Empirical Observations
Theoretical Knowledge

There is an extensive history of empirical observations supporting the use of friction ridge impressions to identify individuals. Layered behind these empirical observations is theoretical causation: developmental noise. Attendees will learn how developmental noise during fetal development imparts the discriminating power to the friction ridge arrangements. Attendees will prepare and verbally answer questions to lay foundation for the acceptance of fingerprint evidence based on empirical observations and biological theory.

Twin Studies
Statistical Models

Scientists have attempted to measure the uniqueness of fingerprints using minutia for well over a century. Attendees will learn about model making in science and recommended elements of a robust fingerprint model. Attendees will learn about selected twin fingerprint studies, historical fingerprint models, pattern and minutia distribution studies, and modern statistical models. The basic premises and limitations of selected models will be introduced. Attendees will prepare and verbally answer questions to lay foundation for the acceptance of fingerprint evidence without a

Performance of Trained Analysts

Vision Science
Fingerprint Expertise

The human visual system is complex, but it does follow basic rules and it does learn when a person is repeatedly exposed to visual stimuli (i.e. fingerprints). Attendees will be introduced to the basic concepts in human vision, theories of experts and expert performance, studies regarding visual expertise in fingerprints, and the explicit and implicit learning that takes place during a training program. Attendees will prepare and verbally answer questions to lay foundation for why an untrained person (e.g. a jury) lacks the requisite expertise to interpret or make inferences

Error Rate Studies
Quality Management Systems

Recent studies have demonstrated the reliability (and variability) of fingerprint experts’ decisions. Attendees will be introduced to selected error rate studies, including PCAST’s use of confidence intervals to estimate rates. Attendees will also discuss the checks and balances within a quality management system that enhance analyst performance. Attendees will prepare and verbally answer questions to lay foundation for the acceptance of fingerprint evidence based on the accuracy and reliability of the analysts and the aspects of a quality management system that
Evolve Forensics
Emerge with Knowledge

Essentials of Latent Print Examination: Establishing Admissibility

Introduction
There are two primary domains of knowledge that support the validity of latent print discipline: 1) science demonstrating the discriminating power of friction ridge impressions and 2) science demonstrating trained analysts are capable of providing accurate conclusions. While many analysts learn this information as part of training, they often struggle articulating these complex concepts to the trier of fact.

This intense five-day course will review key concepts and research underlying both domains that can be used to support latent print admissibility. The instructor will facilitate discussions and mentor attendees. Attendees will devise questions and answers covering the concepts and practice testimony. A few comparison exercises are provided to reinforce the academics. Additionally, a court case illustrating real-world application of these testimony methods is woven throughout the week. The content of the course is organized into four blocks that logically build on one another.

What to Expect
Approximately 4 weeks prior to class, attendees will receive an email link to a folder on the Evolve Forensics OneDrive account. In this folder, attendees will find the source material (except for textbooks) that provide the basis for the lecture content. This is provided in the event attendees would like to review specific topics prior to the course. This is NOT required reading for the course; it is simply reference material. This same material is provided to each attendee at the end of class on a thumb drive. The instructor will introduce or summarize most of this reference material throughout the week. Attendees will also receive a notebook containing a print-out of the lecture slides.

The class will be divided into teams of 3 - 5 people per team, depending on class size. After each major block of instruction, each team will be in command of writing testimony-style questions and answers covering the concepts from each block. Each person will ultimately be responsible for “testifying” to one or more concepts within each block; however, the development of the questions and answers is shared. Team mates can help each other find the best way to articulate concepts to a jury.

The questions and answers are captured in a word processing program (similar to Microsoft Word) on a tablet provided by the instructor. After the groups complete their questions and answers at the end of each day, the instructor reviews the questions and answers in the evening and provides feedback to each group the following morning. There will be one hour for the groups to review feedback, consult with the instructor and other attendees, and finalize the questions and answers for the block.

After the feedback session, each group “takes the stand” as a group. The instructor will ask the group their own questions and each member will practice verbalizing the answers to their assigned questions. Groups are permitted to take the tablet to the stand and read the prepared responses. Why? The goal of this class is not to memorize answers, but to encourage attendees to think about good questions and answers and practice saying the words.

At the end of the week, each group has a complete set of testimony-style questions and answers that cover the entirety of the material in this course; the groups then share. This means each person walks out of class with: 1) reference material for the course, 2) instructor slides summarizing the course content, and 3) multiple ways to approach testimony for the various concepts supporting the admissibility of latent print evidence. Well worth the price of admission and approved for IAI training credits!

About the Instructor
Alice (Maceo) White has a Bachelor of Science in Biology from the University of Alaska, Anchorage. She has worked in latent prints since 1997 and was the manager of the Latent Print Detail of the Las Vegas Metropolitan Police Department for 12 years. Alice served on the Scientific Working Group on Friction Ridge Analysis, Study, and Technology from 2001-2014, the NIST Expert Working Group on Human Factors in Latent Print Analysis from 2008-2011. Alice currently serves as a member of the OSAC Friction Ridge Subcommittee and is a Technical Assessor for ANAB. Alice has published multiple articles and lectured throughout the United States and beyond.

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