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## Forensic Audio Training Program

**1.0 Purpose** – The purpose of this training program is to outline the steps necessary to become qualified to perform audio analysis cases.

### 2.0 Scope

**2.1** The Forensic Audio Training Program is designed in a series of blocks. Each block is composed of several assigned tasks. When the trainee completes a task to the satisfaction of the Supervising Forensic Scientist, the Supervising Forensic Scientist shall initial the line next to that task on the checklist. Upon the trainee's successful completion of each block of instruction, the Supervising Forensic Scientist shall write a memo to the Forensic Scientist Manager, trainee, and the trainee's training file to document completion of the instruction. Blocks of instruction may be worked concurrently.

**2.2** The following courses shall be considered additional sources of education in the field of forensic audio analysis. Attendance in these courses shall be considered for Forensic Scientist trainees and qualified Forensic Scientists as scheduling, availability, and Laboratory resources allow.

**2.2.1** Forensic Audio Filtering and Enhancement – taught by Digital Audio Corporation.

**2.2.2** Advanced Forensic Audio Training – taught by Digital Audio Corporation.

### 3.0 Training Modules

**3.1 Block I - General Laboratory Procedures** - The objective of this block of instruction is to familiarize the trainee with the general practices and procedures used at the North Carolina State Crime Laboratory.

**3.1.1** The Trainee shall study the procedures of the State Crime Laboratory.

**3.1.2** The Trainee shall successfully complete a written examination to demonstrate his or her knowledge of Laboratory procedures.

**3.2 Block II - General Knowledge of Audio Analysis** - The object of this block of instruction is to ensure the Forensic Scientist trainee in forensic audio analysis can demonstrate knowledge necessary for casework.

**3.2.1** The trainee shall demonstrate knowledge of the physical characteristics of various types of media that may be encountered in casework (e.g., standard cassette tape, microcassette tape, CD, Minidisc, and NT2 audiotape).

**3.2.2** The trainee shall demonstrate knowledge of the audio components and connections used with the audio analysis workstation.

**3.2.3** The trainee shall demonstrate knowledge of the use of the audio patch panels. This includes understanding the use of patch panels to connect equipment used during examinations.

**3.2.4** The trainee shall successfully complete a written examination on the equipment and media encountered in forensic audio analysis.

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- 3.3 Block III - Policies and Procedures** - The objective of this block of instruction is to give the trainee a working knowledge of the policies and procedures used in the forensic examination of audio evidence.
- 3.3.1** The Trainee shall locate and collect articles on forensic audio analysis and create a personal library.
  - 3.3.2** The Trainee shall study the Digital Evidence Section audio forensics technical procedures. The Trainee shall understand the procedures and the consequences to evidence if the procedures are not followed.
  - 3.3.3** The Trainee shall complete additional reading (e.g., equipment guides, manuals, articles, OSAC/SWGDE publications and best practices, and books) as assigned by the Supervising Forensic Scientist and demonstrate an understanding of the materials.
  - 3.3.4** The Trainee shall successfully complete a written examination on the policies and procedures of Forensic Audio Analysis.
- 3.4 Block IV – Use of Forensic Advantage** - The objective of this block of instruction is to allow the trainee to begin working with Forensic Advantage (FA).
- 3.4.1** The trainee shall gain a working knowledge of how to document case observations on the case notes form.
  - 3.4.2** The trainee shall gain a knowledge of information stored in FA.
  - 3.4.3** The trainee shall shadow a qualified examiner on the recording of analytical data and use of FA.
  - 3.4.4** The trainee shall complete a practical case entry in FA.
- 3.5 Block V - Duplication of Audio** – The objective of this block of instruction is to allow the Trainee to work with audio evidence under supervision of a trained Forensic Scientist.
- 3.5.1** The Trainee shall assist in preparing audio evidence for examination under the direct supervision of a qualified Forensic Scientist.
  - 3.5.2** The Trainee shall demonstrate knowledge of the verification procedures used in the Laboratory. The Trainee shall be proficient in verifying equipment used during analysis.
  - 3.5.3** The Trainee shall be proficient in duplicating various types of audio media into a digital format.
  - 3.5.4** The Trainee shall successfully complete a practical examination to demonstrate knowledge of the procedures for duplicating forensic audio evidence as written in the audio forensics technical procedures.
- 3.6 Block VI – Equipment and Software Validations and Verifications** - The objective of this block of instruction is to ensure that the trainee has developed the skills necessary to be validate or verify new hardware or software.

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- 3.6.1** The trainee shall perform a validation on a piece of forensic software or hardware. The trainee shall select a previously approved forensic software or hardware to perform a validation.
  - 3.6.2** The trainee shall draft a validation report and memorandum. The validation report and memorandum shall be graded based on thoroughness, steps taken, adherence to technical procedures, and the results.
  - 3.7 Block VI - Competency Tests** - The objective of this block of instruction is to ensure that the trainee has developed the skills necessary to perform independent Forensic Audio casework.
    - 3.7.1** The trainee shall be required to pass a written examination to demonstrate the knowledge of forensic audio analysis needed in everyday casework.
    - 3.7.2** Each trainee shall be required to pass a final practical examination that includes conducting a forensic audio examination on audio that has been prepared or selected for this examination. The trainee shall enhance the pertinent audio to the satisfaction of the Supervising Forensic Scientist.
    - 3.7.3** The trainee shall observe another forensic scientist providing court testimony. If no scientist is providing court testimony, it is permissible for the trainee to view previous testimony from an online source (example: WRAL). The trainee shall document the name of the forensic scientist observed and date of testimony.
    - 3.7.4** The trainee shall successfully complete a moot court that is based on the work done in the practical examination. The Forensic Scientist Manager may substitute an oral review board for a Forensic Scientist who testifies in another discipline.

<b>Revision History</b>		
Effective Date	Version Number	Reason
09/21/2020	3	Updated issuing authority, 3.6 Removed casework review, inserted 3.4 use of FA block, added written test for 3.1, removed 3.5.3 meeting to discuss accreditation procedures, updated header, 3.6.3 – added court testimony observation