

Abstract

From training members of the U.S. military to preparing forensic practitioners who work in State crime labs, NFSTC educates professionals on the front lines of ensuring public safety. Some NFSTC training involves a blended learning approach to maximize class preparation, assessment and results. Complementary training using realistic scenarios allows trainees to practice skills in real-world situations. Examples of NFSTC's blended learning approach to training include:

- Pattern Evidence Training
- Essentials of Crime Scene Investigation Training
- Specialized Military Training

The NFSTC Online Learning System (NOLS) serves as a virtual learning community that includes program information, course content, resources, discussion forums, communication tools, surveys and autograded testing.

Blended Learning at NFSTC

NFSTC offers a number of programs using a blended learning approach that incorporates web-based, distance learning with classroom-based, instructor-led training. Before and after each classroom session, participants complete online work to master basic subject area knowledge or to reinforce and apply skills learned through classroom instruction, discussions, demonstrations and hands-on activities.

Pattern Evidence

To date, NFSTC has delivered three pattern evidence training programs, all of which employ a blended learning approach. Training in the areas of latent print, tenprint and footwear/tire track examination has been successfully delivered to 55 entry-level pattern evidence examiners. Another cohort group of latent print trainees will conclude training in June 2010, and training programs in footwear/tire track and tenprint examination are scheduled to begin in the fall of 2010, thus providing training opportunities to 45 additional practitioners.

These training programs have been offered at no cost to entry-level examiners. The selection process included the successful completion of an online visual acuity test. Each program combined classroom training, online distance learning and practical exercises, in conjunction with mentorbased training conducted at the trainees' home agency. The programs were designed to help prepare trainees to successfully meet the challenges of certification examinations provided by the International Association for Identification (IAI).

A cohort group was led through sequential course offerings in each discipline. The web-based activities in each blended learning course were administered via NFSTC's Online Learning System (NOLS).



Latent Print Examiner Training Program

This comprehensive, 11-course Latent Print Examiner Training program provided each trainee with more than 380 hours of classroom-based training. An additional 6 to 10 hours of online pre- and post-coursework was assigned for each of the 11 courses, providing an average of 88 hours of web- and practical-based instruction. Five 2-week classroom-based sessions were held at the NFSTC facility in Largo, FL. Between sessions, trainees completed online reading assignments, exercises and assessments in preparation for the next classroom-based training session. During the two years that the program has been offered, NFSTC has trained a total of 33 participants in the latent print examination discipline.



Latent Print Curriculum

Course	Торіс	Class Hours
1	Introduction to the Science of Friction Ridge Classification and Individualization	40
2	Palm Print Techniques	24
3	Courtroom Testimony Techniques – Success Instead of Survival	24
4	Fundamentals of Latent Print Examination	16
5	Friction Ridge Automation and Collection of Known Standards	40
6	Ridgeology Concepts in Friction Ridge Examination	40
7	Latent Print Development Techniques	40
8	Digital Imaging Concepts for Latent Prints	40
9	Current Issues in the Science of Friction Ridge Individualization	40
10	Complex Latent Print Examinations	40
11	Fingerprint Expert Witness Testimony and Program Synopsis	40
Online Coursework	Pre- and Post-Course	88
	Approximate hours per trainee	472





Tenprint Examiner Training Program

The four-course *Tenprint Examiner Training* program provided each trainee with 160 hours of concentrated classroom-based training. An additional 20 hours of online pre- and post-coursework was assigned. Classroom-based sessions were held at the NFSTC facility in Largo, FL. Between sessions, trainees completed online reading assignments, exercises and assessments in preparation for the next classroom-based training session. NFSTC has trained a total of 17 examiners in the tenprint examination discipline.

Blended Learning and Scenario-based Training — Efficient, Effective and Timely

Blended Learning

Tenprint Curriculum

Course	Торіс	Class Hours
1	Classification and Capture of Known Standards	40
2	Friction Ridgeology Concepts	40
3	Fundamentals of ACE-V Methodology in Friction Ridge Individualization	40
4	Advanced Comparison Techniques and Friction Ridge Expert Witness Testimony	40
Online Coursework	Pre- and Post-Course	20
	Approximate hours per trainee	180



Footwear/Tire Track Examiner Training Program

The five-course Footwear/Tire Track Examiner Training program provided each trainee with 200 hours of concentrated classroom-based training. An additional 100 hours of online pre- and post-coursework was assigned. Classroom-based sessions were held at the NFSTC facility in Largo, FL and included site visits to both footwear and tire manufacturing plants. Between sessions, trainees completed online reading assignments, exercises and assessments in preparation for the next classroom-based training session. NFSTC has trained 20 practitioners to date in this forensic science discipline.

Footwear / Tire Track Curriculum

Course	Торіс	Class Hours
1	Collection, Documentation and Preservation of Footwear and Tire Track Impression Evidence	40
2	Comparison Techniques for Footwear Impressions	40
3	Comparison Techniques for Tire Track Impressions	40
4	Footwear and Tire Track Case Studies	40
5	Courtroom Testimony and Mock Trials	40
Online Coursework	Pre- and Post-Course	100
	Approximate hours per trainee	300



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Essentials of Crime Scene Investigation

Essentials of Crime Scene Investigation is designed to introduce law enforcement personnel to the fundamental principles of crime scene investigation, including techniques used to recover a variety of high-value items of evidence. Eligible participants must have less than three years of experience in crime scene investigation.

Theoretical information and hands-on practical exercises presented throughout the program provide participants with the knowledge, skills and techniques required to recognize, document, collect, preserve and transmit physical evidence for analysis. The program is delivered as a blend of 16 hours of prerequisite web-based, theoretical instruction, followed by a threeday, hands-on, instructor-led session at NFSTC's training facilities.

The online curriculum consists of two courses: Introduction to Crime Scene Investigation and Introduction to Crime Scene Photography, as well as relevant reading materials, supplemental resources and exercises. The Introduction to Crime Scene Investigation course provides theory, background and recommended guidelines for the identification, documentation and collection of biological, trace, latent print, footwear and tire track, tool and tool mark, and firearm evidence. The Introduction to Crime Scene Photography course covers camera settings, lighting and effective crime scene photography techniques.

In order to attend the subsequent scenario-based training, participants must achieve 80% mastery of the material on a comprehensive assessment delivered during online instruction.

NFSTC Online Learning System (NOLS)

NFSTC delivers the online training portion of blended and distance learning programs via the NFSTC Online Learning System (NOLS), a standards-based learning management system. NOLS serves as a passwordprotected online community linking the instructor with trainees, as well as trainees with fellow trainees. All prerequisite course work resides on NOLS and is available to the instructor, trainees and agency supervisors throughout the program at no cost.

NOLS contains program details that identify required training activities, learning objectives, comprehensive course content, communication tools and discussion boards, links to relevant reading materials and supplemental resources, as well as an overall assessment of key concepts presented throughout the program. When possible, practical exercises are presented, completed, scored and graded online. NOLS is also used to conduct and track the results of participant surveys.

The online environment provides many benefits to stakeholders, including best value for training delivery, collaborative learning environments, consistent content, secure access and randomized testing capabilities. In addition, robust reporting features provide comprehensive and customizable aggregate and individual reports.

NFSTC's online learning system meets NIJ's guidelines for accessibility (Section 508), as well as content interoperability specifications and standards (Sharable Content Object Reference Model – SCORM). NFSTC is experienced in developing and delivering standards-based materials, as evidenced by the delivery of two NIJ projects: Firearm Examiner Training and Collecting DNA Evidence at Property Crime Scenes.

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Scenario-based Learning







Essentials of Crime Scene Investigation

Participants are required to complete online coursework, assignments and a comprehensive assessment prior to attending the onsite practical instruction. After the trainee has acquired the requisite background knowledge and theory, the instructor-led training provides participants with the opportunity to practice these approaches under the supervision of an instructor certified by the International Association for Identification (IAI). The three days of hands-on classroom training culminates with two mock crime scene practical exercises. Trainees have the opportunity to apply principles of crime scene investigation in a controlled environment, with immediate feedback provided at the conclusion of each exercise.

The 40 hours of Essentials of Crime Scene Investigation training is recognized by the IAI Crime Scene Certification Board as an approved crime scene course of instruction. During 2010, NFSTC will offer 16 sessions, resulting in the training of a total of 232 crime scene investigators.

Specialized Military Training

NFSTC provides Site Exploitation (SE) training to U.S. military personnel. An intensive techniques course that encompasses several forensic disciplines, SE training is designed to prepare warfighters for in-country material and intelligence gathering opportunities. Using scenario-based training supplemented by classroom instruction, participants gain proficiency and hands-on experience. In addition to acquiring investigative techniques, trainees learn best practices for identifying, handling and collecting items of evidentiary value. Service members learn to recognize the intelligence value of evidence while gaining an understanding of basic forensic analysis. Thus far, NFSTC has delivered eight 10-day classes, the first of which began in the fall of 2008.



Upcoming Course Offerings for 2010-2011

Forensic Sciences: An Overview for Medicolegal Death Investigators Pattern Evidence: Footwear/Tire Track Examiner Training Pattern Evidence: Tenprint Examiner Training

Additional information about upcoming NFSTC workshops, conferences, training events and symposia is available at the NFSTC Meetings and Event Portal: http://www.nfstc.org/meetings.

For more information, please contact Jennifer Claiborne at 727-549-6067, ext. 155 or Jennifer. Claiborne@nfstc.org.

For information about other NIJ-sponsored training programs, visit the NIJ's Office of Justice Programs web site at http://www.ojp.usdoj.gov/nij/training/welcome.htm.

Online Training Comments

I thought this was a very beneficial part of the training. It was nice to be able to read and learn at my own pace. I was able to get a very good understanding of the information, and I did learn many things. Now, I will be able to take the knowledge I have learned and apply it both to the upcoming training as well as to my actual job.

The NOLS was very helpful. It would be a lot more difficult to try to learn and understand the basics that were presented online. I feel that now, when I arrive to the hands on training portion, I will be ready to try the techniques I learned.

I have never cared much for online type prerequisite work but I enjoyed doing this. There was a lot of time to do it and the information is relevant. I think this course did prepare me for the onsite portion and I definitely feel better after completing it.

I feel more prepared now for the practical and classroom training after taking the online portion.

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