SN	Program Code- BS214	Course Title	L	T	P	CH	Course Type*
1	**Course Code- FSO-306**	Fundamentals of Forensic Science	3	0	0	3	OE
PRE-REQUISITE		10+2 with sciences					
CO-REQUISITE							
ANTI-REQUISITE							

a) **Course Description**

This course begins with the basics of Forensic Science that involves its history, need, scope, significance and principles. The students are then introduced about the different types of forensic evidences, forensic report, recent trends and the administration and organizational set ups of Forensic establishments in India as well as in Abroad.

b) **Course Objectives**

1. To give an exposure to the students about the basics of Forensic Science, it's laws and principles.
2. To familiarize the students about the different types of evidences involved in forensic investigations and about the presentation of forensic report in the court.
3. To give knowledge to the students about various Forensic laboratories and Academic centers of Forensic Science.

c) Course Outcomes

On completion of this course, the students are expected to learn-

CO1	The History and laws of Forensic Science
CO2	The different type of evidences and their Investigation procedure
CO3	The divisions in a forensic science laboratory and the working of the forensic establishments

d) Syllabus

Unit-1	**Basics of Forensic Science : History, Need, Scope, Laws & Principles**	**Contact Hours: 15**
Chapter 1.1	Definition, History and Development of Forensic Science, Divisions of forensic science, Scope and Need of Forensic Science in Present Scenario.	
Chapter 1.2	Law of Exchange (Locard's Exchange Principle), Law of Individuality, Law of Comparison, Law of Progressive Changes and Law of Probability.	
Chapter 1.3	Role and duties of Forensic Scientist, Applications and Significance of Forensic Investigation in Civil and Criminal Cases.	
Unit-2	**Forensic Evidences & Forensic Report: Physical, Biological and Chemical Evidences, Tool marks and Trace Evidences**	**Contact Hours: 15**
Chapter 2.1	Definition & Importance of physical, biological & chemical evidences, collection and examination of Evidences in civil and criminal cases.	

Chapter 2.2	Location, Collection & Evaluation of various types of Tool Marks & Trace Evidences (Paint, Soil, Glass, Detective Dyes, GSR etc.)	
Chapter 2.3	Forensic Expert, Forensic Report, Formats of Forensic Report, Court Testimony, Pre-Court Preparations & Court appearance, Examination in chief, Cross Examination and Re-examination, Ethics in Forensic Science	
Unit-3	**Forensic Laboratories, Academic Centers and Recent trends**	**Contact Hours: 15**
Chapter 3.1	Administration and Organizational Setup of DFSS, CFSL, GEQD, SFSL, RFSL.	
Chapter 3.2	Organizational setup and Hierarchy of MFSL, FPB, NICFS, CDTS, NCRB, BPR&D	
Chapter 3.3	Recent Trends in Forensic Science: Forensic Genetics, Environmental Forensic, Geo-Forensics, Bioterrorism, Biometrics in Personal Identification	

e) Text Books:

1. R. Saferstein, Criminalistics, 8th Edition, Prentice Hall, New Jersey (2004).
2. W.J. Tilstone, M.L. Hastrup and C. Hald, Fisher's Techniques of Crime Scene Investigation, CRC Press, Boca Raton (2013).

f) Reference Books:

1. B.B. Nanda and R.K. Tiwari, Forensic Science in India: A Vision for the Twenty First Century, Select Publishers, New Delhi (2001).
2. M.K. Bhasin and S. Nath, Role of Forensic Science in the New Millennium, University of Delhi, Delhi (2002).
3. S.H. James and J.J. Nordby, Forensic Science: An Introduction to Scientific and Investigative Techniques, 2nd Edition, CRC Press, Boca Raton (2005).
4. W.G. Eckert and R.K. Wright in Introduction to Forensic Sciences, 2nd Edition, W.G. Eckert (ED.), CRC Press, Boca Raton (1997).

g) Assessment Pattern- internal and External

The performance of students is evaluated as follows:

	Theory		
Components	**Internal Assessment**	**Mid Term Assessment**	**End Term Assessment**
Marks	**20**	**20**	**60**
Total Marks	**100**		

Internal Evaluation Component

S.no.	Type of Assessment	Weightage of actual conduct	Frequency of Task	Final Weightage in Internal Assessment	Remarks

1.	Assignment*	10 marks	1 per Unit	10 marks	
2.	Time Bound Surprise Test	12 marks for each test	1 per Unit	4 marks	
3.	Quiz	4 marks for each quiz	20per Unit	4 marks	
4.	Mid Semester Test*	20 marks for MST	2 per semester	20 marks	
5.	Presentation**			Non-Graded: Engagement Task	Only for self-study MNG courses
6.	Attendance and Engagement Score on BB	NA	NA	2 marks	

h) CO-PO Mapping

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	1	1	1	1	1	2	2	0	3	2	2	2	2	3
CO2	3	1	2	1	0	0	2	2	0	2	0	0	1	2	3
CO3	3	0	2	2	0	0	3	3	0	3	2	3	2	0	1