

GENERAL FORENSIC.

01: DEFINITION

Forensic Science is the application of Science to the criminal and civil laws that are enforced by police agencies in a criminal justice system.

Criminalistics is the other synonymous term used. The term forensic comes from the Latin word forensic means an open court or public or to the forum. A place where people meet and exchange ideas.

02: IMPORTANT CONTRIBUTORS TO FORENSIC SCIENCE.

- 1) Father of forensic science - Edmond Locard
- 2) Sherlock Holmes - Sir Arthur Conan Doyle
- 3) Criminal investigation - Hans Gross
- 4) An introduction to Criminalistics - Richard Saffersstein
- 5) Criminalistics was first coined by - Dr. Hans Gross
- 6) Forensic toxicology - Mathieu orfila
- 7) Forensic pathology - Rudolf Vischow
- 8) Forensic entomology - Bernard greenberg
- 9) Forensic odontology - Oscar Amdeedo y Valdes
- 10) Forensic Ballistics - Calvin goddard
- 11) Digital Forensics - Michael Anderson
- 12) Forensic Anthropology - Thomas Dwight.

- 13) Forensic DNA Analysis - Alec Jeffery
- 14) Forensic Anthropometry - Alphonse Bertillon
- 15) Question Document - Albert Osborn
- 16) Finger prints - Francis Galton
- 17) Forensic Psychology - Wilhelm Wundt

YEAR

HISTORY

- 1) 44 BCE - Roman physician Antistius performed the autopsy on the body of Roman politician Julius Caesar (first official Autopsy)
- 2) 3000 BCE - Egyptian started the practice of removal of the examination of internal organs after Death.
- 3) 1st Century CE - Roman orator and Jurist Quintilian used basic forensics to acquit an innocent at 13th century
- 4) 13th century - ~~Fortunato~~ First literature to determine the cause of death is Xi Yuan Li by Song Li (explain diff between acc death & Homicide).
- 5) 16th century - Fortunato fidelis and paulo Zacchia studied the changes

in the structure of body due to a disease and laid the foundation of Modern pathology

- 6) 1773 - Carl Wilhelm Scheele developed a chemical to detect the presence of Arsenic in a dead body.
- 7) 1775 - Paul Revere an amateur dentist identified the dead body of American revolutionist Dr. Joseph Warren using his dental work.
- 8) 1814 - Mathieu Orfila wrote first book on forensic toxicology, *Traite des poisons*.
- 9) 1835 - Henry Goddard connected a bullet to a murder weapon as physical analysis.
- 10) 1836 - James Marsh developed arsenic detection process called Marsh test.
- 11) 1879 - Alphonse Bertillon developed anthropology technique (Anthropometry).
- 12) 1879 - Wilhelm Wundt founded his first laboratory in Germany for forensic psychology.
- 13) 1880 - Sir Francis Galton developed the first technique of fingerprint.
- 14) 1889 - Dr. Oscar Amedeo published his book on forensic odontology named *L'Art Dentaire en Medicine Legal*.

- 15) 1896 - Henry's classification System developed by Edward Henry
- 16) 1910 - Edmond Locard formulated the principle of exchange
- 17) 1930 - Karl Landsteiner was awarded with nobel prize for discovery of blood grouping
- 18) 1976 - Donn Parker published the first book on digital evidences in Computer crimes named Crime by Computer
- 19) 1984 - DNA fingerprinting was developed by Alec Jeffery.
- 20) 1984 - FBI launched Computer analysis's Response Team.

HISTORY AND DEVELOPMENT OF FORENSIC SCIENCE

1. The early years.

- In 700's the Chinese used fingerprint to establish the identity of document & clay sculptures.
- Few scientific advances in 1248 a book 'His duan Yu' (The washing away of wrongs) published by Chinese that describes distinguished features of drowning

- from strangulation.
- 1609 - first treatise on systematic document examination was published in France.
 - 1784 - First documented use of Physical Matching.

2. The 1800s:

- First recorded use of questioned document analysis.
- Tests to check presence of blood is developed.
- Bullet Comparison
- First use of toxicology in a Jury trial (Cassenic detection).
- First crystal test for hemoglobin using hemin crystals
- 1st Microscopic crystal Test using hemin test is 1853 by Ludwig Teichman)
- First use of photography for identification of criminals and their documentation).
- First recorded use of fingerprint to solve crime
- First Microscopic use of comparison bridge

3. The 1900s

- The establishment of forensic science in curricula in 1902 by Swiss professor R. A. Reiss at university of Lausanne Switzerland.
- In 1950 the University of California at Berkeley established one of the first Academic department of criminology and American academy of forensic science in Chicago.

- Use of Comparison microscope is started for bullet comparison.
- 1931 Absorption elution ABO blood typing technique started
- Development of Luminol
- Study of Voice prints started
- Use of Headspace technique for Arson cases
- Development of SEM and electron dispersion X ray technique
- Evaluation of GC-MS in forensic purposes
- Development of PCR for clinical & forensic application

4. 21st Century