Hands-On Fingerprint Recovery

Course Purpose / Objectives

Introduction To Fingerprints: During this period the student will learn the importance of “reading” the crime scene in an attempt to locate evidence fingerprints. He/She will learn the three major types of evidence prints as well as the importance of collecting elimination (ink) prints from the victims. Training will include the “what is it and how is it put on the surface”, as well as various factors affecting the quality and stability of the fingerprint being left upon the surface of the item touched.

Developing and Recovering Fingerprints: During this period the student will understand the value of the evidence fingerprint as well as various conditions affecting the proper development and recovery of these prints. He/She will learn preferred methods of processing many of the most common items of evidence found in day to day crime scene investigations, including items which many times do NOT respond well to common “black powders”. He/She will be introduced to the need for and the principals of photographing both visible and processed latent fingerprints. Both available light and alternate light sources will be discussed as well as implementation of reversal procedures required when photographing mirrored/reversed prints. The student will become familiar with various fingerprint patterns and the characteristics needed for identification. The student will have the opportunity to view photographs of developed fingerprints on many “Often Thought Unprintable” items such as bricks, rocks, rubber tire tread, rough textured vinyl and plastics, wet objects, feathers, charcoal briquets, bagels, shell casings, etc.

Practical Exercises / Hands-On: For the remainder of the day, the students will be developing and recovering prints from items which they have chosen to bring for practice. They will have the opportunity to use various types of equipment as well as various methods of lifting the developed prints. They will use standard black powder, black magnetic powder, silver black powder, silver black magnetic powder, copper, silver, or gold metallic powders (used on surfaces too slick to provide acceptable results with standard black powders, various “colored” powders, Magnuclei, etc. At the end of this session, students will develop a latent print on a piece of textured upholstery vinyl and prepare it for later recovery. Recovery will be completed the following morning.

Fluorescent Fingerprint Development: During this “hands-on” segment, students will learn how to develop fingerprints, using fluorescent powders and alternate light sources, and will learn factors to be considered when choosing between fluorescent and standard powders. Alternate light sources ranging from 8 watts through 100 watts and protective “barrier” eyewear will be provided for student use. The student will have the opportunity to learn proper usage of various colors of fluorescent
Powder, both magnetic and non-magnetic.

**Fingerprint Photography:** An alternate light source and digital camera will be available for student use in the recovery of previously developed fluorescent prints.

**Photo Presentation:** Students photographs, saved to disk, will be presented by the instructor. Using Adobe Photoshop, Joe will demonstrate “allowable” photographic enhancements. Upon completion of this session, students will be provided their disks for future practice of the techniques demonstrated.

**Cyanoacrylate (Super Glue) Processing:** During this period, the instructor will cover the principles involved in super glue fuming, safety considerations, and the variables involved in the success of this procedure. He will provide detailed suggestions of methods which may be employed to fabricate basic fuming equipment, (from inexpensive and throw away items) providing substantial monetary savings, over commercial equipment, to the student or to his/her department. Students will be separated into groups and each group will process several items, using both “home made” and commercial fuming equipment. These projects will be retained for chemical enhancement during the final four hour session. **SAFETY WILL BE EMPHASIZED.**

**Chemical Processing:** During these periods, the instructor will demonstrate and the students will have the opportunity to work “hands on” with several chemical methods.

**Laboratory Type Equipment Available:** Ductless Forensic Workstation, Cyanoacrylate “Controlled Heat” Fuming Chamber, Vacuum Fuming Chamber, Fume Extractor, Humidifier, and DFO Development Chamber.

**Chemicals Being Presented:** Amido Black, Hungarian Red, Aqueous Leuco Crystal Violet, Sudan Black, Adhesive Side Powder, Crystal Violet, DFO (1,8-Diazofluoren-9-one) Silver Nitrate, Ninhydrin, Ninhydrin Fixative, Iodine Fuming, Iodine Print Enhancement, Small Particle Reagent, Physical Developer, Basic Yellow Dye, Ardrox, and Rhodamine 6 G.

**IMPORTANT - PLEASE READ**

This is a hands-on training course. Please bring a minimum of 50 items to fingerprint in class.

**Instructor**

Joseph E. Fyffe

Joseph E. Fyffe, a retired 29 year veteran with the Indianapolis Police Department and served as the Evidence Coordinator. Joe is an active member in the International Association for Identification (IAI) and a Certified Law Enforcement Instructor. Joe has written three (3) training manuals and courses in Practical Crime Scene Photography, Practical Introduction To Crime Scene Investigation and How To Develop, Lift and Document Fingerprints that has been taught throughout the United States.

**Dates:**

June 9-11, 2015

**Location:**

Columbus, Ohio Division of Police Training Academy - 1000 North Hague Ave., Columbus, OH 43204-2121
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