



**University of Management and Technology, Lahore**  
**School of Science**  
**Department of Life Sciences**  
**Certificate Course**

**Course Title:**

**“Forensic Science and Criminal Investigation”**

**Resource Person:** Mr. Rana Muhammad Mateen

**Starting Date:** June, 2023

**Duration:** Three Weeks (Wednesday and Thursday; 5-7 PM)

**Fee:** UMT Students 6000, Others 8000.

**Email:** Muhammad.mateen@umt.edu.pk

**Introduction:**

Forensic science has played a vital role in solving various criminal cases. Nowadays, modern advances in the different fields of science can provide important leads in solving various cases. The course will provide insight into the use of forensic science in evaluating the evidentiary values of various evidences. The course will also focus on how a crime scene is investigated, how the evidences are collected, and how they are analyzed to make them acceptable in a court of law. After completion of this course, learners will have a clearer knowledge of forensic science. It will not only shed light on the unexplored and unseen areas of investigation quest but will also teach how to deal with the real evidences at crime scenes.

**Objectives**

1. To explore different fields of forensic science
2. To familiarize with forensic operations in solving crimes
3. To get insight into the modern methods for crime investigations

**Learning Outcomes**

Participants will be able to

1. Learn the importance of forensic science in solving criminal cases
2. Inside into the methodology used by the forensic science laboratories

**Duration:**

Number of weeks: 03



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Number of Days: 02

Number of hours/day: 2

Total Contact Hours: 12

**Eligibility Criteria:**

The course is designed for the large audience group including graduate students (Currently enrolled in 4th semester and above), research scholars, and faculty members interested in working and researching in forensic laboratories.

**Course Outline**

1. Crime Scene Investigation and death scene investigation
2. Evidence, collection, handling, and Packaging
3. Fingerprint collection, analysis, and interpretation
4. Basics of a Polygraph examination
5. Forensic Serology and Role in a criminal investigation
6. Detection of blood, semen, and saliva
7. Forensic DNA analysis and its importance
8. Creation and interpretation of DNA analysis
9. Role of Forensic toxicology in the criminal investigation
10. Forensic pathology and its significance in determining the cause and nature of death.
11. Writing a forensic report and its different components

**Evaluation Criteria:**

Class Participation/Attendance:	20%
Quizzes:	40%
Assignments:	40%



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