

## Next Level Friction Ridge Examinations



**Date:** March 9 - 13, 2026

**Time:** 0800 - 1700 Monday - Thursday  
0800 - 1200 Friday

**Cost:** \$800.00 USD

IAI approved training hours (36) for Latent Print & Tenprint Certification and Recertification

**Location:** King County Regional AFIS  
900 Oaksdale Ave. SW  
Renton, WA 98057

**Link to Register:** [www.EvolveForensics.com/schedule/](http://www.EvolveForensics.com/schedule/)

### Instructors



Glenn Langenburg, Owner  
Elite Forensic Services

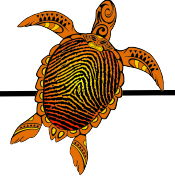


Alice White, Owner  
Evolve Forensics

### Course Description

This is a 4.5-day course (36 hours) in *advanced* friction ridge examination topics. Specifically, this course will cover four challenges associated with the examination process: 1) How do the characteristics of friction ridges and the associated distortions change when the impression not recorded in typical “residue”, but instead a blood matrix?; 2) What new complexities do blood impressions impart in the Analysis, Comparison, and Evaluation (ACE) phases; 3) What activity level issues are impacted by impressions in a blood matrix? And 4) How does the interpretation of ridge detail consisting of blood or complex residue scenarios affect our exclusion decisions?

When the answers to these questions are readily apparent, examiners efficiently and confidently complete cases. When the answers to these questions are opaque, examiners may slip into “analysis paralysis” (unable to make a decision) or they may exit the examination process too soon and offer an ill-supported opinion. We will explore these challenging questions through the examination of impressions that bear increasingly difficult interactions between surfaces and materials delivered by the skin. The course will consist of a series of lectures and practical exercises to emphasize the learning objectives. A test will be provided at the completion of the course to ensure students have understood the material.



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## Learning Outcomes:

At the completion of the course, the student will take a test to demonstrate the completion of the learning objectives. The student attending this course will be able to:

- Identify characteristics of typical residues and blood, with consideration of the distribution of the material on the skin and deposition effects
- Evaluate studies regarding bloody friction ridge impressions and distortion
- Identify the behavior of residue and blood on different types of surfaces
- Describe how pressure, volume, drying time impact bloody impressions
- Recognize the typical range of distortion factors as observed with both residue and blood
- Communicate how blood and residue can affect activity level propositions
- Recognize and interpret tonal reversal in complex impressions (blood and residue)
- Assess corresponding and non-corresponding features in complex impressions (blood and residue)
- Apply ACE-V to complex impressions to reach source opinions, which will include 2018 OSAC proposed source opinions.
- Recognize policy, quality control, and best practices supported by research regarding the application of OSAC proposed source opinions
- Interpret complex cases (residue and blood) that can complicate the application of ACE-V and reporting OSAC proposed source opinions

## Daily Schedule

### Day 1 - Advanced Feature Detection – “Normal” Residue Distribution

0800 - 0830 (Alice) Introductions and Course Overview

0830 - 0900 (Alice & Glenn) Composition of Latent Print Residue and Blood Matrix

0915 - 1015 (Alice) Distribution and Transferring of Residue

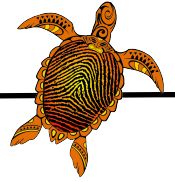
1030 - 1100 (Alice) Redistribution of Residue due to Skin Movement and Surfaces

1100 - 1130 (Glenn) Introduction of Blood as a Dynamic, Fluid Matrix

1130 - 1230 *Lunch Break*

1230 - 1445 (Alice) Feature Detection Exercises

1500 - 1700 Debriefing Exercises



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### Day 2 - Advanced Feature Detection – Blood Residue

0800 - 0900 (Glenn) Properties of Blood  
0915 - 1015 (Glenn) Deposition Factors Affecting Blood  
1030 - 1130 (Glenn) Substrates and Blood Prints  
*1130 - 1230 Lunch Break*  
1230 - 1330 (Glenn) Blood Print Comparison Exercises  
1345 - 1445 Debriefing Exercises  
1500 - 1700 (Glenn) Activity Level and Blood Prints

### Day 3 - Advanced Feature Detection – “Normal” Residue and Dislocated Ridge Flows

0800 - 0930 (Alice) Angle of Contact and Deposition Pressure  
0945 - 1130 (Alice) Shearing Stress and Torque  
*1130 - 1230 Lunch Break*  
1230 - 1445 (Alice) Feature Detection Exercises  
1500 - 1700 Debriefing Exercises

### Day 4 - Side-By-Side Comparisons

0800 - 0900 (Glenn) Nuances of ACE-V Decision-Making  
0915 - 1015 (Glenn) OSAC 2018 Conclusion Scale  
1030 - 1130 (Glenn) Applying Tolerances to Friction Ridge Features  
*1130 - 1230 Lunch Break*  
1230 - 1400 (Glenn) Weighing Similarities and Differences  
1415 - 1600 (Glenn) Intermediate Comparison Exercises and Debriefing  
1600 - 1700 Debriefing Exercises

### Day 5 - Complex Side-By-Side Comparisons – Case Studies

0800 - 1000 Complex Comparison Exercises  
1000 - 1100 Debriefing Exercises  
1100 - 1200 Closing Remarks