Crime Scene Investigation

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Third Edition

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Dedication

To all the CSIs, evidence techs, investigators, and students who are committed to crime scene investigation and processing, we owe you a debt of gratitude. You are indeed preserving the scenes where victims can no longer provide testimony; you are the voice of the victims, the experts who identify, collect, and preserve physical evidence and present it to our courts in order for justice to prevail. Thank you for your service and your commitment to life-long learning as technologies advance. This third edition is dedicated to your service. Thank you for your perseverance.

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Acknowledgments

We owe so much appreciation to the many contributors to this book; they have worked decades upon decades to discover the techniques that are contained in this volume. It is a massive task to bring all that expertise from across the nation into one textbook that is used by many universities and organizations to educate the CSIs, evidence techs, and investigators of the future. We would be remiss if we did not mention the undying support each of us has received from our families as we worked to complete this third edition of *Crime Scene Investigation.* So, to all our family members, we love you and will never forget those endless hours spent away from you while we compiled this book!

Jackie

Larry

Mickey

Ed

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Fire Marshal, Irmo Fire District

Jeff Allen joined the Irmo Fire District (South Carolina) and has accumulated more than 1,500 hours of training in the fire/arson investigation field, including courses at the National Fire Academy in Maryland and the FBI Academy in Quantico, Virginia. Serving in his current position as a police-certified fire marshal enables Allen to conduct full investigations from scene arrival to arrest and prosecution within his 27-square-mile jurisdiction. Allen teaches components of the two-week basic fire/arson investigation course to fire and police officers as offered through the SC State Academy and various other investigative and management classes throughout the United States when requested. He is a contributor to Chapter 9.

William M. Bass, Ph.D.

Forensic Anthropologist, The University of Tennessee (Emeritus)

Bill Bass is a world-renowned forensic anthropologist and founder of the Outdoor Anthropological Research Facility (more commonly known as the "Body Farm") at the University of Tennessee (UT) in Knoxville. For more than 40 years, Bass taught anthropology to students and law enforcement officers across the nation and around the world. Every state in the union employs forensic anthropologists who studied under the tutelage of Bass. As Professor Emeritus, Bass resides in Knoxville, and coauthored the Jefferson Bass series of books. He also teaches a Time Since Death seminar for the National Forensic Academy in Knoxville and was one of the first individuals honored as a Diplomat by the American Board of Forensic Anthropologists. His impact on the discipline of forensic anthropology is immense, as evidenced by the existence of one of the largest modern skeletal collections in the world, which is housed in UT's William Bass Skeletal Collection. Bass has

played a prominent role in hundreds of death investigations including the Noble Georgia Crematory cremains investigation. In 2011, the William M. Bass Forensic Anthropology Building at The University of Tennessee was opened as the result of the many years of work and fundraising by Dr. Bass to provide students with state-of-the-art facilities. He is a contributor to Chapter 14.

Diane Bodie

Crime Scene Investigator, South Carolina Law Enforcement Division (retired)

Diane Bodie is retired as a senior agent with the South Carolina Law Enforcement Division (SLED), where she was assigned as a crime scene investigator. Her career spans more than 35 years, including 6 years at the FBI and 26 years with SLED. She now works as an investigator for the Richland County Sheriff's Office and serves as a national consultant and facilitator in the area of impression evidence and fingerprint classification. She collaborated with the National Center for Biomedical Research and Training on forensic course development and teaches for the Amber Alert program. Diane served as a member of the Disaster Mortuary Operational Response Team (DMORT) for several years. She is a contributor to Chapters 4 and 5.

Arthur Bohanan

Police Specialist, Knoxville Police Department (retired)

Retired Police Specialist Arthur Bohanan has spent more than 45 years of his life dedicated to the study of impression evidence. His research and work focus on the physical characteristics of children's fingerprints and how they differ from adult fingerprints and on the invention of a machine that aids in the development of fingerprints on the bodies of deceased victims. Bohanan began his career in the fingerprint unit at the FBI; then he became a police officer for 25 years at the Knoxville Police Department in Tennessee. He holds a patent to the CBC fingerprint device, and he currently teaches Amber Alert and criminal investigative techniques to law enforcement officers nationwide. Bohanan is certified by the International Association of Identification as a latent print examiner and senior crime scene analyst, and he devoted hundreds of hours working at Ground Zero while he was a member of the Disaster Mortuary Operational Response Team (DMORT) after the September 2001 attacks. He was also deployed to work in Louisiana after Hurricane Katrina devastated the area in 2005. Bohanan is currently working with Carson Newman College to establish another research facility to study the effects dead bodies have on the environment. He is a contributor to Chapter 4.

Karen Berka Bruewer, M.S.

Forensic Scientist and Consultant, KMB Forensics

Karen Bruewer is a forensic scientist specializing in the examination of physical evidence and testing evidence for the presence of bodily fluids that can yield DNA samples for analysis. She worked for a number of years at the Indiana State Police Crime Laboratory and provided training to law enforcement officers across the country on DNA analysis. Bruewer was also a consultant for the University of Tennessee and assisted in the development of curricula that is being taught nationwide. Currently, she is the owner of KMB Forensics, a consulting firm, and teaches forensics at a local college in Van Wert, Ohio. She is a contributor to Chapter 6.

James Claude Upshaw ("Jamie") Downs, M.D.

Forensic Pathologist

Jamie Downs is coastal Georgia's first regional medical examiner. He has been continuously employed as a medical examiner and consultant in forensic pathology since 1989 and was Alabama's state forensics director and chief medical examiner from 1998 to 2002. Downs graduated from the University of Georgia in 1983. He completed Peace Officers Standards and Training at the Southwest Alabama Police Academy. He received his medical degree and residency training in anatomic and clinical pathology and his fellowship in forensic pathology from the Medical University of South Carolina. The latter included a rotation through the Metropolitan Dade County Florida (Miami) Medical Examiner Department and internship at the FBI's Behavioral Sciences Unit in Quantico, Virginia. He is board certified in anatomic, clinical, and forensic pathology. Downs has lectured extensively in the field of forensic pathology and has presented at numerous national and international meetings in the fields of anatomic and forensic pathology. He is a consultant to the FBI Behavioral Science Unit in Quantico, Virginia, having authored four chapters in their manual on *Managing Death Investigation*, and was primary author of the FBI's acclaimed *Forensic Investigator's Trauma Atlas*. He has authored several books and chapters in the fields of forensic pathology and child abuse, and contributed to Chapter 13 of this book. Areas of special interest include child abuse and police use of force. He serves on the Forensic Committee of the International Association of Chiefs of Police, as well as the boards of the American Board of Medicolegal Death Investigators and Medical/Investigational Advisory Board of the Sudden Unexplained Death in Childhood Program.

Jeff Fuller

Bomb Technician (retired)

Jeff Fuller is a graduate of the University of South Carolina who retired after 35 years of law enforcement service. Fuller received advanced bomb training with the FBI, ATF, Israel National Police, and British Ministry of Defense. For 20 years, he worked as a Bomb Technician at the South Carolina Law Enforcement Division (SLED) and retired at the rank of Lieutenant while serving as commander of SLED's nationally recognized bomb squad.

As Chairman of the National Bomb Squad Commanders Advisory Board, Fuller worked closely with the FBI and the FBI Bomb Data Center in certifying bomb technicians, accrediting bomb squads, and setting standards for all the bomb squads in the United States. Fuller is now a consultant, specializing in IEDs, Civil War Ordnance, and corporate security issues. He is a contributor to Chapter 9.

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Heidi Harralson is a board-certified forensic document examiner through the Board of Forensic Document Examiners (Diplomate) and the National Association of Document Examiners (CDE). She is also a certified graphologist through the American Handwriting Analysis Foundation. She has been a certified handwriting expert since 1994. She has testified in both civil and criminal cases in the United States and internationally. She has degrees in the behavioral sciences, handwriting science, and forensic document examination and a certificate as a forensic/crime scene technician. She is a published author and has conducted original research on the ink chemistry of gel pens, graphic disturbance, and motor control disorders and forgery. She is the author of *Developments in Handwriting and Signature Identification in the Digital Age*, published by Anderson Publishing. She is a contributor to Chapter 11.

Jimmie Hester

Tennessee Highway Patrol (retired)

Jimmie Hester was the special agent in charge of the Criminal Investigation Division of the Tennessee Highway Patrol. He retired from his 33-year law enforcement career in August 2005, and is currently working as the law

enforcement liaison for Tennessee LoJack Corporation. Hester led the development of the Auto Theft Division for the Tennessee Highway Patrol and over the years has investigated thousands of criminal cases involving vehicles, heavy equipment, chop shops, interstate property thefts, and other related crimes. He has lectured and taught for numerous national and regional training academies as well as state and federal agencies and authored the *Trailer Identification Manual* distributed nationwide to law enforcement agencies. Together with Patricia Hester, he presents training seminars to agencies and professional organizations nationwide. Hester and Hester are adjunct instructors for the National Forensic Academy at the University of Tennessee and have trained hundreds of criminal investigators on crime scene investigation, interview and interrogation, and crime related to vehicles and cargo trailers. He is a contributor to Chapter 12.

Patricia Hester

Tennessee Highway Patrol (retired)

Patricia Hester retired from the Tennessee Highway Patrol and has been instrumental in developing and delivering training across the United States for motor vehicle law enforcement officers. She specializes in vehicle identification and recovery, odometer fraud, title and driver's license fraud, and vehicle homicide. She has 27 years of experience in the Criminal Investigations Division and is past president of the International Association of Auto Theft Investigators. Together with Jimmie Hester, she presents training seminars to agencies and professional organizations nationwide. Hester and Hester are adjunct instructors for the National Forensic Academy at the University of Tennessee and have trained hundreds of criminal investigators on crime scene investigation, interview and interrogation, and crime related to vehicles and cargo trailers. She is a contributor to Chapter 12.

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South Carolina Farm Bureau Insurance Company's
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Rusty Horton is the field supervisor for the South Carolina Farm Bureau Insurance Company's Special Investigations Unit (SIU). During his tenure with the Farm Bureau, Horton has specialized in the area of fire origin and cause investigations. Horton has 25 years of experience in the fire investigation field, conducting both public and private sector fire investigations. He holds designations as an IAAI Certified Fire Investigator and a NAFI Certified

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Michelle Hudson

Former Agent with the South Carolina Law Enforcement Division

Michelle Hudson is a former Special Agent with the South Carolina Law Enforcement Division where she has worked in fire investigations including response to the scene of arson fires and fires where fatalities have occurred. Hudson completed advanced and specialized training in fire and arson investigations including courses through the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) and the South Carolina Fire Academy. She is a contributor to Chapter 9 and assisted in the development of the third edition of this book.

Hudson received her undergraduate degree in Criminal Justice and Sociology from Charleston Southern University. She is also a graduate of the South Carolina Criminal Justice Academy. She is a member of the South Carolina International Association of Arson Investigators (SCIAAI).

T. Paulette Sutton

University of Tennessee Medical Center (retired)

Paulette Sutton retired as the assistant director of Forensic Services at the Regional Forensic Center in Memphis, Tennessee. Her academic appointments at the University of Tennessee (UT) Memphis include associate professor of Clinical Laboratory Sciences and instructor in the Colleges of Medicine and Nursing. She has been a practicing forensic scientist for the Division of Forensic Pathology at UT Memphis since 1977 and specializes in bloodstain pattern analysis and crime scene reconstruction. Sutton also serves on the faculty of the National College of District Attorneys, National Science Foundation, University of Arkansas Criminal Justice Institute, National Forensic Academy, Northwestern University School of Law, and the University of North Texas. She is a member of the FBI Laboratory's Scientific Working Group on Bloodstain Pattern Analysis, the Forensic Science Editorial Review Board for CRC Press, and the International Association of Bloodstain Pattern Analysts. Honors include the Lecturer of Merit Award and Distinguished Faculty Award from the National College of District Attorneys and the Outstanding Service Award from the FBI. She is a contributor to Chapter 7.

Jeffrey G. Phillips

Winston Salem (NC) Police Department

Jeffrey G. Phillips is employed by the Winston Salem (North Carolina) Police Department. Prior to relocating to North Carolina he was employed with the Washington County (Tennessee) Sheriff's Office, which was the first local law enforcement agency to have a computer forensics examiner on staff. Phillips is currently serving as an Information Systems Analyst with the police department; he also serves as a technical adviser to the entire department. Phillips graduated from East Tennessee State University in 2006 with a B.S. in Computer Science and Information Technology and received his M.A. in Criminal Justice from East Tennessee State University in 2010. He has been in law enforcement for more than 29 years and has served as patrolman, patrol supervisor, and corrections officer. Phillips has received specialized training in computer forensics, and he provided electronic crime scene support for the sheriff's office. He worked closely with the Federal Bureau of Investigation's CART unit. Phillips served as adjunct faculty in the Computer Science and Criminal Justice Departments at Northeast State Technical Community College (Blountville, TN), where he designed the Computer Forensics course. He has spoken at community and state seminars on Internet security, ID theft, and social networking. He is an advocate for establishing a closer bond between computer scientists and criminologists because of the advancement of technology that is occurring at an exponential rate. He is a contributor to Chapter 10.

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Digital Assets

Thank you for selecting Anderson Publishing's *Crime Scene Investigation*, third edition. To complement the learning experience, we have provided a number of online tools to accompany this edition. Two distinct packages of interactive digital assets are available: one for instructors and one for students.

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FOR THE INSTRUCTOR

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ADDITIONAL RESOURCES

For a more in-depth course experience, we suggest the following supplemental books:

Crime Scene Investigation Case Studies, by Jacqueline T. Fish and Jonathon Fish (ISBN: 9781455731237/ $39.95 US): http://store.elsevier.com/product.jsp?isbn=9781455731237&pagename=search

- Learn crime scene investigation through original case studies that show you how to process and document a criminal investigation from first response through to sending a report to the prosecutor's office.
- Get up to speed on the state-of-the-art investigative techniques employed in the cases.
- Practice your investigative and report writing skills with the "Your Turn" chapter.
- Develop your critical thinking skills with questions that explore the nature of the case, the conclusions drawn, and alternative outcomes.

Criminalistics Laboratory Manual, by Elizabeth Erickson (ISBN: 9781455731404/$27.95 US): http://store.elsevier.com/product.jsp?isbn=9781455731404&pagename=search

- Original crime scene scenarios engage students, drawing them into the forensic scientific process
- Practical, hands-on crime scene processing activities with clear, detailed instructions for how to perform each laboratory exercise
- Laboratory objectives, key terms, review questions, and a glossary of terms keep the student focused on what's important
- No forensic science lab required – alternative materials and equipment are suggested if a science lab is not available

CHAPTER 1

Introduction: The CSI and Forensic Investigation

KEY TERMS

Biological evidence
Chain of custody
Circumstantial evidence
Corpus delicti
Crime scene investigator (CSI)
Direct evidence
Forensic anthropologist
Forensic evidence
Forensic nurse
Forensic scientist
Modus operandi (MO)
Physical evidence
Transient evidence

What You Will Learn

This chapter sets the stage for the aspiring CSI as well as offers an opportunity for seasoned professionals to update their knowledge on various facets of the CSI profession. An introduction to various subspecialty areas related to forensics is included to validate the many scientific and practical aspects physical evidence adds to criminal investigations.

INTRODUCTION

> "You only get one chance to do it right the first time, so you'd better do it right. In short, if you think of it—do it—or have a good reason why you didn't. Because if you don't, someone—who gets paid considerably more than you and by the hour—will ask why you didn't. And a jury will be watching."
>
> **—James C. Upshaw Downs**

Reconstruction of a crime scene is essential in determining the events that took place prior to, during, and after a criminal act has occurred. Physical and biological evidence will play a crucial role in linking the suspect to the victim

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and the location of the crime as well as providing support or contradictions of witness/victim/suspect recollections of the incident. An accurate and objective crime scene search yields the "story" told by the evidence so that it is reasonable and convincing to a jury. **Forensic evidence** is used to provide impartial facts and is often referred to as the "silent witness."

The **crime scene investigator (CSI)** plays an important role on the collaborative team that includes the lead detective, the medical examiner, the prosecutor's office, and the forensic scientists at the crime laboratory. Depending on the type of physical or biological evidence and the examinations that are performed, a number of scientists and technicians may be involved in the analysis of the evidence. It is highly recommended that CSIs contact and meet crime lab personnel so that they establish a professional relationship and feel comfortable in calling the lab when seeking expert advice for dealing with the unusual situations that will be encountered at crime scenes. This is a two-way street, because oftentimes the forensic scientist will have questions that can best be answered by the CSI who collected and submitted the forensic evidence being examined.

America's criminal justice system continues to evolve as new technologies and advanced forensics analysis become accepted in the courtroom. The veracity of the technology and subsequent examination results all hinge on the procedures that are practiced at the crime scene—where the chain of custody begins.

Every crime scene is different, and although a standardized set of procedures must be followed at every location by the CSI, experience and observation will assist in developing a strategic and operational plan for processing the area. Proper scene security will ensure integrity and reduce the possibility that evidence will be altered, destroyed, or go undetected by the CSI during the crime scene search. (See Figure 1.1.)

FIGURE 1.1
A crime scene investigator with the Denver Police Department places evidence markers next to the Hummer limousine in which Denver Broncos cornerback Darrent Williams was shot and killed while riding inside. Two other people in the vehicle were also shot in what police called a drive-by shooting. Bullet holes can be seen in the door and to the left of the door, and the rear passenger window is shot out. *AP Photo/Ed Andrieski.*

The actions of the first officer on the scene and subsequent emergency responders prior to the arrival of the CSI must be documented and communicated to the detectives and other investigators as work on the scene progresses. The identification, collection, and preservation of physical and biological evidence must be completed in an unbiased and objective manner so as to ensure that in the final analysis (which occurs in the courtroom) the jury receives untainted and unquestionable forensic evidence as the jurors seek to find the truth and render a fair verdict.

Items that may or may not have evidentiary value must be identified, collected, preserved, and examined under the strict guidelines of the criminal rules of evidence. Proper evidence collection is one of the most important components of a criminal investigation and prosecution. Physical and biological evidence may link a suspect to a crime or prove someone's innocence. The job of a CSI is to process the crime scene without bias, letting the evidence speak for itself.

MAJOR GOALS OF A CRIME SCENE SEARCH

- Recognition and identification of forensic evidence
- Collection and proper preservation of the evidence
- Reconstruction of the crime
- Assisting detectives in forming a theory about the crime

THE ROLE OF THE CRIME SCENE INVESTIGATOR IN FORENSIC SCIENCE

"Forensic science" begins with the effective identification, documentation, collection, and preservation of physical and biological evidence at the crime scene (see Figure 1.2). The evidence is then subjected to scientific analysis in the crime laboratory and the results of the examinations yield forensic evidence for consideration by the court. Ultimately, the evidence will be presented as proof that a past event occurred (a crime was committed) and will prove the identification of the perpetrator. There will be two versions of the event: the prosecution's allegations and the defendant's story. A trial is conducted to allow the jury to determine which version is a correct depiction of the events leading up to the incident and the identity of the participants. The job of the CSI is to properly recognize, identify, collect, and preserve those pieces of evidence that begin the process known as justice. The CSI must present a true and accurate representation of the crime scene to the court, remaining objective and unbiased throughout the proceedings. The court will weigh the value of the evidence and determine guilt or innocence.

FIGURE 1.2
A grid excavation of a clandestine grave.

CSIs are responsible for two of the four steps in the admissibility of physical and biological evidence for consideration by the court (recognition and collection; see Box 1.1). The knowledge, skills, and abilities of CSIs are invaluable

BOX 1.1 FOUR MAJOR FACTORS THAT DETERMINE THE VALUE OF FORENSIC EVIDENCE

1. **Recognition**—The CSI must have the knowledge and understanding to recognize potential items of physical and biological evidence located at the crime scene.
2. **Collection**—Utilizing the appropriate skills and following accepted protocols to gather and preserve the physical and biological evidence.
3. **Testing Procedures**—The application of acceptable scientific procedures to analyze the physical and biological evidence.
4. **Courtroom Presentation**—Qualifications of the witnesses to provide objective reports on the forensic analysis of the evidence.

to the final determination of the facts. CSIs must be highly trained and able to conduct objective and unbiased crime scene searches if the vital information available at a crime scene is to be accepted by the trial judges and juries. Forensic evidence leads to the development of the linkages among the victim, perpetrator, and the scene of the crime.

Jobs and Descriptions

CSI

Everyone you ask knows what the most popular meaning of the three letters *CSI* are—crime scene investigator. Thanks to the public's appetite for crime-related television shows, a mythical creature capable of gathering evidence, performing amazing scientific analysis at lightning speeds, and arresting perpetrators all in 47 minutes of prime-time television has emerged and holds today's young people transfixed. This seemingly glamorous occupation only minimally represents the true job responsibilities of the crime scene investigator in today's law enforcement agencies.

There are as many varying titles as there are job descriptions, depending on the jurisdiction. CSIs can also be referred to as evidence technicians, crime scene technicians, criminalistics officers, forensic investigators, or crime scene analysts. No matter what they are called, these highly trained multidisciplinary professionals have a primary duty to complete the investigation of a crime scene by identifying and locating forensic evidence, documenting the location and condition of that evidence, collecting and preserving the evidence for transport to the crime laboratory, and maintaining the chain of custody (i.e., the documentation of the location) of the physical and biological evidence at the scene in order to preserve the integrity of the investigation.

CSIs do process items of evidence—such as conducting examination for latent fingerprints or performing presumptive tests for the presence of blood—at crime scenes (see Figure 1.3). However, the majority of scientific analysis occurs at the crime laboratory, and the personnel who generally complete such examinations are forensic scientists who specialize in the specific techniques utilized to analyze and interpret forensic evidence.

FIGURE 1.3
CSIs do not wear glamorous clothing or white lab coats when they are processing crime scenes. This investigator is working a hazardous crime scene and is wearing Level B protective gear.

CSIs can be sworn police officers or civilian personnel. Local law enforcement agencies determine these classifications, and there are no national standards of training or education for becoming a CSI. Many agencies require an applicant to become a police officer and then move into the investigative division after completing several years in the patrol division. Others hire civilian personnel and then train them as CSIs. However, these positions are not paid on the same scale as certified police officers, and they do not have arrest powers. Whether certified or civilian, the qualified CSI must successfully complete many specialized courses in order to develop the knowledge, skills, and abilities required to process the scene of a crime effectively.

Although the increased public awareness of crime scene investigation has brought recognition to the importance of the tasks these highly skilled individuals perform on a daily basis, there has been no appreciable increase in the number of positions within police agencies. Larger agencies usually require a two- or four-year college degree for applicants, whereas small and rural agencies generally do not require a college degree for employment.

The successful CSI must master technical skills including taking photographs, sketching and documenting scenes, processing items of evidence for fingerprints or other impression evidence, utilizing advanced software and technology-based equipment, and communicating well with prosecutors and other members of the investigation team. It is also imperative the CSI be proficient in critical thinking and problem-solving skills. There may be physical challenges at every crime scene, so he or she must be agile as well as capable of working in environments that may be hazardous or unpalatable to the average person. CSIs must be able to analyze the situation, determine what steps have to be taken to identify, document, collect, and preserve forensic evidence—whether the crime scene is inside an abandoned warehouse, on a bridge spanning a waterway, or at a clandestine gravesite 20 miles from the nearest highway.

Hazardous materials (Hazmat) and Hazardous Work Operations and Emergency Response (Hazwopper) training is becoming more common for CSIs, so you should be able to work in personal protective equipment. This involves the ability to wear a self-contained breathing apparatus, which may weigh 30 to 40 pounds, a Level A or B protective suit, face mask, gloves, and boots for extended periods of time. Hazmat and Hazwopper courses are available through community and technical colleges.

Forensic Scientist

The **forensic scientist** works in the crime laboratory performing scientific analyses on physical and biological evidence submitted by the CSI. A forensic scientist will have a four-year degree in chemistry, biology, or another applied science and must complete one to two years of bench training before achieving adequate expertise to perform examinations without the direct supervision of another scientist.

Depending on their area of expertise, forensic scientists perform analytic tests for DNA, toxicology, serology, trace evidence such as hairs and fibers, and arson debris, as well as other tests that require scientific instruments and strict adherence to established protocols that ensure the objective analysis of evidence. Most forensic scientists are employed by state crime laboratories or at the FBI Forensic Laboratory if they are participating in the analysis of forensic evidence. However, some forensic scientists are privately employed and work as independent consultants for defense attorneys. The number of private DNA laboratories is increasing across the United States. These labs are also seeking scientifically qualified laboratory analysts to fill a growing need as private citizens recognize the value of DNA in determining paternity and resolving other civil matters.

Forensic Anthropologist

The **forensic anthropologist** can be a vital member of the crime scene investigation team by providing assistance in a variety of ways. If human remains are located, law enforcement personnel may seek a forensic anthropologist to help ensure that all the remains are identified and collected from the scene after photographs and a detailed sketch of the location and position of the remains have been documented. The forensic anthropologist will be able to verify whether the remains are human or animal, identify the number of victims, and possibly establish a sequence of events that may indicate the approximate time that has passed since death occurred.

Back in the lab, the forensic anthropologist will assist in cleaning up skeletal material so that it can be examined for evidence of trauma that may be visible from the bones. Gunshots and knife wounds often leave marks or