



The National Forensic Academy,
Phillip Jones, February/March 2007

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In an otherwise serene East Tennessee valley, people detonate automobiles, ignite houses, and bury corpses in clandestine graves. These events happen regularly here – three times a year – as the National Forensic Academy (NFA) hones the skills of crime scene investigators with simulated crimes.

Jarrett Hallcox, the NFA's program manager, says that the O.J. Simpson trial triggered events that led to the creation of his institution. In the fall of 2000, Phil Keith, who served as Chief of the Knoxville Police Department at the time, had been concerned about the mishandling of evidence during the Simpson trial. He approached the University of Tennessee with a proposal for a training program that would raise the level of professionalism and standardize crime scene investigation.

Since 2001, the academy has offered ten-week, intensive education sessions in January, May, and September. "There are not a lot of places where an individual can go for soup to nuts training," Hallcox says. Admission can be highly competitive; the NFA limits class size to 16 students. To meet the basic requirement for entry into the program, an applicant must be an investigator or crime scene technician currently employed by a law enforcement agency.

"Whether you are a veteran or new," says Hallcox, "there's nowhere else that you can go to be immersed for ten weeks." Program participants do get submerged in a multitude of investigative techniques, such as bloodstain pattern analysis, firearm and toolmark identification, DNA analysis, latent fingerprint processing, death investigation, trace evidence study, arson investigation, and forensic ballistics (Figure 1).





Figure 1. Reconstructing a mock crime from blood spatter.
Courtesy of the National Forensic Academy.

FROM THE CLASSROOM, TO THE FIELD, TO HELL (SCENES)

Students spend about 40 percent of their time in classroom and lab activities. Although the syllabus covers certain essential topics, details vary from session to session.

“We have an organic class,” Hallcox says. “Each class is different. Each class has new opportunities.”

These opportunities arise from the students’ varied experiences and knowledge, as well as new ideas that instructors infuse into their classes. “Our instructors are practitioners in the field,” says Hallcox, “so they run into new ways to collect evidence and process evidence, and they introduce these at the academy.” Students also have the opportunity to learn about cutting-edge forensic technology under development at nearby Oakridge National Laboratories.

During the first three weeks, instructors teach crime scene management methods, crime scene photography, and techniques for collecting impression evidence. Field training exercises, which make up the bulk of the academy’s program, begin during the third week. At this time, students use their crime scene management skills to work a mock crime scene, searching for and collecting planted evidence, and preserving the scene with photos and sketches (Figure 2). The mock crime scenes get more complicated from then on.

In the following weeks, students observe how houses and cars burn and then learn methods of evidence collection and preservation at the scene of a fire. A certified bomb technician sets up mock crime scenes involving a vehicle explosion and the effects of a pipe bomb (Figure 3). In another scenario, students document and analyze staged bloodstain evidence in a mock bloody crime scene. And then, there’s the Body Farm.



Figure 2. Gathering evidence at a mock crime scene.
Courtesy of the National Forensic Academy.



**Figure 3. NFA students examine the effects of a bomb.
Courtesy of the National Forensic Academy.**

“Without a doubt, the most interesting experience at the academy was during the week of Forensic Anthropology,” says NFA graduate Mark H. Hanf, a detective with the Seattle Police Department/CSI Unit. “We were able to work at the University of Tennessee’s Anthropology Research Facility, also known as the Body Farm,” he says. “There is no other place like it!” Hanf is correct. The facility is the only one of its kind in the world.

Located behind the University of Tennessee Medical Center, the Outdoor Anthropological Research Facility covers little more than two acres. Over 25 years ago, world-renowned forensic anthropologist Dr. William Bass started the facility to study the processes and timing of postmortem decay. The results aid investigators to establish the time-since-death of human remains. Corpses, left under trees, submerged in water, or buried underground, typically decompose through a 12-month cycle. Afterwards, the skeletons are collected, measured for a forensic database, and stored in the Anthropology Department’s depository, one of the world’s largest skeleton collections.

Use of the facility has expanded beyond its original purpose. Today, the Body Farm aids in the development and testing of new forensic technologies, serves as a site to train cadaver dogs and their handlers, and provides a singular opportunity for National Forensic Academy students.

At the Body Farm, Hanf says, students “put the lessons we learned into practice by conducting bone scatter and body recovery exercises.” The bone scatter search illustrates how animals and weather disperse the remains of a decomposing body. Several months before a class arrives, faculty members scatter bones, shell casings, pieces of clothing, and other evidence. Students typically need about eight hours to meticulously search the grounds, mark locations of evidence, photograph, and bag their findings. In the body recovery exercise, students must locate a clandestine grave with “evidence” helpfully left by a previous class.

Before graduating, students investigate an elaborate mock crime scene that incorporates a number of elements from the lessons. These have become known as “Hell Scenes” (Figure 4).

In July 2005, students worked on an elaborate Hell Scene based on an ill-fated drug deal. Author and academy benefactor Patricia Cornwell arranged for a helicopter to drop an aircraft fuselage 150 feet onto an open field. On the ground, the staff detonated a briefcase bomb on the plane and conjured up a suicide bomber. Academy faculty had collaborated with Josh Wolcott, a graduate assistant in the University of Tennessee School of Art sculpture program, to create the unique, life-like dummies that populated the wrecked plane and that participated in the staged suicide bomb scenario. These dummies contain plaster bones and ordinance gelatin, normally used to reproduce tissue consistency in ballistic tests.

One of the academy’s forensic training dummies starred in a 2006 Hell Scene. This time, the faculty used a helicopter to drop a dummy from several hundred feet. Students examined the hapless dummy to learn the probable effects of such a fall on the human body (Figure 5). In a wooded area, the students searched for simulated bodies lying in shallow graves and hunted evidence, including fingerprints, shoe prints, tire tracks, bullet holes, weapons, and bloodstains (Figure 6).



Figure 4. A student looks for fingerprints during a 2006 Hell Scene exercise. Courtesy of the National Forensic Academy.



Figure 5. Students examine a dummy released from a helicopter during a 2006 Hell Scene exercise. Courtesy of the National Forensic Academy.



Figure 6. Students map a burial site during a 2006 Hell Scene exercise. Courtesy of the National Forensic Academy.

RIPPLE EFFECTS OF NFA TRAINING

After ten rigorous weeks capped with a Hell Scene, what does a graduate take back to work?

"I feel that no matter how small or large a department that an individual comes from, or how much experience that they may have," says Hanf, "each NFA graduate is guaranteed to walk away with both the knowledge and various techniques that will assist them in their work." Hanf says that the academy not only changed his own approach to crime scene analysis, but also changed the way that his department conducts business.

"Prior to my graduation from the NFA," he says, "the Seattle Police Department depended on the use of all of its detectives to be able to provide the expertise in the processing of major crime scenes." After Hanf returned from the academy, his department decided to create a dedicated crime scene division. Hanf used his academy experience to help his department to develop the Crime Scene Investigations Unit. The specialized division, he says, not only fosters expertise in crime scene processing, but also allows "all of the other detectives to have more time in conducting their normal follow-up responsibilities and to quickly track down potential leads in a case."

To date, the Duluth Police Department has four academy graduates. "[We] know that we will be able to work through most any situation," says NFA graduate Lieutenant Eric Rish. "I also see us as a great resource," he says, "for our department as well as the region."

"It was truly ten weeks of skill building and networking," Rish says about his academy experience. He brings up an important point. Students not only meet expert instructors, who they consult later on, but also law enforcement professionals from varied organizations. The NFA's students include police officers, sheriff's deputies, FBI agents, U.S. Army Criminal Investigation Division agents, state troopers, and Texas Rangers.

Another NFA success story flourishes across the country. The Georgia Bureau of Investigation has sent 17 Special Agents to the academy. Two more agents planned to attend the January 2007 class.

"The Georgia Bureau of Investigation," says GBI Director Vernon M. Keenan, "has incorporated the National Forensic Academy as basic training for all our Crime Scene Specialists." Their academy graduates also attend annual retraining sessions. "We believe it is in our interest,"

Keenan says, "to provide those agents who perform crime scene work on a daily basis with the most current and innovative skills available." Keenan says that NFA training supports an academy graduate's expert credentials when testifying in court, and benefits law enforcement personnel who did not get to attend the NFA. The academy program, he says, "has allowed the GBI to utilize the Crime Scene Specialists to train our basic agent classes and provide additional on the job training to the agents whenever they are exposed to a crime scene." NFA graduates also provide training in crime scene skills to the state's prosecuting attorneys in continuing education programs.

Lieutenant Warren Hamlin of the Knoxville Police Department's Criminal Investigations/Forensic Unit says that his organization has greatly benefited by having ten NFA graduates. Increased efficiency is one advantage of the academy's program. "We are able to communicate and work together, having the same knowledge and training," says Hamlin. The NFA graduates also have expanded the evidence collection and processing services available to the department's officers and investigators.

"Everyone that has gone to the training," Hamlin says, "has been able to bring something back to everyone else in the unit." Like Keenan, Hamlin sees academy graduates pass on their NFA experiences. "Our graduates not only teach and help each other with new skills," says Hamlin, "but others in our department as well." NFA graduates instruct new officers on crime scene preservation and offer training to experienced officers and investigators during annual in-service classes. Hamlin's Forensic Unit also provides classes to the Knoxville Police Department's Citizen Police Academy, as well as numerous community and school groups throughout the year. "We try to pass on our knowledge of crime scene investigation to as many as possible," he says.

Hailing from almost every state in the country, NFA graduates take their academy experiences back to their organizations. In doing so, they help to realize Hallcox's vision of the NFA: "We are standardizing practices of the proper collection, preservation, and submission of evidence collected at a crime scene."

Enhancing professionalism in crime scene analysis generates its own ripple effect. "Because of the enhanced skills of our Crime Scene Specialists and their attendance at the National Forensic Academy," Keenan says, "we have provided our customer base, the law enforcement agencies of Georgia, and therefore the citizens of Georgia, with the best possible crime scene resource available."

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