

BA.LL.B (HONS.) – IX-SEMESTER

FORENSIC SCIENCE AND LAW

COURSE CODE:

Course Objective: Innovations in diverse areas of Forensic Science has led to the growth of importance of Forensic science technique in Criminal Jurisprudence. This course aims to give an overview of the evolution of Forensic Science and different types of techniques developed. The paper is aimed at discussing the effectiveness and admissibility of Forensic Science Techniques in Criminal Jurisprudence.

Course Outcomes:

1. To understand the jurisprudential and technical aspects behind the Forensic Science
2. To recognise the importance of Forensic Science in Prosecution of Criminals.
3. To understand the origin and development of Forensic Science Techniques and acquaint with various technological advancements.
4. To analyse various techniques of Forensic Science and its interface with technological developments
5. To interpret and analyse various judicial decisions on admissibility of evidence collection.

UNIT-I: Basics of Forensic Science and Crime Scene Management, Crime & Criminal behaviour, Modus Operandi, Criminal profiling, Corpus Delicti, Criminal Justice System Important wings of criminal justice system, Its structure & functioning, Role of Police officers, prosecution & judicial officers, Role of Forensic scientists, medico-legal doctors, Expert Testimony, Forensic Science, Basic Principles & Significance, History & Development of Forensic Science, Organizational structure of Forensic Science labs in Central & State, Crime Scene Management, Defining the Scene of crime, Managing a crime scene & its hierarchy, Role of First Responding Officers, Search Patterns of a crime scene, Crime scene Documentation, Collection, Packaging, Labelling & Forwarding of exhibits to forensic laboratories, Preservation of evidence, Health & Safety Protocols

UNIT-II: Application of Forensic Science in Crime Investigation, Definition, Nature, Need & Scope of Forensic Science, Crime Scene Evidences, Establishment of identity of Individuals, DNA, Fingerprints/Foot prints, Anthropology – Skeletal Remains, Odontology, Questioned Document and Their Identification, Identification of objects by shape and size, Handwriting and signature-analysis, identification and examination, Forensic Ballistics and vehicular accident reconstruction, Chemical & Toxicological Analysis, Drugs of Abuse & Narcotic drugs, Explosives, Fire Scene Investigation, Analysis & Interpretation of fire scenes, Fire Dynamics, Detection of Ignitable liquid residues in fire scenes

UNIT-III: Forensic medicines and law, Medical Jurisprudence, Brief History & current scenario at National & International level, Forwarding of Biological samples to Forensic Laboratories, Medico legal aspect of Death, Concept of Human Anatomy & Physiology, Medico Legal Aspects – PM report, Dying Declaration & Expert Testimony (Evidence Act), Sexual Offences - Rape, DFSA (Drug Facilitated Sexual Assault), Medical Termination of Pregnancy Act 1971, Prenatal Diagnostic Technique Act 1984, Mental Health Act 1987, Prevention of Food Adulteration Act 1954,

UNIT-IV: NDPS Act 1985, Petroleum Act 1934, Prevention of Damage to Public Property Act 1984, Prevention of Illicit Trafficking in NDPS Act 1985, Arms Act 1950, Explosives Act 1984, Explosive Substance Act 1908, Recent advances in Forensic Science, Cyber crime: definition, hacking, virus, obscenity, pornography, software piracy. IT Act, 2000, Intellectual

property right-domain name, Trademark. Computer security encryption, decryption and digital signature, Narco analysis: theory, forensic significance of Narco-analysis, admissibility in court, Brain mapping- introduction, EEG, P-3000 wave,

UNIT-V: Polygraph: Principle and technique polygraph as forensic investigative tool, NHRC guidelines for polygraph test, Facial reconstruction: Method and technique, facial reconstruction in forensic, Preventive Forensic, Analytical methods: Gas chromatography, UV-Visible spectroscopy, IR, Forensic DNA Finger Printing

Text Books:

1. Henry Lee's Crime Scene Handbook by Henry C Lee
2. Forensic Biology by Shrikant H. Lade
3. Crime Scene Processing and Laboratory Work Book by Patric Jones
4. Forensic Science: An Introduction to Scientific and Investigative Techniques 3rd ed. by Stuart H. James
5. Criminalistics: An Introduction to Forensic Science, 9th ed. By Richard Saferstein
6. Compute Crime and Computer Forensic by Dr. R.K. Tiwari
7. Criminal Profiling: An Introduction to a Behavioral Evidence Analysis, 3rd ed. By Brent E. Turvey

Reference Books:

1. Forensic Science in Criminal Investigation and Trial, 4th ed. By B.R. Sharma
2. Handbook of Forensic Psychology Dr. Veerraghavan
3. Crime Scene Management with Special Emphasis on National level Crime Cases by Dr. Rukmani Krishnamurthy under publishing
4. Text Book of Medical Jurisprudence, Forensic Medicine and Toxicology by Parikh C.K