



# RON SMITH & ASSOCIATES, INC.



## ESSENTIAL RIDGEOLOGY CONCEPTS

### Course Description

This five day introductory course is designed to familiarize the student with the fundamental concepts of Rid geology, which is a holistic approach to fingerprint examination. This course examines in detail the following topics theory, technique, standards and standards for conclusions. The theories of skin growth, persistency and biological uniqueness are presented, along with the contributions of key researchers in the science of fingerprints.

The focus then shifts heavily toward technique. Considerable time is spent discussing ACE-V methodology, but preferential treatment is given to the analysis phase. Students will analyze numerous impressions, record their bench notes and then articulate and defend those notes for the class. This will reinforce the material presented and will better enable the student to understand the appearance of a given impression. It will also highlight the importance of a transparent case record that can withstand scientific scrutiny. Students will also complete two (2) separate comparison exercises.

Both legal and scientific standards will then be discussed, along with what comprises our standards for conclusions. Key legal decisions pertaining to the science of fingerprints will be discussed, as will issues raised by prominent critics of the science. Students will complete a written assessment at the end of the course.

### Target Audience

This course is designed to assist the student in becoming a better-rounded and more competent fingerprint examiner. Those newer to the science of fingerprints will benefit from basic explanations of complex topics, while more seasoned examiners – such as those trained to a numerical standard for identifications – will benefit from discussions involving all aspects of the deposition process. Students with experience levels between two weeks and 25+ years have attended this course.

### Should be Able to Perform

Upon successful completion of this course, the student should be (better) able to:

- Understand and articulate the science of friction ridge skin examination.
- Utilize all available information in a given impression for examination purposes
- Articulate the importance and necessity of "running the ridges"
- Understand objective measurements utilized during the examination process
- Properly document the analysis phase of the ACE-V methodology
- Explain the appearance of a friction ridge impression.
- Explain the relationship between clarity and tolerance.



**Class Instructor:**  
**John Black**



### Course Logistics

**When:**  
March 2-6, 2026

**Class Times:**  
08:00 AM - 05:00 PM

**Where:**  
Public Safety Operations Building  
2130 South Military Highway  
1st Floor Multi-Purpose Room  
Chesapeake, VA 23320

**Tuition:**  
\$650.00

### Local Contact

Grover F. Davis  
Fingerprint Examiner  
Chesapeake Police Department  
(757) 382-8012  
gdavis1@cityofchesapeake.net

# Daily Schedule

	Day 1	Day 2	Day 3	Day 4	Day 5
Hour 1	Registration Course overview Introductions	Comparison Exercise #1	Comparison phase	Comparison Exercise #1, #2	Analysis exercises
Hour 2	Basis for Ridgeology	Visual acuity exercises	Comparison Exercise #2	Comparison exercise #1, #2	Comparison Exercise #1, #2 or #3
Hour 3	Researchers' contributions	Formation of figure/ground relationship	Comparison Exercise #2	Analysis exercises	Comparison Exercise #1, #2 or #3
Hour 4	Researchers' contributions	ACE-V methodology	Evaluation phase	Standards for conclusions	Current events
Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
Hour 5	Structure of friction ridge skin	Analysis phase	Verification phase	Standards for conclusions	Course review
Hour 6	Skin versus prints	Documentation issues	Scientific standards	SWGFAST standards	Written assessment
Hour 7	Persistence and biological uniqueness	Analysis exercises	Legal standards	Close non-matches	Commonwealth v. Patterson video
Hour 8	Comparison Exercise #1	Analysis exercises	Legal standards	Analysis exercises	Course evaluations and certificates

## Must Bring to Class

Attendees must bring a fingerprint magnifier and ridge counters.

Dress is business casual as the course will be conducted in a professional environment and facility.

## Pre-Requisites

Attendees of this course should consider taking the Introduction to the Science of Friction Ridge Examination course first, however it is not required.

## Recommended Reading

Ashbaugh, David R. *Quantitative-Qualitative Friction Ridge Analysis: An Introduction to Basic and Advanced Ridgeology*; CRC Press LLC: Boca Raton, FL, 1999

Black J. *Is There a Need for 100% Verification (Review) of Latent Print Examination Conclusions?* *Journal of Forensic Identification* (2012), 62 (1), 80 – 100.

## Helpful Lodging Information

Although we cannot endorse any particular hotel property, we have confirmed that the following lodging is within a reasonable commuting distance to the training site.

Springhill Suites Chesapeake Greenbrier  
1446 Crossways Blvd.

Chesapeake, VA 23320

(757) 410-9406

Please click [here](#) for reservations

**Comments on Training Site:**  
**Park in the front parking lot.**