

## **The Arizona Forensic Science Academy: A Model Program for Delivering Forensic Science Education to Criminal Justice Practitioners**

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The Arizona Forensic Science Academy has become a model program for delivering forensic science education and training to criminal justice practitioners. Established in 2011, the Academy was created in response to the 2009 National Research Council publication, *Strengthening Forensic Science in the United States: A Path Forward*, and its specific recommendation to encourage forensic science training for legal professionals after other attempts to host regional symposiums through federal grant programs went unfunded.. (The National Research Council: Committee on Science, Technology, and Law, 2009) The Academy is designed to increase criminal justice practitioners' understanding of forensic principles, scientific methodologies, and evidentiary concerns. Since its inception, the Academy trained more than 1,200 professionals for a combined total of 12,000 hours. Courses in the Academy are taught by scientific and medical experts and provide practical and technical training for prosecutors, defense attorneys, and judges. In addition, the Academy also provides specialized training for forensic scientists and other technical experts.

Six primary training programs have been developed for criminal justice practitioners: a Basic Academy, an Advanced Academy, a "3-D" (Domestic Violence, Drugs, & DUI) Academy, a Forensic Science Lecture Series, Judicial training, and webinars. These training programs are presented to prosecutors, defense attorneys, law enforcement officials, forensic scientists, and other participants without regard to the attendee's role in the criminal justice system. The program goal is to increase criminal justice practitioners' understanding of forensic science and to underscore that scientific principles are blind to the adversarial nature of the criminal justice system.

- Basic Forensic Science Academy: The Basic Forensic Science Academy is a multi-week training program that introduces prosecutors and defense attorneys to the fundamental scientific principles used in the practice of forensic science, addressing the following scientific disciplines: crime scene investigation, toxicology, controlled substances, forensic biology/DNA, firearms, latent prints, death investigation, and digital evidence. Tours of the Phoenix Crime Laboratory and the Maricopa County Forensic Science Center and Medical provide hands-on opportunities for participants to further explore the science in a laboratory setting. This course provides 24 hours of continuing education credits to the Arizona State Bar for each participant.
- Advanced Forensic Science Academy: The Advanced Academy is a multi-week training program delving deeper into three primary scientific disciplines commonly encountered by prosecutors and defense attorneys in criminal proceedings involving the presentation of crime scene evidence to the trier of fact. The scientific disciplines addressed in this course include DNA, Firearms, and Latent Print analysis. Advanced lectures are provided in each of these disciplines and include an in-depth discussion of the science used in the analysis of crime scene evidence, as well as how to interpret scientific reports. The Advanced Academy includes case studies from actual law enforcement investigations and trial proceedings. In addition to local experts, nationally recognized experts are brought in to serve as faculty members for the program. Additionally, judges from general jurisdiction and superior courts assist as faculty members. This training course provides 24 hours of continuing education credits to the Arizona State Bar for each participant.
- 3-D (Domestic Violence, Drugs, and DUI) Forensic Science Academy: The 3-D Academy is a multi-week training program that provides a more in-depth review of three primary scientific

disciplines commonly encountered by prosecutors and defense attorneys in Domestic Violence, Drugs, and DUI criminal proceedings. Advanced lectures are provided for each of these disciplines and include an in-depth discussion of the science used in the analysis of evidence and how to interpret scientific reports. This training course provides 12 hours of continuing education credits to the Arizona State Bar for each participant.

- Forensic Science Lecture Series: The Lecture Series includes stand-alone 4 hour lectures on targeted topics to provide continuing education to forensic science practitioners, including forensic scientists, attorneys, and law enforcement officials. Topics presented to date have included lectures on the Uncertainty of Measurement, Ethics, DNA SWGDAM Guidelines and DNA Mixture Interpretation, Forensic Drug Analysis of Emerging Substances, Leadership Principles, the Validation of the ABI 3500 Genetic Analyzer, the NAS Report on Forensic Science, Courtroom Procedures, Trace Evidence, and DNA Processing of Sexual Assault Evidence Collection Kits, as well as other topics relevant to forensic scientists. These lectures each provide 4 hours of continuing education for each participant.
- Judicial Conference/Training: The Academy Board has partnered with the Arizona Judicial College and the Arizona Supreme Court to develop dedicated training events for judges at all levels (limited, general, appellate, and civil) regarding forensic science issues including the current state of forensic science services in Arizona, challenges to the various scientific disciplines, ongoing efforts for improvements, and foundational principles underlying the different disciplines. The first offering was a dedicated two-day conference held in December 2016 for limited and general jurisdiction judges. Topics included Forensic Basics, Daubert Issues, Forensic Biology/DNA, Death Investigation, Controlled Substances, Firearms, Toxicology, Digital Evidence, and Latent Prints. More than 100 limited and general jurisdiction judges attended the two-day conference. Forensic science training is also being incorporated into the New Judges Training for Arizona judges to provide an introduction to the delivery of forensic science services, accreditation, and quality control systems in state and local crime laboratories.
- Webinars: The AZ Forensic Science Academy has built infrastructure to deliver 60-90 minute webinars on targeted topics to members of the criminal justice community. This will enable individuals who can't travel to Phoenix to participate in forensic science programs. The first three webinars are scheduled for 2017 and will incorporate the following topics: Physical/Sexual Abuse of Children, Cell Phone evidence, and DUI Analysis of Marijuana and related substances.

Since the Academy's inception in 2011, more than 1,200 criminal justice professionals have received more than 12,000 (combined) hours of training. This has included:

- 6 Basic Academies
- 4 Advanced Academies
- 1 3-D Academy
- 21 Forensic Science Lectures
- 1 Judicial Conference

The Arizona Forensic Science Academy is a unique initiative that has succeeded because of the collaborative participation of criminal justice stakeholders, including judges, prosecutors, defense attorneys, law enforcement officials, medical experts, and forensic scientists. It began as an initiative under the Arizona Attorney General's Office Forensic Science Advisory Committee with support from decision makers from across the criminal justice system to meet the forensic science needs of the legal community. The Academy Board is now comprised of representatives from the following agencies: the

Arizona Criminal Justice Commission, the Arizona Attorney General's Office, the Arizona Supreme Court, the Arizona Court of Appeals, the Arizona Prosecuting Attorney's Advisory Council, the Arizona Public Defender's Association, the Maricopa County Attorney's Office, the Arizona Office of the Legal Advocate, the Phoenix Public Defender's Office, the Arizona Department of Public Safety Crime Laboratory, the Maricopa County Medical Examiner's Office, and the Phoenix Police Department Crime Laboratory.

These representatives work together to identify, develop, and deliver training programs which meet the Academy's goals. Once a training program has been developed, Board members utilize both national and local subject matter experts, who voluntarily participate in furthering the technical content of the training program and in serving as instructors for the training programs.

***The program has been 100% self-funded through tuition paid by participants.*** Tuition is used to purchase text books and materials and to pay travel expenses for subject matter experts. Almost without exception, the subject matter experts have volunteered their time to assist in developing content and facilitating the various training programs. Tuition ranges from \$30 for lectures in the Forensic Science Lecture Series to \$300 for the multi-week academies. Some events are offered at no charge when the training does not involve a cost to the Academy.

In the past, forensic science training in Arizona was generally offered exclusively to prosecutors or defense attorneys, and it was rare for prosecutors and defense attorneys to attend the same training event. The collaborative nature of the Academy's training programs has resulted in improved relationships between the various stakeholders, a greater understanding of forensic science principles in the Arizona criminal justice community, and increased access and interaction between trial attorneys (including defense attorneys) and crime laboratories and technical experts in Arizona. The Academy has unquestionably improved the use and understanding of forensic science in Arizona criminal justice proceedings and is a model program that any jurisdiction can replicate.

The Academy has been replicated to varying degrees in other states, and it has been recognized by the Arizona Bar Association for meeting continuing education requirements including training on ethics for attorneys in the state of Arizona. The Academy has also been recognized in the following events and articles:

"The Arizona Forensic Science Academy: A Model Program for Delivering Forensic Science Education To Criminal Justice Practitioners" J. Wolf, R. Reinstein, K. Cattani, N. Crump, J. Johnston, V. Figarelli, E. Ortiz, G. Kula, M. Peoples, T. Agan, K. Cattani, J. Eliason, S. Butler, S. Rex, J. Kalish, M. McLendon, American Academy of Forensic Sciences, General Session, Presentation, February 2017.

"A Novel Approach to Delivering Forensic Science Education to Criminal Justice Practitioners" J. Wolf, R. Reinstein, K. Cattani, V. Figarelli, S. Butler, S. Rex, T. Agan, P. Nelson, N. Crump, G. Kula, E. Ortiz, J. Zick, M. Fischione, C. Nannetti, M. Binford. International Symposium on Human Identification, Poster, September 2014.

"A Novel Approach to Delivering Forensic Science Education to Criminal Justice Practitioners" J. Wolf, R. Reinstein, K. Cattani, V. Figarelli, S. Butler, S. Rex, T. Agan, P. Nelson, N. Crump, (The Justice Management Institute, 2013) G. Kula, E. Ortiz, J. Zick, M. Fischione, C. Nannetti, M. Binford. American Society of Crime Laboratory Directors 41st Annual Workshop and Symposium, Poster, May 2014.

“Crime Lab Oversight Boards: Are they Effective?” B. Hervey, K. Cattani, and D. Gialamas. J. Wolf (Moderator) American Society of Crime Laboratory Directors 40th Annual Symposium, Panel Presentation, May 2013.

The Justice Management Institute. (2013). “The Arizona Forensic Science Training Academy: A Model Training Program for Prosecutors and Defense Attorneys.” U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Assistance.

“Arizona Forensic Science Academy.” M. McLendon, S. Rex, and J. Wolf. International Association for Identification 97th Annual Educational Conference, Answering the NAS Call – Arizona’s Experience with a Statewide Latent Print Peer Group, Presentation, July 2012

“Arizona Forensic Science Academy.” M. McLendon and J. Wolf. American Academy of Forensic Sciences Symposium, Jurisprudence Session, Presentation, February 2011.

## References

National Commission on Forensic Science. (2015, December 8). *Work Products Adopted by the Commission*. Retrieved from The U.S. Department of Justice: National Commission on Forensic Science: <https://www.justice.gov/ncfs/file/818206/download>

The National Research Council: Committee on Science, Technology, and Law. (2009). *Strengthening Forensic Science in the United States: A Path Forward*. Washington, D.C.: The National Academies of Science.