

## **DEPARTMENT OF FORENSIC SCIENCE**

## Program outcome,Program specific outcomes and course outcomes

| PROGRAMME     | <b>PO1:</b> This program provides basic   |
|---------------|---|
| OUTCOME       | knowledge of forensic and its different   |
| ( <b>PO</b> ) | specializations to identify the modus   |
|               | operandi of criminals and investigate   |
|               | complex crime.  |
|               | <b>PO2:</b> Ability to demonstrate team leadership skills through ability to set directions and teamwork skill for achieving the desired goals. |
|               | <b>PO3:</b> Ability to apply reasoning within   |
|               | the conceptual knowledge to serve as  |
|               | an expert with integrity and high   |
|               | professional ethics that can deliver  |
|               | clear, objective and unbiased opinions.   |
|               | <b>PO4:</b> Gains perceptive of ethical and professional responsibility.  |
|               | <b>PO5:</b> Train the candidate to function   |
|               | effectively as an individual and as a   |
|               | member or leader in diverse teams and   |
|               | in a multidisciplinary setting.   |
|               | <b>PO6:</b> Ability to work effectively as an   |
|               | individual, and as a member or leader   |
|               | in diverse teams, or in multidisciplinary   |
|               | domain.   |
|               |   |
|               | <b>PO7:</b> Encourage graduates to become good human beings and responsible   |
|               | good numan beings and responsible   |

|  | citizens for the overall welfare of the society.   |
|--|--|
| PROGRAMME SPECIFIC<br>OUTCOME (PSO)                        | <b>PSO1:</b> Graduates will able to develop<br>critical thinking and reasoning abilities<br>required during handling and<br>interpretation of diverse evidence like<br>digital, chemistry, toxicological,<br>biological, document, audio/videos,<br>Dermatoglyphics.   |
|  | <b>PSO2:</b> An ability to employ the techniques during criminal investigations that are economically viable and savvy to regional, national and global crime related problems benefitting respective organization and the professions.  |
|  | <b>PSO3:</b> Ability to detect and opine on<br>the evidences recovered from<br>homicidal, accidental, and suicidal<br>cases that may involve exhibit of<br>Dermatoglyphics, digital,<br>anthropological etc. in front of<br>judiciary or criminal justice system   |
| COURSE OUTCOME(CO)   |  |
| FS -101T and FS104P<br>INTRODUCTION TO FORENSIC<br>SCIENCE | <ul> <li>CO1:Students should be able to learn<br/>the basic concepts of Forensic Science.</li> <li>CO2:Know about the organization of<br/>Forensic Laboratory.</li> <li>CO3:Know about the history of<br/>Forensic science.</li> <li>CO4:Able to acquire knowledge on<br/>agencies involved in crime detection<br/>and investigation.</li> </ul> |

| FS102 T and FS105P BASIC                      | <b>CO1</b> :Understand the concents of   |
|---|--|
| FORENSIC CHEMISTRY                            | <ul> <li>CO1:Understand the concepts of atoms, molecules, covalent bonding, density, and serial dilutions.</li> <li>CO2:Know the concepts of periodic table-columns( groups) and rows(periods)</li> <li>CO3:Understand the essentials of chemistry for Forensics.</li> <li>CO4:Acquire knowledge on titrimetric analysis and basic principles of liquids and solids.</li> <li>CO5:Learn the preparation of standard solution and to know about adulteration of different essential compounds.</li> </ul>   |
| FS103T CRIMINOLOGY                            | <ul> <li>CO1:Understand the basic concepts of criminology.</li> <li>CO2:Know about the causes and types of crime and criminals.</li> <li>CO3:Understand the historical development of Indian prisons.</li> <li>CO4:Understand the historical development of victimology.</li> <li>CO5:Able to know about crime-victim genesis.</li> </ul>  |
| FS-201T and FS-204P<br>CRIME SCENE MANAGEMENT | <ul> <li>CO1:Learn the basic concepts of crime.</li> <li>CO2:Able to study types of evidence found in crime scene.</li> <li>CO3:Able to understand the safety considerations while handling evidence.</li> <li>CO4:Able to acquire knowledge on agencies involved in crime detection and investigation</li> <li>CO5:Demonstrate the technique of security and searching of indoor and outdoor crime scene.</li> <li>CO6:Able to sketch crime scene using baseline and triangulation techniques.</li> <li>CO7:Use the best technique for the</li> </ul> |

|   | collection and preservation of evidence<br>from the scene of crime.  |
|---|--|
| FS- 202T and FS -205P<br>BASIC FORENSIC BIOLOGY | <ul> <li>CO1:Understand the difference in plant and animal cell.</li> <li>CO2:Able to study the classification of kingdom plantae and kingdom Animalia.</li> <li>CO3:Able to understand about the organs and tissues of human body.</li> <li>CO4:Able to learn the basic and essentials of microbiology</li> <li>CO5:Able to understand the concept of inheritance, chromosomal karyotyping, types of mutation.</li> <li>CO6:Able to use simple and compound microscope.</li> <li>CO7:Able to prepare stained slides to observe the plant and animal cells.</li> <li>CO8:Able to familiar with the microbes and bacteria culture.</li> <li>CO9:Able to learn epithelial cells.</li> <li>CO10:Able to familiarize the basic components of blood.</li> </ul> |

| FS-203T  | <b>CO1:</b> Able to understand the   |
|--|--|
| CRIMINAL LAW                                   | organizations involved in the criminal<br>justice system.<br><b>CO2:</b> Able to point out the provisions<br>of the Indian Penal Code (IPC) with<br>respect to the offences.<br><b>CO3:</b> Appraise the provisions of the<br>Code of Criminal procedure that apply<br>to Forensic Science.<br><b>CO4:</b> Summarize the provisions of the<br>Indian Evidence act(IEA) and some<br>minor acts.   |
| FS-301T AND FS-304P<br>FORENSIC DERMATOGLYPICS | <ul> <li>CO1:To provide and understanding of dermatoglypics and its application in forensic science.</li> <li>CO2: To enable students to examine fingerprint evidence.</li> <li>CO3: Explain the fundamentals of friction ridges.</li> <li>CO4:Classify fingerprints for purpose of comparison and identification.</li> <li>CO5: To provide an understanding of dermatoglyphics and its application in forensic science.</li> <li>CO6:To enable students to examine fingerprint evidence.</li> <li>CO7:Explain the fundamentals of friction ridges</li> <li>CO8: Classify fingerprints for purpose of comparison and identification in forensic science.</li> <li>CO6:To enable students to examine fingerprint evidence.</li> <li>CO7:Explain the fundamentals of friction ridges</li> <li>CO8: Classify fingerprints for purpose of comparison and identification</li> <li>CO9:Analyse fingerprints obtained in the crime scene</li> <li>CO10:Evaluate impression evidence obtained from the scene of crime</li> </ul> |

| FS 302T AND FS 305P<br>ADVANCED FORENSIC<br>CHEMISTRY               | CO1:To provide an understanding of<br>the applications of forensic chemistry<br>CO2:To learn about the analysis of<br>substances under forensic chemistry<br>CO3:Describe the analysis of exhibits<br>encountered in forensic chemistry<br>CO4:Analyse arson and petroleum<br>exhibits<br>CO5: To prepare the TLC plates  |
|---|---|
| FS 303T AND FS 306P<br>TECHNOLOGICAL METHODS<br>IN FORENSIC SCIENCE | <ul> <li>CO1: To provide an understanding of the working principles of forensic instruments</li> <li>CO2:Explain the working and applications of microscopy</li> <li>CO3:Differentiate between the types of chromatography.</li> <li>CO4: To examine various biological and chemical samples using gel electrophoresis</li> <li>CO5:To learn the interpretation of spectrogram</li> <li>CO6:To learn epithelial cells.</li> </ul> |
| FS 401T AND FS 404P<br>QUESTIONED DOCUMENT                          | CO1:To learn about the discipline of<br>questioned document examination<br>CO2:To train students in the analysis<br>of questioned documents.<br>CO3:Describe the examination of<br>questioned documents<br>CO4:Point out the characteristics of<br>signature and handwriting<br>CO5:Evaluate cases related to<br>questioned document examination  |

| FS 402T AND FS 405P | <b>CO1</b> :To enable students to evaluate     |
|---------------------|--|
| ADVANCED FORENSIC   | and analyse biological evidence                |
| BIOLOGY             | <b>CO2</b> :Describe the forensic significance |
|                     | of blood and body fluids                       |
|                     | <b>CO3:</b> Analyse hair samples               |
|                     | encountered in crime investigation             |
|                     | <b>CO4</b> : Appraise the importance of        |
|                     | botanical evidence                             |
|                     | <b>CO5</b> :Hypothesize the reconstruction of  |
|                     | the crime scene using blood pattern            |
|                     | analysis                                       |
|                     |  |
|                     |  |
|                     |  |
|                     |  |
| FS 403T AND FS 406P | <b>CO1</b> :To orient students in the          |
| FORENSIC PSYCHOLOGY | discipline of forensic psychology.             |
|                     | <b>CO2:</b> To provide an understanding of     |
|                     | the techniques used in forensic                |
|                     | psychology & to explain the concepts           |
|                     | of psychology.                                 |
|                     | <b>CO3</b> :Illustrate the applications of     |
|                     | forensic psychology.                           |
|                     | <b>CO4:</b> Assess the relationship between    |
|                     | psychology and criminal behaviour.             |
|                     | CO5:Recommend the tools and                    |
|                     | techniques for use in forensic                 |
|                     | psychology                                     |