Erica Lawton, M.S., FA/TM-AFTE

EMAIL: erica.lawton@adfs.alabama.gov
PHONE: 251-479-2322

Curriculum Vitae

Educational Experience

Offering Institution	Dates Attended	Major	Degree Awarded
Oklahoma State University	8/2009-5/2012	Forensic Science	MS
Metropolitan University of Denver	8/2001-12/2002	Chemistry	BS
University of Tennessee at Martin	8/1997-12/1999	Chemistry/Biology	N/A
Middle Tennessee State University	7/1998-8/1998	Chemistry/Biology	N/A

Certifications

AFTE - Firearm Evidence Examination and Identification Certification 2009 – current
AFTE – Toolmark Evidence Examination and Identification Certification 2019 – current

Professional Training Experience

Crime Scene Training Courses

- Crime Scene Collection and Search Seminar, Colorado Bureau of Investigation, September 2002
- Crime Scene Investigations I, Miami Police Institute, January 17-21, 2005
- Crime Scene Investigations II, Miami Police Institute, June 18-22, 2005
- Crime Scene Reconstruction, Miami Police Institute, October 17-22, 2005
- Bloodstain Pattern Analysis Workshop, Miami Police Institute, February 13-17, 2006
- Shooting Reconstruction, Miami Police Institute, September 11-14, 2006

Educational Training Conferences

- International Association for Identification, St. Louis, MO August, 2004
- Florida Division of the International Association for Identification, November 1-4, 2004
- 2005 AFTE Educational Conference, Indianapolis, IN June 19-24, 2005
- 2005 FDIAI Educational Conference, Panama City November 6-10, 2005
- International Association for Identification, Boston, MA, July 2-7, 2006
- 2006 FDIAI Educational Conference, St. Petersburg, FL October 22-26, 2006
- 2007 AFTE Educational Conference, San Francisco, CA, May 28-June 1, 2007
- 2007 FDIAI Educational Conference, Ft. Lauderdale, FL, October 21-26, 2007
- 2008 FDIAI Educational Conference, Panama City Beach, FL, October 27-30, 2008
- 2009 AFTE Educational Conference, Miami, FL, June 1-5, 2009
- 2009 IAI Educational Conference, Tampa, FL, August 17-21, 2009
- 2010 International Association for Identification Conference, Spokane, WA, July 12-16, 2010
- 2010 FDIAI Educational Conference, St. Petersburg, FL, October 16-21, 2010
- 2011 AFTE Educational Conference, Chicago, IL, May 30 – June 3, 2011
- 2011 IAI Educational Conference, Milwaukee, WI, August 8 – 12, 2011
- 2011 FDIAI Educational Conference, Panama City, FL, October 23 – 27, 2011
- 2012 IAI Educational Conference, Phoenix, AZ, July 23-27, 2012
- 2012 FDIAI Educational Conference, St. Petersburg, FL, October 21-25, 2012

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- 2013 AFTE Educational Conference, Albuquerque, NM, June 23-28, 2013
- 2013 IAI Educational Conference, Providence, RI, August 4-9, 2013
- 2013 FDIAI Educational Conference, Miami, FL, October 20-24, 2013
- 2014 IAI Educational Conference, Minneapolis, MN, August 10-16, 2014
- 2015 AFTE Educational Conference, Dallas Texas, May 24-29, 2015
- 2015 IAI Educational Conference, Sacramento, CA, August 2-8, 2015
- 2016 AFTE Educational Conference, New Orleans, LA, May 30 to June 3, 2016
- 2016 IAI Educational Conference, Cincinnati, OH, August 8 to 12, 2016
- 2017 AFTE Educational Conference, Denver, CO, May 14-19, 2017
- 2017 IAI Educational Conference, Atlanta, GA, August 6 – 11, 2017
- 2018 AFTE Educational Conference, Charleston, WV June 3 – 7, 2018
- 2019 AFTE Educational Conference, Nashville, TN May 26 – 28, 2019
- 2019 ASAFS Conference, Lake Lanier, GA May 29 – 31, 2019

Firearm Factory Tours

- Taurus Manufacturing Plant, Miami, Florida, July 12th, 2004
- SigArms Gun Manufacturing Plant Tour, August 2006
- Ruger Gun Manufacturing Plant Tour, August 2006
- Savage Gun Manufacturing Plant Tour, August 2006
- Marlin Gun Manufacturing Plant Tour, August 2006
- Colt Gun Manufacturing Plant Tour, August 2006
- Wilson Barrels Gun Manufacturing Plant Tour, August 2006
- Mossberg Gun Manufacturing Plant Tour, August 2006

Armorer's Courses

- Heckler & Koch Armorer School, MP5, Rifles, Trigger Groups, and USP, June 28 – July 2, 2004
- Colt M-16 Armorer's Class, Hollywood, FL April 19-21, 2005
- SigArms Armorer's Class, Coconut Creek, FL December 6-7, 2005
- Glock Armorer's Class, Miami-Dade Police Department, October 31, 2006

Firearm and Toolmark Specific Training Courses

- Physical Match Training Seminar, Colorado Bureau of Investigation, June 2002
- IBIS/ NIBIN Training in Largo, FL July 19 – July 23, 2004
- 2004 Firearms Discipline Meeting in Orlando, October 18-19, 2004
- ATF Serial Number Restoration Course, February 7-11, 2005
- Toolmark Identification, FBI, Quantico, VA November 13-18, 2005
- ATF Silencer Class, Miami, FL January 13, 2006
- FBI Gunshot Residue Course, Miami, FL, March 31st - April 4th, 2008
- 2010 South Florida Firearm and Toolmark Discipline Meeting, Miami, FL, February 11, 2010
- 2011 South Florida Firearm and Toolmark Discipline Meeting, Cooper City, FL, March 10, 2011
- 2012 South Florida Firearm and Toolmark Discipline Meeting, Miami, FL, February 2, 2012
- BATFE NIBIN "Train the Trainer" Training Course, August 19-21, 2014
- 2015 South Florida Firearm and Toolmark Discipline Meeting, Cooper City, Florida March 5, 2015
- Metallurgy for the Non-Metallurgist, AFTE Training Conference, Dallas, TX, May 29, 2015
- Subclass Characteristics Workshop, Palm Beach, FL, February 1-2, 2016
- Suppressor Familiarization Workshop, AFTE Training Conference, New Orleans, LA, May 29, 2016

- LEEDS 3D Scanning of Deformed Bullets and Cartridge Cases, AFTE Training Conference, Denver, CO, May 17, 2017
- Contemporary Issues in Firearms and Toolmark Identification, AFTE Training Conference, Denver, CO, May 14, 2017
- AFTE Theory of Identification – Hypothesis Testing and Research Design, Nichols Forensic Science Consulting, September 20, 2017
- Validation Studies – A Review of the Literature, Nichols Forensic Science Consulting, November 15, 2017

Footwear and Tire Track Training Courses

- Techniques of Electrostatic Lifting at Crime Scene in St. Louis, MO, August 27, 2004
- Footwear Impression Identification Procedures and Results, St. Louis, MO, August 23, 2004
- Examination and Comparison of Footwear Impression Evidence, St. Louis, MO August 24, 2004
- Introduction to Tire Track Evidence, St. Louis, MO, August 26, 2004
- Footwear Impression: Comparison and Examination, Ron Smith and Assoc. April 11-13, 2005
- The Examination of Tire Impression & Tire Track Evidence, William Bodziak, Dec. 4-8, 2006
- Vibram Shoe Manufacturing Plant Tour, August 2006

Quality Assurance/Ethics Training Courses

- ASCLD/LAB ISO – International Assessor Training, Ft. Lauderdale, FL, February 4-8, 2008
- Working Ethics for BSO Civilians- December 2010
- Ethics in Forensic Leadership, Oklahoma State University, Spring Term 2010
- Quality Assurance in Forensic Science, Oklahoma State University, Fall Term 2011
- ASCLD/Lab ISO Assessor Training, Washington, DC, January 7-11, 2013
- ASCLD/LAB Route Cause Analysis, June 23-26, 2014
- Qualtrax Training, Fort Lauderdale, FL, October 20-24, 2014
- ASCLD/LAB Technical Assessor Refresher Training, June 12, 2014
- ASCLD/Lab Assessor Measurement Traceability Training, June 25, 2014
- An Introduction to Statistical Thinking for Forensic Practitioners, Palm Beach, FL March 3, 2016
- Uncertainty of Measure, West Virginia University, May 16-17, 2016

Management Training Courses

- ASCLD Leadership Academy, Washington, DC Spring 2015
- Human Resources in Health Care and the Public, Oklahoma State University, Fall Term 2009
- Forensic Management and Organizational Development, Oklahoma State University, Spring Term 2011

Safety Training Courses

- Bloodborne Pathogens for Civilians- December 2010
- Effective Chemical Safety Management with Respiratory Protection Workshop, Midwest Chemical Safety, September 15, 2015
- FEMA IS-00100.b, April 13, 2015
- FEMA IS-00700.a, April 14, 2015
- FEMA IS-00800.b, April 13, 2015
- OSHA 30 Hour General Industry, March 14, 2016

Forensic Photography and Digital Imaging

- General Police Photography Workshop, Miami-Dade Police Department, June 2004
- Forensic Digital Imaging Enhancement Workshop, Miami Police Institute, March 20-24, 2006

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Employment

1. **Section Chief (Mobile and Birmingham Firearm and Tool Mark Units)**
   Senior Forensic Scientist: January 2017 to March 2019
   Forensic Scientist Supervisor: April 2019 to Present
   a. **Employer:** Alabama Department of Forensic Sciences
   b. **Dates of Employment**: January 2017 to Present
   c. **Principal Duties:** Performing day-to-day supervision of section personnel, monitoring of supplies/reagents, case assignment and review to include management of tasks assigned for rush cases, testimony monitoring, performance evaluations and technical guidance, frequent contact with the Discipline Chief concerning discipline specific technical issues, quality assurance, method validation, ensure forensic services are provided within the guidelines of the ADFS Manuals, appropriate administrative controls to assure compliance of subordinates with department policies and procedure. Analyze firearm and tool mark evidence, issue reports, involved in pre-trial conferences to assist the court's attorneys, and qualified to testify in court. Types of examinations performed include: firearm and tool mark identification, serial number restoration, and distance determination. Qualified to work on ATF BrassTRAX NIBIN systems and qualified NIBIN trainer.

2. **Criminalist II/Crime Lab Technical Leader (Firearm and Tool Mark Section)**
   Criminalist II: January 22, 2007 to June 17, 2011
   Crime Lab Technical Leader: June 18, 2011 to December 2016
   a. **Employer:** Broward Sheriff's Office
   b. **Dates of Employment**: January 22, 2007 to December 2016
   c. **Principal Duties:** Analyze firearm/ tool mark evidence and shoe/ tire evidence, issue reports, involved in pretrial conferences to assist the court's attorneys, and qualified to testify in court. Types of examinations performed include: firearm and tool mark identification, serial number restoration, distance determination, and shoe and tire examination. Qualified to work on ATF Heritage and BrassTRAX NIBIN systems. Creator of the Firearm Sections electronic worksheets. Organized the Forensic Identification Section's reference library and created a database to help criminalists search for and locate reference material. Created several databases to help firearm and tool mark examiners and investigators locate information about firearms submitted to laboratory for test firing and information on NIBIN hits. Supervision of the firearm and tool mark section of the lab including: personnel training and management, performance evaluations, writing procedure manuals, proficiency testing, and equipment and procedure validation. Power user and point person for implementation of StarLIMS, evidence management system for the laboratory.

3. **Criminalist I/II (Firearm and Tool Mark Section)**
   a. **Employer:** Miami Dade Police Department
   b. **Dates of Employment**: May 12, 2004 to January 20, 2007
   c. **Principal Duties:** Analyze firearm/ tool mark evidence and shoe/ tire evidence, issue reports, involved in pre-trial conferences to assist the court's attorneys, and qualified to testify in court. Coordinator for the implementation of the Electronic Document Management System (EDMS) for the Forensic Identification Section, and responsible for the section's EDMS Quality Control and Validation. Organized the Forensic Identification Section's reference library and created a database to help examiners search for and locate reference material. Assisted in the organization and creation of the section's current footwear database.

4. **Intern (Drug Chemistry, DNA, Serology, Questioned Documents, Firearm and Tool Marks)**
    a. **Employer:** Colorado Bureau of Investigation
    b. **Dates of Employment**: May 2002 to December 2002
    c. **Principal Duties:** In the firearms section, created a database of defense firearms experts including their resumes, transcripts of court trials, and any discrepancies that were present in their testimonies. Assisted special agents in processing their evidence, observed and participated in the areas of microscopic evaluation and comparison of fired bullets and cartridge casings, serial number restoration, as well as muzzle to target determination. Prepared reagents used for testing possible illegal drug samples and ran drug standards on the GC/MS in the chemistry section. Completed a research project on the validation of the ABA card system in testing for the presence of human specific blood and protein p30 in semen, for the serology section. Created competency tests for the forensic documents section of the laboratory as well as entered handwriting samples into a forensic document software.

Professional Affiliations

American Academy of Forensic Sciences, 2001-2004
Florida Division of the International Association of Identification, 2004-current

- Regular Member 2004 – 2010
- Life Member 2010 – Present
- Historian – 2006, 2007
- Region 5 Director – 2007
- Footwear and Tire Track Committee – 2006-2016
- Long Range Planning Committee – 2008-2011, Chair 2010
- Resolutions and Legislative Committee – 2008
- Second Vice President – 2008
- First Vice President – 2009
- President – 2010
- Sciences and Practices Committee Chair – 2010
- Chairman of the Board – 2011
- Firearm and Tool Mark Committee Chair – 2010- 2016

Association of Firearms and Tool Mark Examiners – 2004-current

- Provisional Member, 2004 – 2008
- Regular Member, 2009 – June 2016
- Distinguished Member, June 2016 – current
- Adhoc Committee 2011 – AFTE Certification Requirements
- Committee Chair 2013 - current – Electronic Resource Committee
- Editorial Review Committee for AFTE Journal 2013-current
- Nomination Committee, 2015 – 2018, Chair 2018
- 2016 AFTE Conference Host Committee

International Association of Identification, Regular Member – 2006-2019

- Chair – Firearms and Toolmark Subcommittee – 2010 – 2015

Firearms and Tool Marks Subcommittee of the Organization of Scientific Area Committees (OSAC)

- Member – December 2017 – current
- Vice-Chair – July 2019 – current

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Presentations, Classes & Publications

- Knapp, J. Lawton, E. Weber, A. Goudeau J. Farrell, L. "An Examination of How the ANAB ISO/IEC 17025:2005 Forensic Testing Accreditation Requirements (AR 3028) Related to the Firearm and Toolmark Community." *AFTE Journal*, Volume 50, Number 2, 2018, pages 112 – 120.
- *Distance Determination – An Overview*
  - 2018 AFTE Conference, Charleston, WV
  - 2019 AFTE Conference, Nashville, TN
- *Lethality: Complications in Reporting and Testimony in Foreign Countries*
  • 2016 AFTE Conference, New Orleans, LA
- *Electronic Resource Committee (ERC) Developments*
  • 2016 AFTE Conference, New Orleans, LA
- *Similar Tools, Different Marks: The Identification of a Pry Bar and Crowbar to Two Sets of Marks at a Crime Scene*
  • 2011 AFTE Conference, Chicago, IL
- *How to Make the Most out of an Internship and Interview*
  • 2012 FDIAI Conference, St. Petersburg, FL
  • 2013 FDIAI Conference, Miami, FL
- *Firearm Safety for the Crime Scene Investigator*
  • 2012 IAI Conference, Phoenix, AZ
- *Creating Databases Using FilemakerPro*
  • 2010 FDIAI Educational Conference, St. Petersburg, FL
- *Young Forensic Scientist Forum*
  • 2008 FDIAI Educational Conference, Panama City, FL
  • 2010 FDIAI Educational Conference, St. Petersburg, FL
- *Firearms and Toolmark Examination: What the Crime Scene Investigator Needs to Know*
  • 2006 FDIAI Annual Educational Training Conference, October, 2006
  • 2012 FDIAI Conference, St. Petersburg, FL
- *Schallamach: Just a Little Means a Lot*
  • Florida Division of the International Association for Identification News, Quarterly Issue, January – March 2006
  • International Association for Identification Educational Conference, July 6, 2006, Boston, MA
- *The Basics of Firearm and Tool mark Examination and Identification*
  • 2012 IAI Conference, Phoenix, AZ
  • Florida International University, April 4 & 6, 2006
  • University of Miami, March 21, 2005
- *Plastic Cased Ammunition and 223 AK Type Rifles*
  • 2005 AFTE Educational Conference, June 21, 2005
- *Determining Country of Origin Through Cartridge Case Headstamps*
  • 2004 FDIAI Educational Conference, November 3, 2004

Awards

- C.J. Rehling Meritorious Service Certificate – 2019
- C.J. Rehling Meritorious Service Certificate – 2018 (Mobile Firearms Section)
- Walter J Howe, AFTE Member of the Year Award – 2016-2017
- AFTE – President's Award – 2016
- Good of the Association Award, Florida Division of the IAI – 2006
- Award of Excellence, Colorado Bureau of Investigation – 2002

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Courtroom Experience

Over 80 testimonies since January 2007, to include the following courts:

- Florida
- Alabama
- Federal Court
- Turks & Caicos
- Royal Cayman Islands

Categories of Testimony

- Firearms Identification
- Firearms Operability
- Tool Mark Identification
- Serial Number Restoration
- Distance Determination
- Footwear Identification
- Tiretrack Identification
- Airsoft Pistols, Air Pistols, BB Guns: Operability, Velocity, Lethality

Other Qualifications

- Assistant Conference Planner for the Florida Division of the International Association for Identification's Annual Education Training Conference (2006 – 2013)
- Given lectures and assisted in training at the Metropolitan Police Institute for the various crime scene classes given each year
    - Crime Scene Reconstruction – October 2004, November 2009
    - Crime Scene Investigations I – January 2005, January 2006
    - Crime Scene Investigations II – July 2005, March 2006
    - Forensic Digital Imaging Enhancement Workshop – March 2006
    - Shooting Reconstruction – September 2006, October 2010, November 2010, October 2011
    - Physical Evidence Investigations – June 2007
- Participates in teaching and designing an impression evidence class at Nova Southeastern University, Masters of Criminal Justice Program (2008 – Present).
- Part-time Faculty at South Alabama University teaching CJ 223: Introduction to Forensic Sciences