book of Exploded Firearm Drawings
- NRA Shoulder Arms Assembly
- NRA Handgun Assembly
- NRA Gunsmithing Guide
- Book of Pistols and Revolvers - Smith
- Firearm Manufacturers' Armorer's Manuals in Firearm Reference Library
- Full Auto - AR-15 Modification Manual
- Full Auto - Semi-Auto Uzi Modification Manual
- Full Auto - Semi-Auto MAC 10 Modification Manual
- Full Auto - H & K 94

- Full Auto - M1 Carbine to M2 Modification Manual
- Full Auto - Semi-Auto Bingham AK-22 Modification Manual
- National Institute of Justice (NIJ) Firearms Training Modules (online)
- An Introduction to Forensic Firearms Identification - FirearmsID.com
- Firearms Muzzle Attachments – AFTE Journal (Volume 31, Number 1) Winter 1999

4.3 Exercises

4.3.1 Read the above literature pertaining to mechanics.

4.3.2 Given a list of terms, properly define them as they relate to firearms.

4.3.3 List and describe the cycle-of-fire steps involved in discharging a firearm.

4.3.4 In the following mechanics exercises, the trainee shall be responsible for completing a worksheet(s) for the firearms selected by the Training Officer. The trainee shall be advised on the correct procedure for completing the form at this stage in training and how to access these forms in Forensic Advantage (FA).

4.3.4.1 Disassemble and assemble a given set of firearms.

4.3.4.2 Complete at least four (4) IBIS firearm data entries in FA for single action and double action semiautomatic pistols.

4.3.4.3 Complete at least two (2) IBIS firearm data entries in FA for rifles.

4.3.4.4 Complete at least two (2) IBIS firearm data entries in FA for automatic firearms.

4.3.4.5 Test Fire Firearms:

4.3.4.5.1 At least two (2) test fires shall be collected from each of the firearms in the mechanics exercises. Before any firearm is fired, it shall be examined and approved by the Training Officer or designee.

4.3.4.5.2 The test fires for each firearm shall be placed in an appropriate package. The following information shall be placed on the outside of each package

1. FA/FR Number
2. State Crime Laboratory Case number
3. Manufacturer
4. Caliber
5. Serial Number (if available)
6. Model (if available)
7. Item #
8. Test Fires - ammunition type and assigned designation
9. Initials of Forensic Scientist

4.3.5 Discuss possible result statements and conclusions with the Training Officer or designee.

4.4 Evaluation

4.4.1 Successfully complete a written test on topics covered in the reading assignments and exercises.

4.4.2 Given a practical problem concerning IBIS entry, successfully test fire, select item for IBIS entry, compile notes, and write a report on the findings.

5.0 Module 3 – Presentation of Evidence in Court

5.1 Objectives: Through completion of this module, the trainee shall have developed and demonstrated knowledge of:

5.1.1 Court related terminology and the various steps in the court process.

5.1.2 General understanding of typical qualifying questions during courtroom testimony.

5.2 Reading Assignments

- Lesson Plan, "Court Preparation Training for NC State Crime Laboratory Personnel"
- Perspectives in Expert Testimony Literature, West Virginia University
- Arrest, Search, and Investigation in North Carolina [Chapter 6 – Rules of Evidence in Criminal Cases] - Robert L. Farb
- AFTE Code of Ethics
- Ethics in Forensic Science Literature, West Virginia University

5.3 Exercises

5.3.1 Read the above literature pertaining to presentation of evidence in court.

5.3.2 Given a set of terms related to the presentation of evidence in court, correctly define all terms.

5.3.3 Prepare a set of qualifying questions and associated responses. Review these with the Training Officer or designee.

5.3.4 The trainee shall attend court and observe the testimony of senior Forensic Scientists as available.

5.3.5 Update Curriculum Vitae.

5.4 Evaluation.

5.4.1 Complete a mock case.

5.4.2 Successfully complete a round table based on the analysis of one or more competency cases.

5.4.3 Successfully complete a final IBIS training written test.

6.0 Records

- Training file
- Training checklist

7.0 Attachments – N/A

Revision History		
Effective Date	Version Number	Reason
09/22/2017	1	Original Document