



2017 NWAFS Meeting

Embassy Suites, Portland Airport
Portland, Oregon
September 18-22, 2017

Monday Workshops

- *Morning Session from 8:00 to 12:00*
 - Drug Design and Medicinal Chemistry: How Analogs Are Developed (Part 1)
 - Photography Tips and Tricks / Intro to IR Photography
- *Afternoon Session from 1:00 to 5:00*
 - Applications of Raman Spectroscopy in the Modern Forensic Laboratory
 - Advanced Photography Techniques
- *Full Day Session from 8:00 to 5:00 (with lunch break)*
 - Current and Future Trends in Forensic DNA Technology
 - ANAB Measurement Confidence 150: Forensic Measurement Confidence and Practical Applications
 - Research Workshop: Stability of Fired Cartridge Case Locations in Shooting Scenes

Tuesday Workshops

- *Morning Session from 8:00 to 12:00*
 - A Peek into an Accredited Cannalysis Laboratory
 - Adobe® File Management: The Use of Bridge and Lightroom in Forensic Casework
 - DNA Roundtable on Current Challenges and Transitions
 - ABC Exam
- *Afternoon Session from 1:00 to 5:00*
 - Drug Design and Medicinal Chemistry: How Analogs Are Developed (Part 2)
 - Adobe® Photoshop for Forensic Scientists
 - Testimony Presentation
 - Reproducing Bloodstain Patterns
- *Full Day Session from 8:00 to 5:00 (with lunch break)*
 - Resiliency, Mindfulness, and Performance Enhancement for the Forensic Science Community

Wednesday Workshops and Other Events

- *Morning Session from 8:00 to 12:00*
 - Fentanyl: The Dreaded F-Word
 - Basic Firearms Familiarization
 - Roundtable of Trace Forensic Leaders (ROTFL)
- *Afternoon Session from 1:00 to 5:00*
 - Vendor Reception and Business Meeting

Thursday and Friday

- Keynote Speaker (see next page)
- General Session





Keynote Speaker

Thursday General Session

Multiagency Cooperation During the Malheur Wildlife Refuge Occupation

Presenter: Deschutes County Sheriff Shane Nelson

Abstract:

Deschutes County Sheriff Shane Nelson, along with members of his team, will present an informative keynote address on some of the events surrounding the Malheur Wildlife Refuge Occupation. The focus of the presentation will be how collaboration and cooperation between various agencies benefitted the investigation as a whole.

Biography:

Sheriff Nelson has been in law enforcement in Oregon for more than 22 years. The Deschutes County Commissioners unanimously appointed Nelson as the 9th Sheriff of Deschutes County in July 2015 to replace the retiring Sheriff Larry Blanton. He was born and raised in Bend and graduated from Mountain View High School in 1988. After graduating from Oregon State University in 1993 he moved back to Bend. Lisa, his wife of 16 years grew up in Maupin. They have four children.

Sheriff Nelson is an active member of the community; as Sheriff of Deschutes County, he serves on the Board of the Oregon State Sheriffs' Association; Vice Chair of the High Intensity Drug Trafficking Area and Chair of the Finance Subcommittee; serves on the Board of Oregon Accreditation Alliance; he serves on the Board of Directors for Pilot Butte Partners and has served on the Board of Directors for the Redmond School District. He serves on the Deschutes County Shared Future Coalition. Sheriff Nelson is the past Director of the Redmond Youth Football Program and has coached youth soccer and basketball for the Redmond Area Parks and Recreation District. He is a past member of the Redmond Development Commission Safety Stakeholder Committee, as well as, a past member of the Redmond Executive Association.





Registration Options

- **Unlimited Workshops and Meeting Registration**
Member: \$500
Non-Member: \$700:
includes registration for as many workshops as you want to attend Monday through Wednesday morning, admission to Wednesday's vendor lunch and reception, Thursday's keynote address, general session, Portlandia themed evening banquet, Friday's general session, and lunch Monday through Thursday.
- **Meeting Registration**
Member: \$300
Non-Member: \$400:
includes admission to Wednesday's vendor lunch and reception, Thursday's keynote address, general session, Portlandia themed evening banquet, Friday's general session, and lunch on Thursday.
- **Workshops Only Registration**
Half Day Workshops Member: \$50
Half Day Workshops Non-Member: \$75
Full Day Workshops Member: \$100
Full Day Workshops Non-Member: \$150
includes registration for the workshops selected and lunch on the days the workshops are scheduled.

To register, visit:

<http://nwafs.org/index.php/fall-meetings/current-meeting>





Workshop Abstracts

Adobe® File Management: The Use of Bridge and Lightroom in Forensic Casework

Steven Stone, Washington State Patrol Crime Lab

Adobe® software offers an intuitive way to organize and present digital images for use in casework. This class aims to give an overview of the benefits of utilizing the file management programs offered by Adobe®, namely Adobe® Bridge and Adobe® Lightroom, to assist in the transition from the crime scene (or of crime scene evidence) to the laboratory. Using practical and casework inspired examples we will show how the tools inside these software can help present your digital images better for case files and for presentation in court.

Adobe® Photoshop for Forensic Scientists

Steven Stone, Washington State Patrol Crime Lab

Adobe® Photoshop offers a wide swath of image enhancement tools that can assist a Forensic Scientist in producing the best possible work for the evidence being examined. This class will first help orient a user within the Photoshop workspace. From there one can learn what enhancement techniques to apply and what to avoid during the analysis of digital images for a case. With this knowledge, one will be able to figure out the best logical path for their work without fear of “messing up”. Using real life examples this class will help show you how to get the best out of your digital images.

Advanced Photography Techniques

Jeff Borngasser and Chris Hamburg, Oregon State Police

This workshop is a hands on practical workshop to introduce and practice advanced photography techniques utilized by crime scene investigators. Impression, trajectory, and low light techniques will be presented and practiced during the workshop. Individuals are encouraged to bring their camera equipment to participate in hands on exercises.

ANAB Measurement Confidence 150: Forensic Measurement Confidence and Practical Applications

Emma Dutton, ANAB

This course will review the basic concepts and the accreditation requirements associated with measurement traceability, measurement assurance and measurement uncertainty as well as discuss the interrelationship between the three. A basic process for the effective evaluation of a calibration service supplier or reference material producer will be discussed and, through a practical exercise, participants will apply the process. Metrology terminology and basic statistics, including a discussion on probability density functions and how they are used to quantify an uncertainty component, will be introduced. Additionally, the NIST 8-Step Process for Estimating and Reporting Measurement Uncertainty which provides a general framework for estimating measurement uncertainty, will be presented and an Excel spreadsheet template for developing an uncertainty budget will be reviewed. Lastly, the course will conclude with a discussion on the importance of having sufficient knowledge on these topics regarding the purpose, philosophy and scientific concepts for effective testimony.



Applications of Raman Spectroscopy in the Modern Forensic Laboratory

Mohammed Ibrahim, Thermo Fisher Scientific

In recent years, Raman spectroscopy and confocal Raman microscopy have gained increasing popularity in many fields including material science, life science and forensic science. In this workshop, a brief introduction to the fundamentals of Raman spectroscopy and Raman microscopy will be presented, followed by a wide range of real-world application examples in the realm of forensic science. The applications include trace evidence analysis, questioned document examination (QDE), counterfeit detection, gunshot residue (GSR) and explosive analysis, and narcotics identification. The complementarity between FTIR and Raman spectroscopy will also be discussed. A state-of-art confocal Raman microscope with multiple excitation wavelengths will be available for demonstration and sample analysis.

Basic Firearms Familiarization

Dan Alessio, Oregon State Police

This four hour course will cover firearms safe handling, firearms operating mechanisms and terminology. Various types of firearms will be present so that the student can handle them and learn how they function. We will address topics such as firearm safeties, the difference between a magazine and a clip, cartridges and shotshells, and firearm function.

Current and Future Trends in Forensic DNA Technology

Join Thermo Fisher Scientific as they bring their HID University seminar series to the NWAFS' Fall Meeting. This full day workshop will cover current and future trends relating to Applied Biosystems reagents, instrumentation, and software. Topics include: maximizing casework results with the proven performance of capillary electrophoresis and the power of next-generation sequencing (NGS) for your most challenging samples; new tools for streamlining sexual assault sample processing; expanded multiplex kit implementation, a look back at lessons learned; getting more from less, tackling low input samples with confidence; validation tips and tricks, including HPS Y-screen validation and probabilistic genotyping implementation support; interesting cases

Drug Design and Medicinal Chemistry: How Analogs Are Developed (Parts 1 and 2)

Dr. Jason Stenzel, Washington State Patrol Crime Lab

Abstract coming soon. See registration on web site.

DNA Roundtable on Current Challenges and Transitions

As technology changes, priorities shift, and backlogs grow, how are DNA Sections in our region keeping up? What changes has your lab implemented? What are you thinking about implementing? This roundtable is an exciting opportunity for us to share and learn from each other as we tackle those issues we all face. We will discuss the newly expanded amplification kits, probabilistic genotyping software, the validation process, increased SAFE kit submissions, screening protocols, property crimes, report language, testimony experience, etc.



Fentanyl: The Dreaded F-Word

Carly Sizelove and Sara Short, Oregon State Police

This workshop will cover the basics of:

- Instrumental data of fentanyl and various fentanyl derivatives
- How to be safe when working with fentanyl-related evidence
- Case studies – counterfeit tablets and overdoses

A Peek into an Accredited Cannalysis Laboratory

Eric Wendt, Green Leaf Lab

The legalization of marijuana in Oregon has created a need for new infrastructure to support licensing requirements, public demand for product, and protecting consumer safety. Green Leaf Lab, Oregon's first ORELAP Accredited and OLCC licensed cannabis laboratory, is a full service analytical lab located in the Portland area that serves producers and processors throughout the entire state. The presentation will focus on methodology used when performing cannabinoid profiling, pesticide and solvent detection, terpene analysis, water activity and moisture content. There will also be content relating to marijuana product manufacturing processes. An informative questions and answer session will also be included.

Photography Tips and Tricks / Intro to IR Photography

Jeff Borngasser, Oregon State Police

This workshop is an introduction to IR/UV-photography of blood and other items encountered by crime scene investigators. Demonstrations of how this type of photography differs from conventional photography will be covered. Different lighting and filter conditions and how they can change the image captured will be discussed. The focus of this workshop will be crime scene photography; however, some other techniques will be discussed such as obliterated writing, counterfeit currency, and pattern removal. Individuals are encouraged to bring their IR cameras to participate in hands on exercises. If time permits additional conventional photography techniques utilized in crime scene processing will also be covered. Students are requested to bring conventional and IR cameras.

Reproducing Bloodstain Patterns

Karen Green, Green Forensics

Students in this half day workshop will examine bloodstain patterns, assess how they were made, and attempt to reproduce the patterns in a controlled setting. Lecture and group participation will discuss the scientific method and BPA in forensic examination and testimony.

Research Workshop: Stability of Fired Cartridge Case Locations in Shooting Scenes

Matt Noedel, Noedel Scientific

The distribution of fired cartridge cases in shooting scenes has long been a point of contention. Some believe that their positions and distribution is of no value to reconstruct a shooting. Others rely completely on their locations in reconstruction. This study will examine how stable a fired cartridge case is in an environment once it has landed. Questions explored during this research include "How far does a cartridge case move if run over by a vehicle?" and "Does secondary damage on a cartridge case indicate secondary movement?". This workshop will not consider how firearm ejection patterns occur, rather the characteristics of cartridge cases once they have landed.



Resiliency, Mindfulness, and Performance Enhancement for the Forensic Science Community

Richard Goerling, Hillsboro Police Department

An intensive introduction to the science of mind-body and cognitive conditioning through mindfulness meditation. Experiential practice through guided meditations and mindful movement are reinforced with discussions on scientific research to support resiliency. This training begins the challenging journey that can transform our capacity for working within a trauma filled landscape with resilience, and for meeting those in deep suffering & crisis with greater skill, humanity & desired strategic outcomes. A trauma informed training that resources participants for greater resiliency of mind, heart and body.

Roundtable of Trace Forensic Leaders (ROTFL)

Kris Gates, Oregon State Police

An opportunity to share with and learn from our region's Trace Evidence Examiners. How do our approaches differ and what do we have in common? How can we assist one another, given the dwindling numbers of Trace examiners in each of our areas and nationwide? Specific topics to be determined soon; feel free to send ideas to kris.gates@state.or.us

Testimony Presentation

Evan Howells

This 4-hour course will feature collaboration and information about testifying with confidence and poise. Learn how to use vocal projection, diction, body language, and posture to better communicate testimony in the courtroom. Participants will learn about effective presentation techniques, be able to receive and provide feedback to one another, take part in mock-testimony while earning feedback on what was communicated effectively, all while in a safe and open environment.

