University of Management & Technology
School of Science
Department of Life Science

BT-302 Fundamentals of Forensic Science

Lecture Schedule	Wednesday (08:00 AM -09:15 PM) Saturday (08:00 AM – 09:15 PM)	**Semester**	Spring 2021
Pre-requisite	---	**Credit Hours**	3
Instructor	Mr. Rana Muhammad Mateen	**Contact**	Muhammad.mateen@umt.edu.pk
Office	2S-45	**Office Hours**	See office window

Course Description

Forensic science is the application all the sciences for the support of justice system. It provides important clues regarding investigation of the cases. It not only provides scientific basis for solving a crime but also helps judiciary system for making decisions. This course will cover basic domains of the forensic science and its role in solving criminal cases. Many concepts regarding crime scene investigation, forensic fingerprint analysis, question documents, firearm analysis, forensic DNA, forensic serology and many other related will be discussed with reference to identification of the crime scene evidence and their impact on justice system.

Expected Outcomes

Upon completion of this in-depth course on bioenergetics and metabolism, students should have mastered the concepts, and skills and can be able to:

1. Scientific basis of criminal investigation.
2. Process of evidence collection, processing, identification and presentation in the court.
3. Extrapolate how important forensic science is in solving criminal cases.

Textbook(s)

1. Saferstein, R. (2014). Criminalistics: An introduction to forensic science.
2. Butler, J. M. (2009). *Fundamentals of forensic DNA typing*. Academic press.

Grading Policy

- Quizzes 15%
- Assignment 20%
- Presentation/Project 05%
- Mid-term exam 25%
- Final Exam 35%

Course Schedule

WEEK	LECTURE	TOPICS
1	1 2	History and nature of Forensic Sciences
2	1 2	Physical evidence and criminal justice system Crime Scene Investigation
3	1 2	Death Investigation Polygraph Examination
4	1 2	Latent Finger Print Analysis
5	1 2	Trace Evidence Analysis
6	1 2	Fire and Explosive examination
7	1 2	Biological Evidence (Forensic Serological examination)
8	1 2	**MID TERM EXAM** **PAPER REVIEW**
9	1 2	Forensic DNA Analysis
10	1 2	Forensic Pathology
11	1 2	Forensic Toxicology Narcotics and illicit Drugs
12	1 2	Questioned Documents
13	1 2	Firearms and Tool Marks
14	1 2	Advances in forensic sciences
15	1 2	Recent trends in forensic sciences