

B. Sc. (Hons) Forensic Science

Program Education Objectives (PEOs)

PEO-1: Career Prospectus: CU forensic undergraduates will be well prepared for successful careers in the profession or research; innovation in an industry and/or in government in one or more disciplines of forensic science and /or sub disciplines of science.

PEO-2: Competency: CU forensic undergraduates will be skilled in implementing current and emerging technologies and software practices for the detection, analysis, and evaluation of forensic evidence.

PEO-3: Leadership: CU forensic undergraduates will be successful in leading multidisciplinary teams with professional competencies to extend their experiences, abilities, and dexterities in scientific investigations to give unbiased and firm scientific opinions in the courts.

PEO-4: Confidence Building: CU forensic undergraduates will serve society not solely as forensic experts but as contributors towards a healthy, secure, and vibrant society by making people alert about various methods adopted by criminals for committing crimes.

PEO-5: Professional and Ethical Honesty: CU forensic undergraduates will be successful in higher education in forensic science or criminology if pursued.

Program Outcomes (POs)

PO-1: **Forensic Knowledge and its application:** Apply the knowledge of fundamentals of Forensic Science, Chemistry, Botany, Zoology, Mathematics, and Physics for the solution of complex forensic problems in achieving a crime-free society.

PO-2: **Practice for Society and creativity:** Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional practice in forensic examinations. To investigate the methods of crime examination, its requirements and effect on society, and newer advances in Forensic Science.

PO-3: **Problem Analysis:** Identify, formulate, and analyse different exhibits of crime using principles of Forensic Science, and natural sciences.

PO-4: **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of forensic practices.

PO-5: **Design/Development of Solutions:** Design solutions for complex problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.

PO-6: **AI and Modern Tool Usage:** Learn and Apply AI technology and appropriate techniques, resources, and modern tools with an understanding of the limitations.

PO-7: **Environment and Sustainability:** Understand the impact of the science in societal and environmental contexts, and demonstrate the knowledge of and the need for sustainable development.

PO-8: **Communication, work ethics and teamwork:** Communicate effectively to direct and guide interdisciplinary team members and present opinions in courts; write effective reports and design documentation, make effective presentations, and give and receive clear instructions. Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO-9: **Conduct Investigations of Complex Problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO-10: **Life-long Learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of modern era and technological change.

PO-11: **Leadership Readiness and interpersonal skills:** To explore and apply the roles of Science in Forensic investigations, criminal behavior, and society & use management skills to guide people to the right destination. Use the knowledge of various domains of forensics to examine the crime scene and criminal behavior to protect society.

PO-12: **Project Management and Function Effectively:** Demonstrate knowledge and understanding of Forensic Science and management principles and apply its different specializations to identify the modus operandi of criminals and investigate and manage projects related to complex crimes.

Program Specific Objectives (PSOs)

PSO-1: Graduate will be able to develop critical thinking and reasoning abilities required during handling and interpretation of diverse evidence like digital, chemistry, toxicological, biological, documents, audio/videos, dermatoglyphics, etc.

PSO-2: Graduate will be able to employ the acquired knowledge and latest AI technology during criminal investigations that are economically viable and savvy to regional, national, and global crime-related problems benefitting the respective organization and the profession.

PSO-3: Graduate will be able to detect and opine on the evidence recovered from homicidal, accidental, and suicidal cases that may involve an exhibit of dermatoglyphics, digital, anthropological, photographic, etc. in front of the judiciary or criminal justice system.