

Introduction to Forensic Science: History and Cases

1. *forensis*
2. Miranda rights
3. MMO
4. Frye Standard
5. Daubert Ruling
6. Direct evidence
7. Circumstantial evidence

Crime Scene Investigation/Evidence/Photography

1. 4<sup>th</sup> amendment
2. 7 S's of crime scene investigation
3. Photograph ranges at a crime scene
4. Search patterns
5. Questioned samples vs known samples
6. Lighting in forensic photography

Evidence

1. Transient evidence
2. Conditional evidence
3. Pattern evidence
4. Associative evidence

Fingerprints

1. Fingerprints as class evidence
2. Fingerprints as individual evidence
3. Latent prints
4. Patent prints
5. Galton details or minutae
6. Classifications of prints
7. Principle of permanence
8. Principle of uniqueness
9. Fill the table:

Method	What does it react with?	Development color
--------	--------------------------	-------------------

Powder (dust)	Physical (no reaction)	
Ninhydrin		
Silver nitrate		
Cyanoacrylate		

### Hairs and Fibers

1. Natural fibers
2. Animal fibers
3. Plant fibers
4. Synthetic fibers
5. Fibers as class evidence
6. Fibers as individual evidence

### Blood

1. Homozygous
2. Heterozygous
3. Genotype
4. Phenotype
5. Components of blood
6. If a person is A+, what is the percent of the US population that has this blood type? (A=42%, Rh=85%).
7. Blood as class evidence
8. Blood as individual evidence
9. Scalloping/spiking of blood drops
10. Satellite droplets
11. Cast-off pattern
12. Skeletonization
13. Angle of impact for blood drops
14. Blood trails
15. Blood pools

## DNA

1. DNA Extraction
2. PCR (steps)
3. Gel Electrophoresis
4. Probes
5. DNA profiling uses

## Bio-Recovery

1. PPE and examples
2. Shapes and names of shapes of bacteria
3. Type of microbes
4. When to take pictures and why
5. How to clean basic areas of a house (steps and chemicals)
6. How to deodorize
7. Forms of written documentation and why used
8. Forms of photographic documentation and why used

## Death Investigations

1. Blunt force trauma
2. Abrasions
3. Contusions
4. Lacerations
5. Sharp force trauma
6. Stab/puncture wounds
7. Incision/cut wounds
8. Chop wounds
9. Severity of injury depends on what circumstances
10. Avulsions
11. Perforation
12. Penetration
13. Mongolian spots on babies
14. Periorbital ecchymosis
15. Senile pupura
16. Deaths that require an autopsy
17. Toxicology
18. Histology

- 19. Serology
- 20. Neuropathology
- 21. Rigor mortis
- 22. Livor mortis
- 23. Algor mortis
- 24. Give the time ranges and condition of the body seen for the following:

Mortis	0-2	3-15	16-36	36+
Rigor				
Livor				

- 25. Post-Mortem Interval
- 26. Steps of a death scene investigation (Including at coroner's office)
- 27. Parts of a coroner's/medical examiner's report (Autopsy report)
- 28. Evidence collected at death scene investigation
- 29. Evidence collected at Internal examination
- 30. Evidence collected at External examination
- 31. Animal uses

\*Articles you read in class