



Curriculum Framework for Undergraduate

BA/BSc IN CRIMINOLOGY AND FORENSIC SCIENCE (V and VI Semester Syllabus)

October 2023, Bengaluru

Composition of Expert Committee Members

SN	Name & Organization	Designation
1	Prof. S Y Surendra Kumar, Chairperson, Department of Political Science, Bangalore University	Chairperson
2	Prof. Suresh Nadagoudar, Dean Faculty of Law, Bangalore University	Member
3	Prof. V. Sudesh, University Law College, Bangalore University	Member
4	Prof. Harini, Department of Zoology, Bangalore University	Member
5	Dr. Nagaraja Murthy, B, (Retd) Professor, Mysuru	External Member
6	Dr. S. M. Jamadar, IAS (Retd) School of Criminality and Social Justice, Rani Channamma University, Belgaavi	External Member

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Date: 18 October 2023

**Proceedings of the Expert Committee to frame Syllabus (5th and 6th) for
BA/BSc in Criminology and Forensic Science**

The Member of the Expert Committee finalised and approved the 5th and 6th Semester Syllabus for BA/BSc in Criminology and Forensic Science on 18th October 2023, at the Department of Political Science, Bangalore University, Bengaluru. Following members were present:

SN	Name & Organization	Signature
1	Prof. S Y Surendra Kumar, Chairperson, Department of Political Science, Bangalore University	
2	Prof. Nadagoudar, Dean, Faculty of Law, Bangalore University	
3	Prof. V. Sudesh, University Law College, Bangalore University	
4	Prof. Harini, Department of Zoology, Bangalore University	
5	Dr. Nagaraja Murthy, B, (Retd) Professor, Mysuru	
6	Dr. S. M. Jamadar, IAS (Retd) School of Criminality and Social Justice, Rani Channamma University, Belgaavi	- Absent -

18/10/2023

PROFESSOR, DEPARTMENT OF POLITICAL SCIENCE
BANGALORE UNIVERSITY
BANGALORE - 560 056.

**Listing of Courses from V and VI Semesters
for Undergraduate Program in Criminology & Forensic Science**

Sem. No.	Course Category	Course Code	Course Title	Credits Assigned	Instructional hours per week		Duration of Exam (Hrs.)	Exam/ Evaluation Pattern (Marks)		
					Theory	Practical		IA	Exam	Total
V	DSC	CFS C9-T	Medical Jurisprudence and Toxicology	4	4		2	40	60	100
		CFS C10-P	Medico-legal Examination	2		4	3	25	25	50
		CFS C11-T	Digital Forensics and Cybercrime	4	4		2	40	60	100
		CFS C12-P	Digital Forensics Examination	2		4	3	25	25	50
		CFS C13-T	Juvenile Justice	4	4		2	40	60	100
	DSE (Anyone to be chosen)	CFS E1-T	A. Victimology B. Community Policing C. Forensic Biology and Serology	3	3		2	40	60	100
	Vocational (Anyone to be chosen)	CFS V1-T	A. Fingerprint Examination B. Forensic Instrumentation C. Laboratory Quality Management	3	3		2	50	50	100
VI	DSC	CFS C14-T	Forensic Dactyloscopy and DNA Fingerprinting	4	4		2	40	60	100
		CFS C15-P	Examination of Fingerprints and Footprints	2		4	3	25	25	50
		CFS C16-T	Corporate Crimes	4	4		2	40	60	100
		CFS C17-P	Examination of Frauds and Corporate Crimes	2		4	3	25	25	50
		CFS C18-T	Forensic Photography	4	4		2	40	60	100
	DSE (Anyone to be chosen)	CFS E2-T	A. Transnational Organized Crime B. Forensic Psychology C. Social Problems and Crime	3	3		2	40	60	100
	Vocational (Anyone to be chosen)	CFS V2-T	A. Forensic Document Examination B. GIS and GPS in Crime Analysis C. Crime Prevention and Environmental Design	3	3		2	50	50	100



Semester V

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	V
Course Title	Medical Jurisprudence and Toxicology (Theory)		
Course Code:	CFSC9T	No. of Credits	4
Contact hours	4 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Pre-requisite(s):	
<p>Course Outcomes(COs): After the successful completion of the course, the student will be able to:</p> <p>CO1. To understand the basics of Medical Jurisprudence and Toxicology CO2. Demonstrate the medico-legal importance of Death. CO3. To familiarize with the poisons and their effects on human body. CO4. To Familiarize with autopsy and its importance.</p>	
Contents	60 Hrs
Unit- I Medical Jurisprudence and Toxicology	15 hours
Chapter- I Introduction to JURISPRUDENCE <ul style="list-style-type: none"> • Meaning and definition • Legal And Ethical Aspects Of Practice Of Medicine • The Indian Medical Council and State Medical Council: Formation, Functions • Rights, Privileges and Duties of Registered Medical Practitioners. • Infamous conduct, Professional secrecy and privileged communications, Medical Ethics and prohibition of Torture & care of Torture Victims • Consent – Its relevance in Medical Practice & medical record maintenance. Chapter- II MEDICAL JURISPRUDENCE <ul style="list-style-type: none"> • Medical Negligence and contributory negligence, Precautionary measures and defenses for Medical Practitioners against legal actions, Medical/Doctors indemnity insurance, Consumer Protection Act relevant to medical practice. • Euthanasia – Current views and dilemmas, Different codes of Medical Ethics and Ethics in Research. • Common medico-legal problems in Hospital practice, Medico-legal, ethical & social problems in relation to AIDS. 	
Unit- II Introduction to forensic medicine	15 Hrs
Chapter- 3 Meaning of forensic medicine, <ul style="list-style-type: none"> • Definition, Scope Relevant forensic medicine • History of Forensic Medicine • Need, Scope, Importance and probative value of medical evidence in Crime Investigation 	

<p>Chapter- 4 Thanatology</p> <ul style="list-style-type: none"> • Thanatology, death, its causes, stages of death, signs of death and changes following death, Asphyxia and accidents, • Death due to heat, cold and electrocution • Injuries classification and medico legal aspects • Sexual offences • Forensic psychiatry 	
<p>Unit-III Forensic Toxicology</p>	15 Hrs
<p>Chapter – 5 Introduction to Toxicology</p> <ul style="list-style-type: none"> • Introduction to Toxicology • Epidemiology of poisoning • General consideration and Laws in relation to poisons / Narcotic drugs and Psychotropic substances Act, • Duties and Responsibilities of attending Physician. • Basics of Environmental and Industrial Toxicology in relation to Health & Ecology; • Common poisons and their classification, Identification of common poisons, • Analytical Toxicology (Principles: Bedside & Common Lab. Tests), Collection, Preservation and Dispatch of Viscera to FSL • Regulatory Toxicology for prevention of Hazards to Health and Ecology. <p>Chapter- 6 CORROSIVE & IRRITANT POISONS:</p> <ul style="list-style-type: none"> • Inorganic Corrosives- Sulphuric, Nitric & Hydrochloric Acid • Organic Corrosives- Phenol, Oxalic Acid • Inorganic Non-Metallic Irritants- Phosphorus, Halogens, Inorganic Metallic Irritants- Arsenic, Lead, Mercury, Copper • Organic Vegetable Irritants- Abrus, Castor, Croton, Calotropis, Semicarpus, Ergot. • Organic Animal Irritants – Snake Bite, Scorpion & other common insect bites diagnosis and Management; Medicolegal Aspects • Mechanical Irritants- diagnosis and treatment & Medicolegal Aspects 	
<p>Unit-IV Major Poisons</p>	15 Hrs
<p>Chapter -7 Neurotoxic</p> <ul style="list-style-type: none"> • Inebriates- Ethyl Alcohol, Methyl Alcohol • Somniferous and Sedative Hypnotics – Opium and Derivatives, Barbiturates • Deliriant- Dhatura, Cannabis, Cocaine. • Insecticides/ Pesticides/ Agrochemical- Organo-phosphorus Compounds. Organo-chlorides, Carbamates Pyrethroids, Aluminium phosphide. • Spinal Poisons- Strychnine • Peripheral Poisons- Curare <p>Chapter -8 Asphyxiants and Other Poisons</p> <ul style="list-style-type: none"> • ASPHYXIANTS (GASES)- Carbon monoxide, Carbon Dioxide, Cyanogens and Cyanides • CARDIAC POISONS- Oleanders, Aconite, Tobacco • OTHER POISONS: Domestic/ Household Poisons- Kerosene, Detergents, Disinfectants, Cosmetics, Rodenticide mothballs etc. . Therapeutic Drug Toxicity/ poisoning by Medicines- Salicylates, Paracetamol, Newer derivatives of sedatives Food Poisoning- Bacterial, Viral, Mushrooms, Chemical etc. iv. Drugs of dependence and Drug Abuse. 	

References-Suggested Readings	
1	Andrew R.W.Jackson, Julie M Jackson, 2011, " Forensic Science", Pearson Education Limited.
2	B.S.Nabar , 2001, forensic science in Crime Investigation", Asia law House.
3	J C Upshaw Downs, Anjali Ranadive, Swienton , 2002, "Ethics in Forensic Science, Academic Press Publications.
4	Jay A Siegel, KatheyMirakovits, 2013, " Forensic Science: The Basics", CRC press.
5	Jim Fraser, Robin Williams, 2013,"Hand book of Forensic Science", Routldge publications.
6	Max.M.Houck, Jay A Siegal,2010, "Fundamentals of Forensic Science" Academic Press.
7	Andrew R.W.Jackson, Julie M Jackson, 2011, " Forensic Science", Pearson Education Limited.
8	B.S.Nabar , 2001, forensic science in Crime Investigation", Asia law House.
9	J C Upshaw Downs, Anjali Ranadive, Swienton, 2002, "Ethics in Forensic Science, Academic Press Publications.
10.	Jay A Siegel, KatheyMirakovits, 2013, " Forensic Science: The Basics", CRC press.

E-Resources:

- <https://study.com/academy/lesson/physical-evidence-definition-types-law.html>
- <https://www.forensicpage.com/>
- <https://www.legalserviceindia.co m/legal/article-8572-types-and-significance-of-physical-evidence.html>
- <http://www.forensic-evidence.com/>
- <http://www.ncjrs.gov/App/AbstractDB/AbstractDBSearch.aspx>

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
1. Disciplinary knowledge and skills	X	X	X	X			
2. Skilled communicator	X	X	X	X			
3. Critical thinker and problem solver	X	X	X	X			
4. Team player/worker	X	X	X	X			
5. Skilled project manager	X	X	X	X			
6. Digitally literate		X		X			
7. Analytical reasoning	X	X	X	X			
8. Research-related skills	X	X	X	X			
9. Multicultural competence	X	X	X	X			
10. Moral, Ethical & Legal reasoning	X	X	X	X			
11. Develop scientific temper and self- motivating learnings	X	X	X	X			
12. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/ Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	10	10
Total	20	20	40

Course Title	Medico-legal Examination (Practical)		Practical Credits	2
Course Code	CFSC10P		Contact Hours	60 Hrs
Formative Assessment	25 Marks	Summative Assessment	25 Marks	
Practical Content				
Unit-1 Introduction to Medico-legal Examination (30 Hrs)				
1. Medico-legal Aspects of Homicidal, Suicidal and Accidental. 2. Examination of human skeleton. 3. Identification of Sex and Age through Bone remains. 4. Examination of different wounds and Injuries.				
Unit-II Examination of Hair and Fiber (30 Hrs)				
5. Examination of hair 6. Morphology of hair 7. Examination and Comparison of Natural and Synthetic fibers				

Pedagogy: Conduct experiments, applying forensic techniques

Formative Assessment for Practical	
Assessment Occasion/type	Marks
Record	05
Plan, Procedure & Conduction	05
Results & Discussion	05
Applying Forensic Techniques	05
Viva	05
Total	25 Marks
<i>Formative Assessment are compulsory</i>	

References	
1	Andrew R.W.Jackson, Julie M Jackson, 2011, " Forensic Science", Pearson Education Limited.
2	B.S.Nabar , 2001, forensic science in Crime Investigation", Asia law House.
3	J C Upshaw Downs, Anjali Ranadive, Swienton , 2002, "Ethics in Forensic Science, Academic Press Publications.

Program Name	BA/B.Sc.in Criminology and Forensic Science	Semester	V
Course Title	Digital Forensics and Cybercrime(Theory)		
Course Code:	CFSC11T	No.of Credits	04
Contact hours	4 Hrs/week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Pre-requisite(s):

Course Outcomes(COs):After the successful completion of the course, the student will be able to:

- CO1.To understand the concept of digital evidence, collection and preservation of evidence and its significance.
- CO2.To understand the importance of Cyber Security
- CO3. Demonstrate the methods and techniques, best practices to protect against various kind of cyber- attacks.
- CO4.To familiarize with the application of Cyber laws in general.

Contents	60 Hrs
Unit- I Introduction to Digital Forensics	15 Hrs
Chapter- 1 Basics of Computer <ul style="list-style-type: none"> • Basic Computer Knowledge, types of computers, components of computer, input and output devices, operating system types. • Computer memory - Volatile and Non-Volatile memory, types of storage media – Hard Drive, SSD, Optical Devices. Chapter 2 Basics of Digital Forensics <ul style="list-style-type: none"> • Introduction and Principles of Digital Forensics, Good Forensic Practices, Daubert’s Standards. • Collection of Evidence - Single System, Networked System and Remote System. Search and Seizure of Volatile and Non-volatile Digital Evidence, Imaging and Hashing of Digital Evidences. • Introduction to Deleted File Recovery, Steganography and Steganalysis, Data Recovery Tools and Procedures. • Importance of Log Analysis in forensic analysis. • Validating Forensic Data, Addressing Data-Hiding Techniques, Performing Remote Acquisition, data carving. 	

<p>Chapter 3 Network and Mobile Forensics</p> <ul style="list-style-type: none"> • Monitoring of computer network and activities, Live Packet Capturing and Analysis. Network Intrusion, Detection and Analysis. • Network Devices – hubs, Switches, routers, repeaters. Basic HTTP, World Wide Web, Web Browsers, Web Servers, Domain Names, URL and DNS. IP addressing – types and classes. Types of Networks – LAN, MAN and WAN. • Investigating network attacks. Evidence collection from Routers & CCTV DVRs. • Mobile volatile memory analysis, memory image analysis, recovering cached and internet artifacts, internet browsing artifacts, runtime disk explorer, memory dump analyser, crash dump analyser, cryptoanalysis. • Types of Evidence present in mobile phones - Files present in SIM card, phone memory dump, and evidences in memory card. • Seizure and Preservation of mobile phones and PDA. Mobile phone evidence extraction process. • Tracking of mobile phone location. Analysis of mobile data like SMS, call logs, contacts, media files, recordings and important mobile application data. • CDR and IPDR analysis. 	
<p>Unit- II Introduction to Cybercrimes</p>	<p>15 Hrs</p>
<p>Chapter – 4 Defining Cyberspace and Cybercrimes</p> <ul style="list-style-type: none"> • Cyberspace: - Concept of Cyberspace, Emergence of Cyberspace, Nature & Meaning of Cyberspace, Attributes of Cyberspace. • Definition and Origin; Distinction between Cyber Crime and Conventional Crime • Information Technology - its meaning and importance in the daily life of people in modern societies. <p>Chapter- 5 Types of Cybercrimes</p> <ul style="list-style-type: none"> • Crimes targeting Computers: Unauthorized Access, Packet Sniffing, Malicious Codes including Trojans, Viruses, Logic Bombs, Password Sniffing, Denial-of-service (DOS) attack, Backdoors and Malwares and its types, E-mail Bombing, Salami Attack, Software Piracy, Industrial Espionage, Intruder attacks. • Cybercrimes against Individuals – E-mail spoofing and online frauds, Phishing and its forms, Spamming, Cyber-defamation, Cyberstalking, Cyber Bullying and harassment, Computer Sabotage, Pornographic offenses, Key loggers and Screener loggers. • Phases of cyber-attack – Reconnaissance, Passive Attacks, Active Attacks, Scanning, Gaining Access, Maintaining Access, Lateral movement and Covering Tracks. • Different types of tools used in cybercrime. 	
<p>Unit-III Cyber related Laws and Enforcement Agencies</p>	<p>15 Hrs</p>
<p>Chapter – 6 Regulatory Framework of Information and Technology Act</p> <ul style="list-style-type: none"> • Information Technology Act 2000 and Information Technology (Amendment) Act 2008 - Objectives, Applicability, Non-applicability, Definitions, Amendments and Limitations. • Offences Under IT Act, Offences Related with Digital Signature and Electronic Signature Under IT Act. Various cyber-crimes under Sections 43 (a) to (j), 43A, 65, 66, 66A to 66F, 67, 67A, 67B, 70, 70A, 70B, 80 etc. Penalties Under IT Act, • Regulation of Certifying Authorities, Appointment and Powers and Functions of Controller, Cyber Appellate Tribunal. 	

<p>Chapter- 7 Investigation of Cyber Crimes</p> <ul style="list-style-type: none"> • Investigation of malicious applications Agencies for investigation in India, their powers and their constitution as per Indian Laws Procedures. • Procedure for Search and seizure of digital evidences in cyber-crime incident. Forensics Investigation Process - Pre-search consideration, Acquisition, Duplication & Preservation of evidences, Examination and Analysis of evidences, Storing of Evidences, Documentation and Reporting, Maintaining the Chain of Custody. • Data Acquisition of live system, Shutdown Systems and Remote systems, servers. E-mail Investigations, Password Cracking. • Seizing and preserving mobile devices. Methods of data acquisition of evidence from mobile devices. Data Acquisition and Evidence Gathering from social media Performing Data Acquisition of encrypted systems. • Challenges and issues in cyber-crime investigation. • Intellectual Property Rights in the Cyber World. 	
<p>Unit-IV Cyber Security</p>	<p>15 Hrs</p>
<p>Chapter -9 Introduction to Cyber Security</p> <ul style="list-style-type: none"> • Evolution and Impact of Internet, Internet Services, Concept of World Wide Web, History of World Wide Web, Purpose of Web, Functioning & Mechanism of Web. • Introduction to Cyber Security. Confidentiality, Integrity and Availability – Triad. • Attacks: Threats, Vulnerabilities and Risk. Risk Management, Risk Assessment and Analysis. Information Classification, Policies, Standards, Procedure and Guidelines. • Controls: Physical, Logical and Administrative; Security Frameworks, Defence in-depth: Layers of Security. • Identification and Authentication Factors. Authorization and Access Controls- Models, Methods and Types of Access Control. <p>Chapter – 10 Network Architecture & Security</p> <ul style="list-style-type: none"> • Network Scanning, Eaves dropping techniques and counter measures. Network security including firewalls. Networks and vulnerabilities, networking software - Client side and server side, secure network infrastructure, security protocol layers create usage policy, conduct risk analysis, security violation and restoration. • Network security zone, encapsulation of network services, allocation of traffic control functions. • DNS Enumerations, Analysis of Deep web/ dark web. • IP security architecture, Security protocols, IPSec, Web Security – Firewalls, IDS IDPS – Types and Technologies. • Authentication Mechanisms: Passwords, Cryptographic authentication protocol, Kerberos, X.509 LDAP Directory. Digital Signatures. Web Security: SSL Encryption, TLS, SET. Intrusion detection. 	

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
1. Disciplinary knowledge and skills	X	X	X	X			
2. Skilled communicator	X	X	X	X			
3. Critical thinker and problem solver	X	X	X	X			
4. Team player/worker	X	X	X	X			
5. Skilled project manager	X	X	X	X			
6. Digitally literate		X	X				
7. Analytical reasoning	X	X	X	X			
8. Research-related skills	X	X	X	X			
9. Multicultural competence	X	X	X	X			
10. Moral, Ethical & Legal reasoning	X	X	X	X			
11. Develop scientific temper and self-motivating learnings	X	X	X	X			
12. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	10	10
Total	20	20	40

References	
1	Matt Bishop, "Computer Security Art and Science", Pearson/PHI, 2002.
2	Nina Godbole and Sunit Belapore; "Cyber Security: Understanding Cyber Crimes, Computer Forensics and Legal Perspectives", Wiley Publications, 2011.
3	Michael E Whiteman and Herbert J Mattord; "Principles of Information Security", Vikas Publishing House, New Delhi, 2003.
4	Harish Chander; "Cyber Laws and IT Protection", PHI Learning Pvt. Ltd, 2012.
5	Vakul Sharma; "Information Technology: Law and Practice", Universal Law Publishing Co., India, 2011.
6	Bill Nelson, Amelia Phillips and Christopher Steuart; "Guide to Computer Forensics and Investigations" – 3rd Edition, Cengage, 2010 BBS.
7	LNJN National Institute of Criminology and Forensic Science, "A Forensic Guide for Crime Investigators – Standard Operating Procedures", LNJN NICFS, 2016.
8	Cory Altheide and Halan Carvey; "Digital Forensics with Open Source Tools", Syngress Publication.
9	Sherri Davidoff and Jonathan Ham; "Network Forensics – Tracking Hackers through Cyberspace", Pearson Publications, 2012.
10	Aaron Philipp, David Cowen, Chris Davis; Hacking Exposed Computer Forensics Second Edition, McGraw Hill, USA, 2010.

Web Sources:

- <https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=MVs9IY38j6bxSw+ryrjUow==>
- <https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=MVs9IY38j6bxSw+ryrjUow==>
- <https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=MVs9IY38j6bxSw+ryrjUow==>
- <https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=MVs9IY38j6bxSw+ryrjUow==>
- <https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=MVs9IY38j6bxSw+ryrjUow==>
- <https://www.investopedia.com/terms/c/cloud-computing.asp>
- <https://online.maryville.edu/blog/cyber-crime-investigation>

Course Title	Digital Forensic Examination-II (Practical)	Practical Credits	2
Course Code	CFSC12P	Contact Hours	60 Hrs
Formative Assessment	25 Marks	Summative Assessment	25 Marks
Practical Content			
Unit-I Introduction to Digital Forensic Examination (30Hrs)			
<ol style="list-style-type: none"> 1. Encrypting and decrypting the partition using Bit locker 2. Analyzing hidden files and folders including slack space for evidence. 3. Understanding Network Devices: Modem, Router, Switch, Hub, Repeater 4. Email and IP Tracking Techniques 			
Unit-II Examination Digital Data Sources (30Hrs)			
<ol style="list-style-type: none"> 5. Understanding Data Packet Sniffers 6. Open-Source Forensic Tools 7. Disk Forensics and Data Recovery 			

Pedagogy: Conduct experiments, applying forensic techniques

Formative Assessment for Practical	
Assessment Occasion/type	Marks
Record	05
Plan, Procedure & Conduction	05
Results & Discussion	05
Applying Forensic Techniques	05
Viva	05
Total	25 Marks
<i>Formative Assessment are compulsory</i>	

References	
1	LNJN National Institute of Criminology and Forensic Science, "A Forensic Guide for Crime Investigators – Standard Operating Procedures", LNJN NICFS, 2016.
2	Cory Altheide and Halan Carvey; "Digital Forensics with Open Source Tools", Syngress Publication.
3	Sherri Davidoff and Jonathan Ham; "Network Forensics – Tracking Hackers through Cyberspace", Pearson Publications, 2012.

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	V
Course Title	Juvenile Justice (Theory)		
Course Code:	CFSC13T	No. of Credits	04
Contact hours	4 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Pre-requisite(s):	
Course Outcomes(COs): After the successful completion of the course, the student will be able to: CO1: Understand the concept of juvenile deviance and its brief history. CO2: Explain the current situation of JD in India in comparison to developed countries. CO3: Understand the various theories of deviancy. CO4: Develop the knowledge regarding the relevant laws, institutions dealing with juvenile deviants.	
Contents	60 Hrs
Unit- I Introduction to Juvenile Justice	15 Hrs
Chapter- 1 Meaning and Definition <ul style="list-style-type: none"> • Juvenile Justice. • Deviance. • International perspectives on juveniles (in developing countries). Chapter 2 Rights of the Child. <ul style="list-style-type: none"> • Basic rights – Child rights as human rights – United Nations Convention on the Rights of the Child (UNCRC) • Legal protection for children – Fundamental rights as defined by the Constitution of India. • National Commission for protection of child rights – State Commission for the protection of child rights. • Riyadh Guidelines. 	
Unit- II Theories of Juvenile Deviancy.	15 Hrs
Chapter – 3 General Factors <ul style="list-style-type: none"> • Economic Factors • Social Factors • Psychological Factors • Genetic factors 	

<p>Chapter- 4 Specific Factors.</p> <ul style="list-style-type: none"> • Street gangs and deviancy as a result of Differential Association. • Social Disorganization, Broken Homes and Deviancy. • Broken Window Theory of Deviancy. • Impact of mass media on juveniles: Bandura and Imitation Theory, Glaser and Identification Theory. • Learning Theories; Criminal Opportunity Theory; Sub culture Theories. 	
<p>Unit-III Laws Relating to Deviant Behaviour of Juveniles.</p>	<p>15 Hrs</p>
<p>Chapter – 5 History of Juvenile Justice Act.</p> <ul style="list-style-type: none"> • Early History of JJ in India up to 2015: Joint Family system and typical Varnashram beliefs and duty towards children. • Juvenile Justice introduced by the British-on-British model at the provincial level in India. • Apprenticeship Act, Reformatory Schools Act, Children Acts of 1920s and 1930s; Borstal Schools Acts, Central Children Act 1960, JJ Act 1986, JJ Act 2000, JJ Act 2015 (care and protection act). <p>Chapter- 6 Legal frameworks.</p> <ul style="list-style-type: none"> • Conceptual clarity on Legal frameworks (POCSO, ITPA, Child Labour Act, Information Technology Act, Child Marriage Act) • Familiarization of various other laws relating to children in India. • Identifying appropriate practitioners/stakeholders (includes special educators, translators, interpreters, psychologists and psychiatrists). 	
<p>Unit-IV Institutions in India for Children’s.</p>	<p>15 Hrs</p>
<p>Chapter -7 Institutions in India for Children in Conflict with Law (CICWL)</p> <ul style="list-style-type: none"> • Juvenile Justice Board (JJB): Composition of the Board – Powers, functions and responsibility. • Procedure in relation to children in conflict with law – Special focus on Section 15 (Preliminary assessment in heinous offences). • Powers of children’s court – Observation homes – Special home – Borstal school – Special juvenile police unit – Managing the unrest of children in child care institutions – Managing deviant behaviour in juvenile justice institutions. <p>Chapter – 8 Institutions in India for Children in Need of Care and Protection (CINOCAP)</p> <ul style="list-style-type: none"> • Child Welfare Committee (CWC): Composition of the Committee, Powers, functions and responsibility. • Procedure in relation to children in need of care and protection – Open shelter – Place of safety – Foster care – Children’s/Shelter homes – Institutions’ roles (public/private) – Adoption and sponsorship of children. 	

Chapter – 9 Juvenile Justice Process.	
<ul style="list-style-type: none"> • Pre-trial, trial and sentencing – Probation – Juvenile deterrence practices – Rehabilitation and social re-integration – After care programs – Nature and role of diversion programs – Disposition process • Social Investigation and Reporting and its impact on rehabilitation – Individual Care Plan (ICP) – Legal and ethical role, Communication skills and attitudes (move away from apathy to empathy) of Practitioners (Special Juvenile Police Unit) in pre-trial and during trial for timely disposition of cases and forensic investigations/interviewing • Role of families/guardians (support persons) in the trial and post-trial process – Repatriation – Child friendly atmosphere to be initiated and implemented in courts (JJB and CWC) and police stations – Best practices (Local and International) – Do's and Don'ts. 	

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1	Krishna Pal Malik (2011) " <i>Penology, Victimology, and Correctional Administration in India</i> " Allahabad Law Agency, Hariyana
2	Siegel J Larry (2006) " <i>Criminology 9th Edition</i> " Thomas Publications, USA.
3	Johnson, H. M., (1960), ' <i>Sociology: A Systematic Introduction</i> ', Allied Pub. New Delhi.
4	Ashoka (2014) " <i>Samagra Aparadha Vidhnyana</i> " Sudha Publications, India.
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E-Resources:

- https://sg.inflibnet.ac.in/bitstream/10603/222579/4/04_chapter%201.pdf
- <https://study.com/academy/lesson/what-is-juvenile-delinquency-definition-theories-facts.html>
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- <https://shodhgangotri.inflibnet.ac.in/handle/123456789/3412>
- https://en.wikipedia.org/wiki/Child_abuse
- <https://www.unicef.org/child-rights-convention/child-rights-why-they-matter>
- https://shodhganga.inflibnet.ac.in/bitstream/10603/66825/19/19_conclusion%20and%20suggestions.pdf

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
1. Disciplinary knowledge and skills	X	X	X	X			
2. Skilled communicator	X	X	X	X			
3. Critical thinker and problem solver	X	X	X	X			
4. Team player/worker	X	X	X	X			
5. Skilled project manager	X	X	X	X			
6. Digitally literate	X	X	X	X			
7. Analytical reasoning	X	X	X	X			
8. Research-related skills	X	X	X	X			
9. Multicultural competence	X	X	X	X			
10. Moral, Ethical & Legal reasoning	X	X	X	X			
11. Develop scientific temper and self-motivating learnings	X	X	X	X			
12. Lifelong learner	X	X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	10	10
Total	20	20	40

SUGGESTED TOPICS

1. Crime in urban and rural areas.
2. Railway crimes.
3. Study on violent crimes.
4. Prison administration.
5. Police administration.
6. Police training.
7. Police-Community relations
8. Police help-line.
9. Forest crimes.
10. Criminal personality tendencies- groups; tribes.
11. P.O. Act- released offenders on probation.
12. Prisoners Act- Released convicts.
13. Victims of Crime.
14. Communal violence.
15. Juveniles in conflict with law.
16. Child labor.
17. Drug abuse
18. Voluntary agencies.
19. Ragging.
20. Economic offences.
21. Cyber crimes.
22. Prostitution- sex workers.
23. Human Rights.
24. Female criminality.
25. Crimes against women.
26. Crimes against children.
27. Mass media and crime.
28. Case Studies.
29. Pornography.
30. Crimes against weaker sections.
31. Habitual Criminals
32. Consumer Protection.

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	V
Course Title	Victimology (Theory)		
Course Code:	CFSCE1T-A	No. of Credits	03
Contact hours	4 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Pre-requisite(s):	
Course Outcomes(COs): After the successful completion of the course, the student will be able to: CO1: This course provides exhaust knowledge of victimology and victimization CO2: It enables students to analyze the characteristics and factors that correlate with victimization. CO3: Evaluates what the criminal justice system is doing (or not doing) for crime victims. CO4: It creates awareness about various schemes of victim's assistance across globe and India.	
Contents	45 Hrs
Unit- I Introduction to Victimology	15 hours
Chapter- 1 Development of victimology as a science <ul style="list-style-type: none"> • Meaning, definition, history and scope • Concept of victims in Jews, Islam, Ancient India and Democratic society Chapter- 2 Victim- Offender Relationship <ul style="list-style-type: none"> • Penal couple: Meaning, • Victim Precipitation, Abetment and participation • Innocent Victims: Meaning and types • Victim proneness • Victim vulnerabilities and categorical risks • Age-related vulnerability • Gender-related victims 	
Unit- II Victimological Theories	15 Hrs
Chapter- 3 Major Theories <ul style="list-style-type: none"> • Luckenbill's (1977) Situated Transaction Model (action-clarification-reaction-counteraction-presence of weapon/situation-presence/absence of onlookers-victimization/crime). • Benjamin and Master's Threefold Model; Precipitating Factors, Attracting Factors, Predisposing Factors. • Cohen and Felson's Routine Activities Model: Suitable Targets, Motivated Offender, Absence of guardian. • Broken Window Theory • Propinquity Hypothesis, Proximity Hypothesis, Familiarity Hypothesis, Power Asymmetry Hypothesis (of Feminists). 	

<p>Chapter-4 Psychological Typologies of Victim Reactions</p> <ul style="list-style-type: none"> • “Just World Syndrome and Blaming the Victim” (victim depression). • “Fundamental Attribution Error and Blaming the Situation” (partly responsible victim). • “Dunning-Kruger Effect and Inviting Victimization” (victim precipitation). • “Actor-Observer Bias and Blaming the Victim” (innocent victim). • “Battered Person Syndrome and repeat Victimization/ Bashing the Victimizer”. • “Stockholm Syndrome” and siding with the victimiser (power asymmetry)/ mutual attraction. • Clandestine Victimization and unreported Victimization/Crime: Part-blame/ Rational choice. <p>Chapter- 5 Classification by Victimologist</p> <ul style="list-style-type: none"> • Benjamin Mendelsohn • Hans Von Hentig • Abdul Fatah • General Classification: Age related Vulnerability, Gender-related victims, Caste system and the Untouchables, Race, Slavery and Apartheid, Poor classes and Bonded labour, Minorities and Majorities. 	
<p>Unit-III Victims in CJS and victim assistance</p>	<p>15 Hrs</p>
<p>Chapter- 6 Victims and CJS</p> <ul style="list-style-type: none"> • Police and the Victim as a complainant, as a witness interrogating with suspicion, police perception depending upon victim precipitation/felicitation • Victim and the Court examination in chief, cross examination, re-examination: court room drama and victim trauma as a public display; no role in deciding punishment; no role in appeal; restitution and compensation in ancient reparation • Corrections: no involvement of victim; parole/probation conditions of victim safety. <p>Chapter- 7 Crime Victim Compensation and Victim Assistance and Advocacy</p> <ul style="list-style-type: none"> • Costs of Crime and their impact on the victim/ victim family; New Zealand Experiment in Victim Compensation (1960), British Scheme of Victim Compensation (1964), US Schemes of Victim Compensation, Japan’s New Scheme of Victim Compensation, South African Victim Compensation Scheme. • Victim Compensation in India: Sections 357, 357A and 357B of Cr.P.C.; Atrocity Victims’ Compensation, Motor Vehicle Accident Cases Victim Compensation; Calamity Victim Compensation; Rape Victim Compensation; Miscellaneous Compensation Schemes. Victim Assistance: Crisis Centre, Medical Care, Mental trauma and Psychological; counseling, Social Support services; • Advocacy Movements Local, National and International • UN Declaration of Basic Principles of Justice for Victim of Crime and Abuse of Power (G.A. 40/34 on 29th Nov. 1985) • UN Guidelines on Witness Protection; • Measures for Witness Protection in India 	

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2	Bonnic S Fisher, Steven P Lab, 2010, "Encyclopedia of Victimology and Crime Preventions" Vol I, Sage Publications Inc
3	Brent E. Turvey, 2013, "Forensic Victimology" Academic Press.
4	Emilio Viano, 1992, "Critical Issues in Victimology: International Perspective", Springer Publications
5	Emilio Viano, 1991, Victims' rights and Legal Reforms, Onati IIO.S.L.
6	Hans Joachin Schneider, 1982, "The Victims in International perspective", Walter De Gryter Pub
7	Israel Drapkin, Emilio Viano, 1974, "Victimology" Lexington Books.
8	M.C. Gupta, K. Chockalingam & Jaytilak Guha Roy (Editors 2001) – Child Victims of Crime – Problems and Perspectives, Gyan Publishing House, New Delhi-02.

E-Resources:

- <https://lexpeeps.in/rights-of-victim-under-criminal-justice-system-in-india/?amp=1>
- [https://criminallawstudiesnluj.wordpress.com/2021/03/06/victim-assistance-in-India-broadening-the-scope-of-victim-reparations-in-the-criminal-justice-system./](https://criminallawstudiesnluj.wordpress.com/2021/03/06/victim-assistance-in-India-broadening-the-scope-of-victim-reparations-in-the-criminal-justice-system/)
- <https://www.rainn.org/articles/crime-victim-compensation>
- <http://www.nzdl.org/gsdImod?e=d-00000-00---off-0cdl--00-0----0-10-0---0---0direct-10---4-----0-0l--11-en-50---20-about---00-0-1-00-0--4---0-0-11-10-0utfZz-8-00&cl=CL2.8&d=HASH0a79e36697c934fa21e31a.5>=1>
- <https://www.dps.ms.gov/investigation/victim-assistance-program>
- <https://www.courts.ca.gov/1107.htm?rdeLocaleAttr=en>
- <https://journals.sagepub.com/home/irv>
- <https://journals.sagepub.com/home/vvj>

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
1. Disciplinary knowledge and skills	X	X	X	X			
2. Skilled communicator	X	X	X	X			
3. Critical thinker and problem solver	X	X	X	X			
4. Team player/worker	X	X	X	X			
5. Skilled project manager	X	X	X	X			
6. Digitally literate		X		X			
7. Analytical reasoning	X	X	X	X			
8. Research-related skills	X	X	X	X			
9. Multicultural competence	X	X	X	X			
10. Moral, Ethical & Legal reasoning	X	X	X	X			
11. Develop scientific temper and self- motivating learnings	X	X	X	X			
12. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/ Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	10	10
Total	20	20	40

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	V
Course Title	Community Policing (Theory)		
Course Code:	CFSE1T-B	No. of Credits	03
Contact hours	3 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Pre-requisite(s):

Course Outcomes (COs): After the successful completion of the course, the student will be able to:

- CO1: Understanding Historical background and Essence of community policing.
- CO2: Set out the various models of community policing in different countries.
- CO3: Understand the relationship between community policing and crime Investigation.
- CO4: Importance of Community policing in the Indian circumstance.

Contents	45 Hrs
Unit- I Introduction to Community Policing	15 hours
Chapter- 1 History of Community Policing <ul style="list-style-type: none"> • Meaning and Definition of Community Policing. • Objectives of Community Policing. • Essential Components of Community Policing. • Historical background of Community Policing in world context. And philosophical, and practical dimensions of community policing • Planning and Implementing Community Policing Chapter 2 Community Policing and Crime Prevention <ul style="list-style-type: none"> • Community Policing Models in USA, UK, Asian Countries, European Countries. • Community policing strategies for solving problems - Community policing and Crime prevention; Situational and community crime prevention. 	
Unit- II Community policing in Practices	15 Hrs
Chapter –3 Activities of Community policing <ul style="list-style-type: none"> • Activities Community Policing Vs traditional policing. • Community policing in Action: Officers tasks and work routines Community and beat officers. • Improving detection and convictions, victim services and protecting human rights, Role of Community. Chapter – 4 Community Policing for Management of Public Order & Internal Security: <ul style="list-style-type: none"> • Community Policing Program for Naxal Affected & Other Low Intensity Conflict Areas. • Community Policing in Border Areas • Different Methods and Experiments. 	

Unit-III Community Policing in India	15 Hrs
<p>Chapter –5 Models of Community Policing in India</p> <ul style="list-style-type: none"> • Community policing in the Indian context. • Beats, Patrols, Night Visit Books, Village Defense Parties, Special Police during Elections. • PRAHARI (in Assam, Himachal Pradesh and Punjab) • MAITHRI in Andhra Pradesh • HOYSAL in Karnataka • Mohalla Committees: Special Police in Naxal areas of Chhattisgarh. • Tamil Nadu Community policing experiments: Friends of Police (FOP): <p>Chapter -6 Community Involvements</p> <ul style="list-style-type: none"> • Village / Town Defense Societies / Tikkri Pehra / Patrolling by the Public, Community Police Officers, Special Police Officers, Neighbourhood Watch, Victim& Witness Support, Liaison with RWAs etc. • Community as a by Standing help to police personnel for crime investigation. • Police Mithra Programmes. 	

References	
1	Kappeler, V., & Gaines, L. (2015). Community policing. New York: Routledge.
2	Miller, H. (2018). Community Policing: Partnerships for Problem Solving. Boston: Cengage Learning.
3	Prabhu, S. (2011). Community Policing in a Democratic Society: A Study of Cyberabad Police Commissionerate in Andhra Pradesh, India. LAP LAMBERT Academic Publishing.
4	Thichempully Krishnadas, V. (2013). Public events and police response. New Delhi: Oxford University Press.
5	Somerville, P. (2009). Understanding Community Policing. Policing An International Journal of Police Strategies and Management 32(2). 2.
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7	Mathur, K. M. (1994). Indian police: Role and challenges. New Delhi: Gyan Publishing House.
8	Skogan, W. (2004). Community policing. Belmont, CA: Wadsworth/Thomson Learning

E-Resources:

- https://police.assam.gov.in/sites/default/files/swf_utility_folder/departments/assampolice_webc_omindia_org_oid_8/this_comm/evaluation_study_on_project_prahari.pdf
- <https://bprd.nic.in/WriteReadData/userfiles/file/201905071150110985311Report-1.pdf>
- <https://ksp.karnataka.gov.in/new-page/Pink%20Hoysala/en>
- <https://www.mahapolice.gov.in/mohalla-committees/>
- <https://www.drishtias.com/daily-updates/daily-news-analysis/friends-of-police-in-tamil-nadu>

Course Articulation Matrix: Mapping of Course Outcomes (COs)with Program Outcomes(POs1-15)

Course Outcomes (COs) / ProgramOutcomes(POs)	CO1	CO2	CO3	CO4			
1. Disciplinary knowledge and skills	X	X	X	X			
2. Skilled communicator	X	X	X	X			
3. Critical thinker and problem solver	X	X	X	X			
4. Team player/worker	X	X	X	X			
5. Skilled project manager	X	X	X	X			
6. Digitally literate		X		X			
7. Analytical reasoning	X	X	X	X			
8. Research-related skills	X	X	X	X			
9. Multicultural competence	X	X	X	X			
10. Moral, Ethical & Legal reasoning	X	X	X	X			
11. Develop scientific temper and self-motivating learnings	X	X	X	X			
12. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation &Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	10	10
Total	20	20	40

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	V
Course Title	Forensic Biology and Serology (Theory)		
Course Code:	CFSE1T-C	No. of Credits	03
Contact hours	3 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Pre-requisite(s):

Course Outcomes (COs): After the successful completion of the course, the student will be able to:

- CO1: Understand the scope and importance of Forensic Biology and serology
- CO2: Understand the concepts of various biological samples and its examination
- CO3: Able to understand the new concepts of diatoms and wildlife Forensics
- CO4: Awareness about the application of Forensic Biology and Serology in CJS

Contents	45 Hrs
Unit- I Introduction to Forensic Biology	15 hours
Chapter- 1 Forensic Biology <ul style="list-style-type: none"> • Scope and importance of Forensic Biology in crime investigation • Hair- Introduction, Types, collection and examination, identification of spices through hair, Forensic significance of Hair • Forensic Physical anthropology and odontology - Identification Skeletal remains, importance of odontology and superimposition. • Diatoms – identification, classification, structure and its importance Chapter 2: Wildlife forensics <ul style="list-style-type: none"> • Introduction and importance of wildlife forensics, • Endangered and protected species of plants and animals, • Identification of skin, bone, nails, teeth and pug marks of various animals. 	
Unit- II Introduction to Forensic Serology	15 Hrs
Chapter –3: Forensic Serology <ul style="list-style-type: none"> • Scope, importance and role of Forensic serology in criminal investigation. • Blood - Identification/characteristics, collection, preservation. Antigens and anti-bodies. • Examination of Blood- physical examination, preliminary and confirmatory examination. • Identification of species through blood – its importance and techniques. 	

<p>Chapter – 4: DNA Fingerprinting</p> <ul style="list-style-type: none"> • Introduction to DNA. • Composition of DNA. • DNA fingerprinting techniques, • Importance of DNA fingerprinting in criminal identification 	
<p>Unit-III Detection of evidences in Forensic biology and Serology</p>	<p>15 Hrs</p>
<p>Chapter –5 Examination of Biological Evidences</p> <ul style="list-style-type: none"> • Body fluids-(semen, saliva, urine and faecal matter) composition Identification/characteristics, collection, location, preservation. • Examination of various biological evidences- physical examination, preliminary and confirmatory examination. <p>Chapter-6: Forensic Entomology</p> <ul style="list-style-type: none"> • Introduction, importance of insects in forensic science, life cycle of Insects, collection of entomological evidences, determination of time of death its application in Forensic entomology. • Forensic botany- Introduction, types of botanical evidences, location, collection and examination, importance of botanical evidences in Forensic science. • Pollens – Structure, function, method of identification, its forensic significance. 	

References	
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2	Saferstein, R. (1982): Science Handbook, Vol. I, II, & III, Prentice Hall New Jersey.
3	Curry, A. S. (1965): Methods of Forensic Science, Vol IV, Interscience, New York.
4	Robertson (1999) : Forensic examination of Hair. Francis & Taylor, USA.
5	Gilblet, E. (1969) : Markers in Human Blood, Davis, Pennsylvania
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7	Washington 8. Dunsford, I and Bowley, C. (1967) : Blood Grouping Techniques, Oliver & Boyd, London
8	Basin Et al. A laboratory Manual for Human Blood analysis. Kamla Raj Enterprises.
9	Li R. (2008) Forensic Biology, Taylor & Francis Group LLC.

E-Resources:

- http://epgp.inflibnet.a.c.in/epgpdata/uploads/epgp_content/S000016FS/P000699/M011528/ET/1516257136FSC_P12_M2_e-text.pdf
- <https://librarymohsin.files.wordpress.com/2018/07/forensic-biology-2nd-ed.pdf>
- <https://www.nap.edu/read/5141/chapter/14>.
- https://www.ojp.gov/pdffiles1/pr/160880_intro.pdf
- <https://link.springer.com/chapter/10.1385/1-59259-946-X:1>
- <https://guides.uflib.ufl.edu/c.php?g=147333&p=968747>

Course Articulation Matrix: Mapping of Course Outcomes (COs)with Program Outcomes(POs1-15)

Course Outcomes (COs) / ProgramOutcomes(POs)	CO1	CO2	CO3	CO4			
13. Disciplinary knowledge and skills	X	X	X	X			
14. Skilled communicator	X	X	X	X			
15. Critical thinker and problem solver	X	X	X	X			
16. Team player/worker	X	X	X	X			
17. Skilled project manager	X	X	X	X			
18. Digitally literate		X		X			
19. Analytical reasoning	X	X	X	X			
20. Research-related skills	X	X	X	X			
21. Multicultural competence	X	X	X	X			
22. Moral, Ethical & Legal reasoning	X	X	X	X			
23. Develop scientific temper and self-motivating learnings	X	X	X	X			
24. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation &Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	10	10
Total	20	20	40

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	V
Course Title	Fingerprint Examination (Theory)		
Course Code:	CFSCV1T-A	No.of Credits	03
Contact hours	3 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	50	Summative Assessment Marks	50

Course Pre-requisite(s):	
Course Outcomes(COs): After the successful completion of the course, the student will be able to: CO1: Understand the concept, definition and nature of Fingerprints CO2: To familiar the importance of Fingerprint as conclusive evidence in Court. CO3: Explain the basic elements and major scope, types of Fingerprints. Co4: To train the students practically in Fingerprint examination skills, which enable the students to work as fingerprint experts in forensic science labs, private investigation, detectives, private security agencies and consultancy services to CJS.	
Contents	60 Hrs
Unit- 1 Introduction to Dactyloscopy/Poroscopy/Dermatoglyphics	15 Hrs
Chapter-1 Nature and history of Fingerprints <ul style="list-style-type: none"> • Definition, Meaning and Scope: Biological Morphology of Fingerprints. • Brief history of Fingerprints from Babylonian, Egyptian, Greek and Chinese practices before the Christian era. • Various Types of Corporate Crimes. • Chapter- 2 Fundamentals of Fingerprints <ul style="list-style-type: none"> • Law of Individuality. • Law of Permanence. • Principle of Immutability. 	
Unit- 2 Characteristics and Classification of Finger Prints	15 Hrs
Chapter- 3 Nature of Finger Print Characteristics. <ul style="list-style-type: none"> • Fingerprint Patterns. • Fingerprint Peculiarities/Minutiae and Characteristics Chapter- 4 Classification of Fingerprints <ul style="list-style-type: none"> • Manual Systems: Roscher System (Germany and Japan), Vucetich System (Argentina and South America), and Henry System (India, UK and English speaking countries. • Computerised System and AFIS. 	

Unit- 3 Fingerprints Examination (Practicals) Experiential Learning	30 Hrs
<p>Chapter- 5 Examination of Latent Prints</p> <ul style="list-style-type: none"> • Visible Latent prints by Slanting Photography • Fuming Latent prints on vertical surfaces (Iodine, Anthracin etc.) • Developing of invisible chance prints by using different powders on different colour materials. • Applying powder on Latent prints on flat surfaces (Graphite powder) • Photographing Stained Fingerprints (blood, colour, dirt, flour, etc.); Fingerprint Photography/Videography <p>Chapter- 6 Sample Prints</p> <ul style="list-style-type: none"> • Ink, Pad and Paper • Biometric Impression on Scanner/ Live Scans • Other Methods. 	

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4	Andrew R.W.Jackson, Julie M Jackson, 2011, " Forensic Science", Pearson Education Limited.
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7	Jim Fraser, Robin Williams, 2013," Hand book of Forensic Science", Routldge publications.
8	Max.M.Houck, Jay A Siegal,2010, "Fundamentals of Forensic Science" Academic Press.

E-resources

- <https://www.forensicsciencesimplified.org/prints/how.html>
- <https://forensicexpertinvestigation.com/fingerprint-identification-evaluation-examination/>
- <https://www.ojp.gov/pdffiles1/nij/225320.pdf>
- <https://www.interpol.int/en/How-we-work/Forensics/Fingerprints>
- <https://www.legalserviceindia.com/legal/article-2463-fingerprints-a-forensic-tool-for-criminal-investigation.html>

Course Articulation Matrix: Mapping of Course Outcomes(COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
1. Disciplinary knowledge and skills	X	X	X	X			
2. Skilled communicator	X	X	X	X			
3. Critical thinker and problem solver	X	X	X	X			
4. Team player/worker	X	X	X	X			
5. Skilled project manager	X	X	X	X			
6. Digitally literate	X	X		X			
7. Analytical reasoning	X	X	X	X			
8. Research-related skills	X	X	X	X			
9. Multicultural competence	X	X	X	X			
10. Moral, Ethical & Legal reasoning	X	X	X	X			
11. Develop scientific temper and self- motivating learnings	X	X	X	X			
12. Lifelong learner	X	X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/ Activity	10	---	10
Experiential learning (Practical)/ Case work/Assignment/Field work/Project work etc	---	20	20
Total	20	30	50

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	V
Course Title	Forensic Instrumentation (Theory)		
Course Code:	CFSV1T-B	No.of Credits	03
Contact hours	3 Hrs/week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	50	Summative Assessment Marks	50

Course Pre-requisite(s):	
Course Outcomes(COs): After the successful completion of the course, the student will be able to: CO1: Understanding the importance of different forensic instruments CO2: To know the application of different instruments in the forensic science laboratories. CO3: This familiarization knowledge of application of different examination of physical clues. CO4: Helps the students to use in different professions like if they want to work as Forensic experts, Police Officers, Detectives and Private Investigations	
Contents	60 Hrs
Unit- I Introduction to Forensic Instrumentation	15 hours
Chapter- 1 Introduction to instrumentation <ul style="list-style-type: none"> • Meaning and Importance of Instrumentation in Forensic Science • Sample preparation for chromatographic and spectroscopic evidence. • Chromatographic methods. Fundamental principles and forensic applications of thin layer chromatography, gas chromatography and liquid chromatography. Chapter-2 <ul style="list-style-type: none"> • Spectroscopic methods. Fundamental principles and forensic applications of Ultraviolet-visible spectroscopy, infrared spectroscopy, atomic absorption spectroscopy, atomic emission spectroscopy and mass spectroscopy. X-ray spectrometry. Colorimetric analysis and Lambert-Beer law. • Electrophoresis – fundamental principles and forensic applications. • Neutron activation analysis – fundamental principles and forensic applications. 	
Unit- II Study of Microscopes	15 Hrs
Chapter -3 Introduction to Microscope <ul style="list-style-type: none"> • Meaning and Importance of Microscope • Fundamental principles of Microscope Chapter-4 Different types of microscopes. <ul style="list-style-type: none"> • Electron microscope. • Comparison Microscope. • Forensic applications of microscopy. 	

Unit-III Experiential Learning (Practicals)	30 Hrs
Chapter –5 <ul style="list-style-type: none"> To study different physical clues under compound microscope To study different physical clues under comparative microscope To determine the concentration of a colored compound by colorimetry analysis. To carry out thin layer chromatography of ink samples. To carry out separation of organic compounds by paper chromatography. To identify drug samples using UV-Visible spectroscopy. 	

References	
1	Criminalistics-an Introduction to Forensic Science- Safferstein, Richard M, (1990).
2	Willard, H.H. Lynne L. Merrett, J. Dean, A. Frank, A. Settle. J; Instrumental Methods of Analysis, 7th Edn. CBS pub. & Distributors, New Delhi, 1986.
3	Robinson, J.W; Atomic Spectroscopy, 2nd Ed. Revised & Expanded, Marcel Dekkar, Inc, New York, 1996.
4	Workman, J; Art Springsteen; Applied Spectroscopy- A compact reference for Practitioners Academic Press, London, 1997.
5	Khandpur, R.S; Handbook of Analytical Instruments, Tata McGraw Hill Pub.Co. New Delhi 2004.
6	Thomson, K.C. & Renolds, R.J; Atomic Absorption Fluorescence & Flame Emission Spectroscopy, A Practical Approach, 2nd Edn. Charles Griffith & Company, New South Wales, 1978.
7	Dudley, H. Williams & Fleming, I; Spectroscopic Methods in Organic Chemistry, 4th Edn, Tata McGraw- Hill Publishing Company, New Delhi, 1994.
8	Modern Criminal Investigation – Sodderman and O’Connell 3. Techniques of Crime Scene
9	Investigation – Stevenson & Wendell. 4. Elements of Criminal Investigation – Weston and Walls Criminal Investigation- Hans Gross.
10	Hand Book of Forensic Science – K.P.A. Publication
11	Scientific Aids to Investigation- Giriraj Shah (1999) Anmol Publications, New Delhi.

E Resources:

- https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=fo_rensic+instrumentation+techniques+&btnG=#d=gs_qabs&t=1658855388409&u=%23p%3Dtv9ARGv2ZRAJ
- https://books.google.co.in/books?hl=en&lr=&id=iD5YvQORT9kC&oi=fnd&pg=PR1&dq=info:7Me7e0RGzywJ:scholar.google.com/&ots=zuTscBCVV_&sig=HU4RV3aiwkWYGjPk5nX1zqORDRw&redir_esc=y#v=oformative%20assessment%20are%20compulsory&q&f=false
- https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=fo_rensic+instrumentation+techniques+&dq=#d=gs_qabs&t=165885584727&u=%23p%3DrW2OI08XUUsJ
- https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=fo_rensic+instrumentation+techniques+&dq=#d=gs_qabs&t=1658855627870&u=%23p%3DS9fO2loICjEJ
- https://books.google.co.in/books?hl=en&lr=&id=DiYSBQAAQBAJ&oi=fnd&pg=PP1&dq=info:M4y4gsGWaA2oJ:scholar.google.com/&ots=yRfhqBfAfb&sig=RYf5GT-AX_bbBSNiT9fjE3xrzqA&redir_esc=y

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
1. Disciplinary knowledge and skills	X	X	X	X			
2. Skilled communicator	X	X	X	X			
3. Critical thinker and problem solver	X	X	X	X			
4. Team player/worker	X	X	X	X			
5. Skilled project manager	X	X	X	X			
6. Digitally literate		X		X			
7. Analytical reasoning	X	X	X	X			
8. Research-related skills	X	X	X	X			
9. Multicultural competence	X	X	X	X			
10. Moral, Ethical & Legal reasoning	X	X	X	X			
11. Develop scientific temper and self-motivating learnings	X	X	X	X			
12. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation &Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/ Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	20	20
Total	20	30	50

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	V
Course Title	Laboratory Quality Management(Theory)		
Course Code:	CFSV1T-C	No.of Credits	03
Contact hours	3 Hrs/week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	50	Summative Assessment Marks	50

Course Pre-requisite(s):	
Course Outcomes (COs): After the successful completion of the course, the student will be able to: CO1: Understand the scope and importance of Quality management Systems in laboratory CO2: Understand the concepts of quality audits CO3: Able to understand the new concepts of Management requirements and Assessor guide CO4: Become aware about how to implement the quality management in laboratory in day to day work	
Contents	60 Hrs
Unit- I Quality Management and Organizations	15 hours
Chapter- 1 Introduction to Laboratory Quality Management <ul style="list-style-type: none"> • Need of quality management in Forensic laboratories, definition and advantages of accreditation. • Various organizations involved in maintain quality system and in framing guidelines - National Accreditation Board for Testing and Calibration Laboratories (NABL), International Laboratory Accreditation Co-operation (ILAC), Asia Pacific Laboratory Accreditation Co-operation (APLAC). • American Society of Crime Laboratory Directors (ASCLD), International Organization for Standardization (ISO), Bureau of Indian Standards (BIS). Chapter-2 Historical Background of Laboratories <ul style="list-style-type: none"> • Introduction, history and importance of - National Accreditation Board for Testing and Calibration Laboratories (NABL), International Laboratory Accreditation Co-operation (ILAC), Asia Pacific Laboratory Accreditation Co-operation (APLAC). • Introduction, history and importance of American Society of Crime Laboratory Directors (ASCLD), International Organization for Standardization (ISO), Bureau of Indian Standards (BIS). 	
Unit- II Forensic Quality Management System and quality audits	15 Hrs
Chapter -3 <ul style="list-style-type: none"> • Definition of Quality, Quality Management System (based on People, Technical and Document), 	

<p>Quality Manual, Quality Manager, Total Quality, Quality Assurance, Quality Control, Quality Planning,</p> <ul style="list-style-type: none"> • Classification of Quality Management System. <p>Chapter-4</p> <ul style="list-style-type: none"> • Quality audit- Quality Management System, classification of quality audit, Organization of external and internal audits. • Planning of audit, Implementation of internal audits, Follow up of corrective action, Records and reports of internal audits, Additional unscheduled audits. 	
Unit-III Experiential Learning (Practicals)	30 Hrs
<p>Chapter –5</p> <ul style="list-style-type: none"> • Management Requirements: organizational, document control, subcontracting of tests and calibrations control of Non-conforming testing / calibration work, Corrective and preventive actions, Management Review. • Technical Requirements: Test and calibration methods and their validation, measurements, standards and reference material, traceability, sampling, Proficiency Testing and Review Program. • Assessor guide: Assessor’s role, Assessor assignment procedure, Procedure of assessment of new applicant laboratories, Pre-assessment visit. • On-site assessment, Guide of assessors to formulate recommendations for NABL, Procedure for conducting closing meeting. 	

References	
1	NABL-210, Assessor Guide Issue No.3, 1.5.2002.
2	DFSS: Manuals of Forensic Sciences.
3	Forensic Science Laboratory Manual and Workbook
4	NABL -, Guide for Internal audit and Management Review for Laboratories.

E Resources:

1. <https://www.who.int/publications-detail-redirect/9789241548274>
2. <https://www.science.gov/topicpages/l/laboratory+quality+management>
3. https://www.researchgate.net/publication/359867610_Laboratory_Quality_Management_System
4. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6111386/>
5. <https://www.westgard.com/qcrefs.htm>
6. <https://www.qualio.com/blog/quality-management-in-laboratory-environments>
7. https://static1.squarespace.com/static/603ab50ab81d5532a0a4a42b/t/6045390b5635245a53b1b055/1615149325278/11_lqms_en.pdf

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
13. Disciplinary knowledge and skills	X	X	X	X			
14. Skilled communicator	X	X	X	X			
15. Critical thinker and problem solver	X	X	X	X			
16. Team player/worker	X	X	X	X			
17. Skilled project manager	X	X	X	X			
18. Digitally literate		X		X			
19. Analytical reasoning	X	X	X	X			
20. Research-related skills	X	X	X	X			
21. Multicultural competence	X	X	X	X			
22. Moral, Ethical & Legal reasoning	X	X	X	X			
23. Develop scientific temper and self-motivating learnings	X	X	X	X			
24. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/ Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	20	20
Total	20	30	50



Semester VI

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	VI
Course Title	Forensic Dactyloscopy and DNA Fingerprinting ((Theory)		
Course Code:	CFSC14T	No. of Credits	4
Contact hours	4 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Pre-requisite(s):	
<p>Course Outcomes(COs):After the successful completion of the course, the student will be able to:</p> <p>CO1: Understanding the concept of Forensic Dactyloscopy and its significance. CO2: Familiarizing the fundamental principles and Laws of Individuality. CO3: To gain insights of crimes, scams and their investigation in Indian context. CO4: To understand the forensic importance of Forensic Dactyloscopy and DNA in CJS</p>	
Contents	60 Hrs
Unit- I : Introduction to Dactyloscopy	15 hours
<p>Chapter -1 Meaning of Dactyloscopy</p> <ul style="list-style-type: none"> • Meaning and Scope; Print Science, Importance of Print Science, • Morphology of Fingerprints and Footprints; • Basic Features and Principles of Fingerprints • Historical Development of Print Science. • Organization of State and Central Fingerprint Bureaus, Embryogenesis. • Dermatological formation and Diseases influence on the damages of fingerprints, Biometric uniqueness, and Finger prints as Evidence. <p>Chapter -2 Classification of Finger Prints Pattern and their significance</p> <ul style="list-style-type: none"> • Meaning and importance of classification of finger print patterns. • Explaining various types of classification of Finger prints; • Henry classification and its examination, • secondary classification system, • Sub secondary classification system, • Secondary sub secondary classification system, • Key classification, 	

<p>Chapter -3 Significance of palm prints</p> <ul style="list-style-type: none"> • Significance of palm prints, Ridges and characteristics, Ridge counting, Minutiae, Poroscopy and Edgeoscopy, • Characteristics of pores – size, position and latent print formation of pores 	
Unit- II Development, Methodology and Impact of Finger Prints.	15 hours
<p>Chapter – 4 Development of Finger Prints</p> <ul style="list-style-type: none"> • Types of Chance Prints at Scene of Crime • Development of Latent Finger Prints. <p>Chapter- 5 Physical Methods for Latent Fingerprint Development</p> <ul style="list-style-type: none"> • Powder Methods: Regular: - Black powder and white powder. Metallic: Aluminium powder and Magnetic black powder. Fluorescent: Greenescent and Pinkescent fluorescent powders. • Iodine Fuming Method. <p>Chapter-6 Chemical and Photography Methods for Fingerprint Development</p> <ul style="list-style-type: none"> • Gentian Violet, Cyanoacrylate and Silver Nitrate Method. • Ninhydrin Method etc. • Developing of Latent Prints and Visible prints by Slanting Photograph. <p>Chapter-7 Biometric, Digital Imaging and Green Methods</p> <ul style="list-style-type: none"> • Forensic application of Biometrics, Biometric Impression on Scanner/Live Scans. • Application of digital imaging process in Fingerprint science. • AFIS application in Police and Finger Print Bureau, Application of light sources in fingerprint detection. 	
Unit-III Foot Prints, DNA finger prints development and their legal procedures	15 hours
<p>Chapter- 8 Development of Foot Prints</p> <ul style="list-style-type: none"> • Meaning, Types, Importance • Tracing of surface foot prints, • Casting and lifting of surface and sub-sunken footprints • Gait pattern analysis – • Determination of Sex, Height, Age of a person • Gait pattern analysis 	
Unit-IV Legal Proceudre	15 hours
<p>Chapter -9 Meaning and Importance of DNA Finger Prints</p> <ul style="list-style-type: none"> • Meaning of DNA Finger Prints and Scopes • Importance of DNA finger Prints • Legal procedure for conducting DNA finger Prints • Different type's cases conduct DNA Finger Prints. <p>Chapter – 10 Legal provisions Of DNA Finger Prints.</p> <ul style="list-style-type: none"> • Source of DNA: Blood, Saliva, Hair, Skin Tissues and Nail etc. 	

References-Suggested Readings	
1	Andrew R.W.Jackson, Julie M Jackson, 2011, " Forensic Science", Pearson Education Limited.
2	B.S.Nabar , 2001, forensic science in Crime Investigation", Asia law House.
3	J C Upshaw Downs, Anjali Ranadive, Swienton , 2002, "Ethics in Forensic Science, Academic Press Publications.
4	Jay A Siegel, KatheyMirakovits, 2013, " Forensic Science: The Basics", CRC press.
5	Jim Fraser, Robin Williams, 2013,"Hand book of Forensic Science", Routldge publications.
6	Max.M.Houck, Jay A Siegal,2010, "Fundamentals of Forensic Science" Academic Press.
7	Andrew R.W.Jackson, Julie M Jackson, 2011, " Forensic Science", Pearson Education Limited.
8	B.S.Nabar , 2001, forensic science in Crime Investigation", Asia law House.
9	J C Upshaw Downs, Anjali Ranadive, Swienton, 2002, "Ethics in Forensic Science, Academic Press Publications.
10.	Jay A Siegel, KatheyMirakovits, 2013, " Forensic Science: The Basics", CRC press.
11.	Walls H. J. (2nd Ed. 2008), – Forensic Science: An Introduction to Scientific Crime Detection, Universal Law Publishing Co. Pvt. Ltd. New Delhi-33
12.	Forensic Science in Criminal Investigation and Trials, B. R. Sharma
13.	John Townsend, 2008, "Forensic Evidence: Prints", Crabtree Publishing House
14.	Bumbrah, G. S.; Small particle reagent (SPR) method fordetection of latent fingermarks: A review. Egyptian Journal ofForensic Sciences 2016, 6, 328. [CrossRef]
15.	Linda L Klepinger, 2006, "Fundamentals of Forensic Anthropolgy", John wiley and sons

E-Resources:

<https://www.britannica.com/topic/dactyloscopy> <https://forensicfield.blog/dactyloscopy/>
<https://www.researchgate.net/publication/355065615> Fingerprint Development Techniques A Review
<https://www.wiley.com/en-us/Fingerprint+Development+Techniques:+Theory+and+Application-p9781119992615>
<https://www.ijert.org/an-advanced-method-fingerprint-recognition-and-analysis-for-all-investigationindustrial-applications> <https://www.taylorfrancis.com/chapters/mono/10.1201/9781420041347-7/methods-latentfingerprint-development-ashim-datta-henry-lee-robert-ramotowski-gaensslen>
<https://www.sciencedirect.com/science/article/abs/pii/S0031320395001069#:~:text=Fingerprints%20are%20classified%20into%20five,loop%2C%20right%20loop%20and%20whorl.>
https://www.cse.msu.edu/~cse802/Papers/802_FPCclassification.pdf

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
13. Disciplinary knowledge and skills	X	X	X	X			
14. Skilled communicator	X	X	X	X			
15. Critical thinker and problem solver	X	X	X	X			
16. Team player/worker	X	X	X	X			
17. Skilled project manager	X	X	X	X			
18. Digitally literate	X	X		X			
19. Analytical reasoning	X	X	X	X			
20. Research-related skills	X	X	X	X			
21. Multicultural competence	X	X	X	X			
22. Moral, Ethical & Legal reasoning	X	X	X	X			
23. Develop scientific temper and self-motivating learnings	X	X	X	X			
24. Lifelong learner	X	X	X				

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	10	10
Total	20	20	40

Course Title	Examination of Fingerprints and Footprints (Practical)	Practical Credits	2
Course Code	CFSC15P	Contact Hours	60 Hrs
Formative Assessment	25 Marks	Summative Assessment	25 Marks
Practical Content			
Unit-I Examination of Fingerprints (30 Hrs)			
1. Recording of fingerprints – Pattern analysis, 2. Identification of Ridge characteristics, 3. Ridge tracing & ridge counting, Comparison of fingerprints 4. Developing latent fingerprints – Physical methods & Chemical Methods			
Unit-II Examination of Footprints (30 Hrs)			
5. Recording of foot prints 6. Identification of Gait patterns 7. Tracing of surface footprints 8. Casting method of Sunken footprints			

Pedagogy: Conduct experiments, applying forensic techniques

Formative Assessment for Practical	
Assessment Occasion/type	Marks
Record	05
Plan, Procedure & Conduction	05
Results & Discussion	05
Applying Forensic Techniques	05
Viva	05
Total	25 Marks
<i>Formative Assessment as per guidelines</i>	

References	
1	Andrew R.W.Jackson, Julie M Jackson, 2011, " Forensic Science", Pearson Education Limited.
2	B.S.Nabar , 2001, Forensic science in Crime Investigation", Asia law House.
3	J C Upshaw Downs, Anjali Ranadive, Swienton , 2002, "Ethics in Forensic Science, Academic Press Publications.

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	VI
Course Title	Corporate Crimes (Theory)		
Course Code:	CFSC16T	No.of Credits	04
Contact hours	4 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Pre-requisite(s):

Course Outcomes(COs):After the successful completion of the course, the student will be able to:

- CO1: Understand the definition, nature, role of Corporate Crimes.
- CO2: Explain the basic elements and major scope, types of Corporate Crimes.
- CO3: Understanding the various types of corporate crimes occurred in India.
- CO4: To know the existing Laws and Preventive measures towards Corporate Crimes in India.

Contents	60 Hrs
Unit- 1 Introduction Corporate Crimes	15 Hrs
Chapter-1 Nature of Corporate Crime <ul style="list-style-type: none"> • Meaning and Definition of Corporate Crimes. • Various Types of Corporate Crimes • Famous Cases of Corporate Crimes. Chapter- 2 Forms of Corporate Crimes <ul style="list-style-type: none"> • Bankruptcy related Frauds • Exploiting assets & scams • Mortgage Frauds • Share Sale Frauds 	
Unit- 2 Corporate Frauds	15 Hrs
Chapter- 3 Various kinds of Corporate Frauds in India. <ul style="list-style-type: none"> • Meaning & Definition of Fraud • Types of Fraud: - Individual & Corporate • Characteristics of Fraud • Trends of Scams: National & Global Perspective Chapter- 4 Fraud in Banking Sector <ul style="list-style-type: none"> • Definition & Scope of Fraud in Banking Sector • Banking Impersonation Chapter-5 Types of Frauds <ul style="list-style-type: none"> • Fraud against Accounts • Fraud against Card (Debit/Credit) • Electronic Fraud and Miscellaneous Fraud 	

Unit- 3 Introduction to Insurance Frauds	15 Hrs
Chapter- 6 Meaning of Insurance Frauds <ul style="list-style-type: none"> • Definition, Nature & Scope of Insurance • Losses due to Insurance Frauds Chapter- 7 Types of Insurance Frauds <ul style="list-style-type: none"> • Property Insurance • Motor Vehicle Insurance • Health Insurance • Role of Investigation in Insurance Frauds 	
Unit- 4 Prevention of Corporate Crimes	15 Hrs
Chapter- 8 Measures in preventing Corporate Crimes in India. <ul style="list-style-type: none"> • Laws, Regulation and Supervision • Corporate Governance Chapter-9 Private Sector in India <ul style="list-style-type: none"> • Governance of Private Sectors in India. • Laws, Regulation and Supervision • Suspicious Transaction Reporting 	

References	
1	Anabui, Farad and Kakabadse, Andrew, 2004, Corporate sabotage, Jaico Publishing House.
2	Blum Richard H, 1972, Deleivers and Deceived, Charles, C. Thomas Publishers.
3	Bologna, Jack, 1984, Corporate Fraud, Butterworth Publishers.
4	Celia Wells, "Corporations and Criminal Responsibility".
5	Essential Commodities Act, 1955, 2005, Universal Law Publishing Co. Pvt. Ltd.
6	Ghosh Murrain, 1979, Black money – The case for India, Subarna Rekha, Calcutta.
7	Green Timothy, 1977, The Smuggling Business, Aldus Books, London. Internationally, Kogan Pagr Ltd.
8	Lal Bhure, 2003, Money Laundering: An insight into the dark world of Financial Frauds, Siddharth Publications.
9	Nabhi's Income Tax Guidelines and Mini Ready Reckoner, 2009, Anabhi Publication Bare Acts:
10	Pitchandi Nand Sivamurthy A, 1985, Insurance Frauds, the Indian Soceity of Criminology, Department of Psychology, Madras.

E-Resources:

- <https://www.britannica.com/topic/corporate-crime>
- <https://www.financierworldwide.com/roundtable-corporate-fraud-nov22#.ZDZkwPZBzIU>
- <https://www.weforum.org/communities/gfc-on-good-governance>
- <https://gppreview.com/2022/12/12/criminal-liability-of-corporations-in-india-an-environmental-perspective/>
- <https://www.datavisor.com/wiki/types-of-bank-frauds/>
- <https://www.investopedia.com/terms/i/insurance-fraud.asp>
- <https://www.iii.org/article/background-on-insurance-fraud>

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
13. Disciplinary knowledge and skills	X	X	X	X			
14. Skilled communicator	X	X	X	X			
15. Critical thinker and problem solver	X	X	X	X			
16. Team player/worker	X	X	X	X			
17. Skilled project manager	X	X	X	X			
18. Digitally literate		X		X			
19. Analytical reasoning	X	X	X	X			
20. Research-related skills	X	X	X	X			
21. Multicultural competence	X	X	X	X			
22. Moral, Ethical & Legal reasoning	X	X	X	X			
23. Develop scientific temper and self-motivating learnings	X	X	X	X			
24. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	10	10
Total	20	20	40

Course Title	Examination of Frauds and Corporate Crimes - VIII (Practical)	Practical Credits	2
Course Code	DSC-A17	Contact Hours	60 Hrs
Formative Assessment	25 Marks	Summative Assessment	25 Marks
Practical Content			
Unit-I Analysis of Corporate Crimes (30 Hrs)			
1. To analysis the Famous Indian Corporate Crimes. 2. Examination and Identification of the Forged Documents: <ul style="list-style-type: none"> a. Check Books, affidavits and other Government Documents b. Counterfeit of Notes and Coins. 3. Examination of Forged Signature			
Unit-II Examination of Bank and IT Frauds (30 Hrs)			
3. Evaluate and study of preventive measures towards Frauds in local and national banks (Plastic Cards, E-transactions, Gold and other ornaments) 4. Examination of Peculiar Characteristics of Different Documents like: Income Tax Returns, Insurance Bonds, E-certificates and E-documents.			

Pedagogy: Conduct experiments, applying forensic techniques

Formative Assessment for Practical	
Assessment Occasion/type	Marks
Record	05
Plan, Procedure & Conduction	05
Results & Discussion	05
Applying Forensic Techniques	05
Viva	05
Total	25 Marks
<i>Formative Assessment as per guidelines</i>	

References	
1	LNJN National Institute of Criminology and Forensic Science, "A Forensic Guide for Crime Investigators – Standard Operating Procedures", LNJN NICFS, 2016.
2	Cory Altheide and Halan Carvey; "Digital Forensics with Open Source Tools", Syngress Publication.
3	Sherri Davidoff and Jonathan Ham; "Network Forensics – Tracking Hackers through Cyberspace", Pearson Publications, 2012.

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	VI
Course Title	Forensic Photography (Theory)		
Course Code:	CFSC18T	No.of Credits	04
Contact hours	4 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Pre-requisite(s):	
Course Outcomes(COs): After the successful completion of the course, the student will be able to: CO1: Understand the definition, nature, role of Photography in Criminal Investigation. CO2: Familiarizing the importance of Forensic photography as evidence in the Court of law. CO3: Explain the basic elements and major scope, types of Forensic Photography CO4: Understand the tools and techniques for analyzing the photography as Crime scene Evidences.	
Contents	60 Hrs
Unit- 1 Introduction Forensic Photography	15 Hrs
Chapter-1 Forensic Photography <ul style="list-style-type: none"> • Definition, meaning and Importance of Forensic Photography • Fundamentals of light and vision, light sources. • Historical Development of Forensic Photography • Chapter- 2 Types of Photography <ul style="list-style-type: none"> • Types of Photographic Devices • Usages of various Photographic Devices. 	
Unit- 2 Types of Photography	15 Hrs
Chapter- 3 Various kinds of Photographic Tools <ul style="list-style-type: none"> • Nature & Mechanism of Different kinds of Photographic devices • Basic Principles of Photography • Chapter- 4 Significance of Photography in Forensic Science <ul style="list-style-type: none"> • Photography in indoor and outdoor scene of crime and other modes of Crime scene • Developing techniques and methods of photography • modern developments in photography 	

Unit- 3 Surveillance Photography	15 Hrs
Chapter- 5 Meaning of Surveillance Photography <ul style="list-style-type: none"> • Methods and Tactics of Surveillance Photography • Use of photography in reconstructing the scene of crime Chapter- 6 Photography and Crime scene. <ul style="list-style-type: none"> • Meaning and definition of Art factual evidences. • Types of Art factual evidences 	
Unit- 4 Digital Photography	15 Hrs
Chapter- 7 Nature of Digital Photography <ul style="list-style-type: none"> • Meaning and scope of Digital Photography • Mechanism of Digital Photography Chapter- 8 Importance of Digital Photography <ul style="list-style-type: none"> • Various kinds of Digital Photography • Admissibility of Digital Photography • Digital Photography as secondary evidences. 	

References	
1	Blitzer, H.L and Jacob, J; Forensic Digital Imaging and Photography, Academic Press,2002
2	Henry Horeustein; Colour Photography -A working Manual, Little Brown Co.Boston\((1995).
3	B.H.E. Jacobson, Ray GG Attridge; The Manual of Photography, Focal Press, London (1988)
4	Jahne B; Digital Image Processing, Heidelberg Springer (1996).
5	Workinson J; Art of Digital Video, Oxford Focal Press (1994).
6	Upton Kobre, Brill; Photography, Pearson Education, Inc (2006).
7	H.L. Blitzer and J.Jacobia; Forensic Digital Imaging and Photography, Academic Press(2002)
8	David R.Redsicker; The Practical Methodology of Forensic Photography- 2nd Ed. CRC Press LLC (2001)
9	R.E. Jacobson, S.F.Ray, G.G.Attridge, The Manual of Photography- Photographic and Digital Imaging, N.R. Oxford
10	Blitzer, H.L and Jacob, J; Forensic Digital Imaging and Photography, Academic Press,2002

E-Rresources:

- <https://www.definitions.net/definition/Forensic+photography>
- <https://www.forensicsciencesimplified.org/photo/>
- <https://www.skillshare.com/en/blog/a-brief-history-of-digital-photography/>
- <https://www.imaginated.com/blog/what-is-digital-photography/>
- <https://forenscope.com/blog/forensic-science/forensic-photography/>

Course Articulation Matrix: Mapping of Course Outcomes(COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
13. Disciplinary knowledge and skills	X	X	X	X			
14. Skilled communicator	X	X	X	X			
15. Critical thinker and problem solver	X	X	X	X			
16. Team player/worker	X	X	X	X			
17. Skilled project manager	X	X	X	X			
18. Digitally literate		X		X			
19. Analytical reasoning	X	X	X	X			
20. Research-related skills	X	X	X	X			
21. Multicultural competence	X	X	X	X			
22. Moral, Ethical & Legal reasoning	X	X	X	X			
23. Develop scientific temper and self-motivating learnings	X	X	X	X			
24. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	10	10
Total	20	20	40

SUGGESTED TOPICS

1. Crime in urban and rural areas.
2. Railway crimes.
3. Study on violent crimes.
4. Prison administration.
5. Police administration.
6. Police training.
7. Police-Community relations
8. Police help-line.
9. Forest crimes.
10. Criminal personality tendencies- groups; tribes.
11. P.O. Act- released offenders on probation.
12. Prisoners Act- Released convicts.
13. Victims of Crime.
14. Communal violence.
15. Juveniles in conflict with law.
16. Child labor.
17. Drug abuse
18. Voluntary agencies.
19. Ragging.
20. Economic offences.
21. Cyber crimes.
22. Prostitution- sex workers.
23. Human Rights.
24. Female criminality.
25. Crimes against women.
26. Crimes against children.
27. Mass media and crime.
28. Case Studies.
29. Pornography.
30. Crimes against weaker sections.
31. Habitual Criminals
32. Consumer Protection.

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	VI
Course Title	Transnational Organized Crime (Theory)		
Course Code:	CFSE2T-A	No. of Credits	03
Contact hours	3 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Pre-requisite(s):

Course Outcomes(COs):After the successful completion of the course, the student will be able to:

- CO1: Understanding of meaning and nature transnational organized crimes.
- CO2: Familiarizing the concept of cross-border criminal activities and its impacts on nations.
- CO3: Various legislation to combat transnational activities.
- CO4: To Know the process of extradition of criminals, fugitives and terrorists.

Contents	45 Hrs
Unit-1 Introduction to Organised Crime	15
Chapter -1 Introduction <ul style="list-style-type: none"> • Defining Organised Crime • Characteristics of organised crime • How organised crime Is organised • Similarities and difference between organised crime and other forms of crime (structural and functional) • Causes and evolution of organised crime from its inception Chapter -2 General classification and impacts <ul style="list-style-type: none"> • Emerging phenomenon of Organised crime in India and around the world • Jurisdiction and limitations • General classification of Organised crimes; organised gang criminality, Racketeering, syndicate crime, smuggling • Impacts of organised crime; to individual, to family and society and economy 	
Unit -2 Introduction to Transnational Crimes	15 Hrs
Chapter -3 Introduction <ul style="list-style-type: none"> • Domestic crimes and Transnational crimes • Meaning and definition • Characteristics of transnational crimes • Critical role of facilitators Chapter -4 Types of Transnational Crimes <ul style="list-style-type: none"> • Types of transnational crimes; Drug trafficking, Illicit arms trafficking, Human trafficking, organs trafficking minerals and wildlife trafficking, money laundering, hawala transactions, fraud and extortion, counterfeit currency and goods, Cybercrime, Terrorism, prohibited medicine smuggling, multinational corporate crimes 	

<ul style="list-style-type: none"> • Infamous Drug cartels and drug lords like Pablo Escobar and Medellin Cartel, El Chapo and Sinaloa cartel, Gulf cartel and Economy behind it. 	
Unit-3 UNO and International Conventions	15 Hrs
<p>Chapter -5 Crimes against humanity and genocide</p> <ul style="list-style-type: none"> • War Crimes, prisoners of war, war crime tribunals; International court of justice. • Famous trails: Nazis trial by the Nuremberg WCT, Saddam Hussians trail, the Eichmann trail. <p>Chapter -6 International interest</p> <ul style="list-style-type: none"> • UNO, International Human rights, Victims of Genocide, Religious oppressions. Geneva Convention <p>Chapter -7 Legal Provisions in India</p> <ul style="list-style-type: none"> • IPC; 120B,364A,399,400, • The prevention of Illicit traffic in narcotic drugs and psychotropic substance Act 1998 • Immoral traffic (prevention)Act,1973 • Foreign exchange regulation Act,1956 • Uttar Pradesh gangsters and Anti-social activities(prevention) Act,1986 • Custom's Act,1962, The Arms Act,1959 • COFEPOSA 1974 • The National security Act,1980 • KCOCA 2000, MCOCA 1999 • Transplantation of Human organ and tissue Act,1994 • PMLA-2002 <p>Chapter-8 International Legal Frameworks</p> <ul style="list-style-type: none"> • The United Nations convention against Transnational organized crime 2000 • The Naples political declaration and Global action plan. • Extradition treaties signed among world nations. 	

References	
1	Jay S Albanese (2015): Organised crime: from the mob to transnational organised crime
2	M Vishwanath (2020): A Critical study of legal control of organised crime in India.
3	Jyosna Dighe : Organised Crime in India
4	Eugene Mc Laughlin and Tim Newburn (2010), "Criminological Theory", Sage Publications Inc.
5	Frank.E.Hagan (2013), "Introduction to Criminology" 8 th Edition, Sage Publications Inc.
6	Freda Adler, Gerhard O.W.Muller, William S. Laufer, 2007, "Criminology " 6 th edition , McGraw Hill Publications.
7	James Treadwell, 2012, "Criminology: The Essentials", Sage Publications Inc.
8	KellyFrailing, Dec Wood Harper, 2013, "Fundamentals of Criminology: New Dimensions", Carolina Academic Press, USA.
9	Larry J Siegel, 2012, "Criminology" eleventh Edition, Woods worthCengage Learning.
10	Jay S Albanese (2015): Organised crime: from the mob to transnational organised crime

E-Resources:

- <http://hdl.handle.net/10603/96759>
- [Combating Transnational Organised Crime \(unodc.org\)](http://www.unodc.org)
- <https://www.legalservicesindia.com/article/1290/Organized-Crime-In-India.html>

Course Articulation Matrix: Mapping of Course Outcomes(COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
13. Disciplinary knowledge and skills	X	X	X	X			
14. Skilled communicator	X	X	X	X			
15. Critical thinker and problem solver	X	X	X	X			
16. Team player/worker	X	X	X	X			
17. Skilled project manager	X	X	X	X			
18. Digitally literate		X		X			
19. Analytical reasoning	X	X	X	X			
20. Research-related skills	X	X	X	X			
21. Multicultural competence	X	X	X	X			
22. Moral, Ethical & Legal reasoning	X	X	X	X			
23. Develop scientific temper and self-motivating learnings	X	X	X	X			
24. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	10	10
Total	20	20	40

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	VI
Course Title	Forensic Psychology (Theory)		
Course Code:	CFSE2T-B	No.of Credits	03
Contact hours	3 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Pre-requisite(s):

Course Outcomes(COs):After the successful completion of the course, the student will be able to:

- CO1: Understand the definition, nature, role of Forensic Psychology in Criminal justice System
CO2: Familiar with the basic elements of crime and major scope, types of Criminal Behaviour
CO3: Familiarizing with the concepts of Mental Diseases and exemption from criminal liability.
CO4: Understand the Components of Criminal Behaviour and for analysing the abnormal Behaviour as a question before Court.

Contents	45 Hrs
Unit- I Introduction Forensic Psychology	15 hours
Chapter-1 Developments of Forensic Psychology <ul style="list-style-type: none"> • Meaning, Definition Historical Development, Pioneers, Scope and Importance Fundamentals of light and vision, light sources. • Forensic Psychologist and their Duties Chapter- 2 Elements of Forensic Psychiatry <ul style="list-style-type: none"> • Introduction to different Types of Mental illness • Legal Issues in Forensic Psychology 	
Unit- II Introduction to Behaviourism	15 Hrs
Chapter- 3 Meaning and types of Behaviourism <ul style="list-style-type: none"> • Meaning and pioneers • Social Behaviours and its determinants • Normal & Abnormal Behaviour Chapter- 4 Mental Elements in Criminal Law <ul style="list-style-type: none"> • Mens Rea (guilty mind) • Actus Reaus (action as overt behaviour versus intention as covert behavior) • Animous Nocendi. • Non-age, Innocence, Dolo incapax, Age of Majority, Prudence • Mental Disease as a defense (Mcnaughten Law) • (V) Intoxication and Diminished Responsibility 	

<ul style="list-style-type: none"> • (VI) Duress as Innocence • (VII) Self-defense as a Natural Behavioural tendency of an organism 	
Unit-III Neuroses and Criminal Behaviour	15 Hrs
Chapter- 5 Meaning, Types of Criminal Behaviour <ul style="list-style-type: none"> • Hysteria, Split and Multiple Personality and Fugue • Anxiety and Crime • Obsessive and Compulsive Behaviours and their use in crime Modus Operandi Chapter- 6 Guilty and Crime <ul style="list-style-type: none"> • Phobias, Guilt and Crimes • Sexual Perversions and Crime • Manias and Crime • Scope of forensic psychology • Importance of Psychology in CJS 	

References	
1	Bartol, Curt R 7 Bartol, Anne M, (2008) Current perspectives in Forensic Psychology and Criminal Behaviour, Sage, London.
2	Haward L. R. C. - Forensic Psychology, Batsford Academic and Educational Ltd. London
3	Kaur Rajpal - Forensic Psychology: New Trends and Innovations, Deep and Deep Publications Pvt. Ltd. New Delhi-27
4	Blitzer, H.L and Jacob, J; Forensic Digital Imaging and Photography, Academic Press,2002
5	Henry Horeustein; Colour Photography -A working Manual, Little Brown Co. Boston(1995).
6	Jahne B; Digital Image Processing, Heidelberg Springer (1996).
7	Workinson J; Art of Digital Video, Oxford Focal Press (1994).
8	Upton Kobre, Brill; Photography, Pearson Education, Inc (2006).
9	H.L. Blitzer and J.Jacobia; Forensic Digital Imaging and Photography, Academic Press(2002)
10	David R. Redsicker; The Practical Methodology of Forensic Photography- 2nd Ed.CRC Press LLC (2001)
11	R.E. Jacobson, S.F.Ray, G.G.Attridge, The Manual of Photography Photographic and Digital Imaging, N.R. Oxford

E-Resources:

- <https://www.apa.org/ed/precollege/psn/2013/09/forensic-psychology>
- <https://blog.ipleaders.in/constituent-elements-of-a-crime/>
- <https://www.healthline.com/health/mental-health/neurosis-vs-psychosis>
- <https://www.psychguides.com/behavioral-disorders/>
- <https://www.ifsedu.in/forensic-psychology-and-criminal-profiling/>
- <https://blog.ipleaders.in/role-forensic-psychology-understanding-criminal-psychology/>

Course Articulation Matrix: Mapping of Course Outcomes(COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
25. Disciplinary knowledge and skills	X	X	X	X			
26. Skilled communicator	X	X	X	X			
27. Critical thinker and problem solver	X	X	X	X			
28. Team player/worker	X	X	X	X			
29. Skilled project manager	X	X	X	X			
30. Digitally literate		X		X			
31. Analytical reasoning	X	X	X	X			
32. Research-related skills	X	X	X	X			
33. Multicultural competence	X	X	X	X			
34. Moral, Ethical & Legal reasoning	X	X	X	X			
35. Develop scientific temper and self-motivating learnings	X	X	X	X			
36. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	10	10
Total	20	20	40

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	VI
Course Title	Social Problems and Crime (Theory)		
Course Code:	CFSE2T-C	No.of Credits	03
Contact hours	3 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Pre-requisite(s):	
Course Outcomes(COs): After the successful completion of the course, the student will be able to: CO1: Understand the current status of social problems CO2: Able to explain social issues with reference to different theories CO3: Understand how social issues and crime are interrelated CO4: Become aware about the policies adopted to eradicate social problems leads to crime,	
Contents	45 Hrs
Unit- I Introduction to Social Problems	15 hours
Chapter-1 Social Problems <ul style="list-style-type: none"> • Social problems: Meaning and Definition, • Nature and Characteristics • Types of Social Problems: Poverty, Corruption, Unemployment, Illiteracy, Women’s safety, etc Chapter- 2 Sociological Theories <ul style="list-style-type: none"> • Construction and Bonding • Causes of Social Problems • Crime as a Social Problem 	
Unit- II Introduction to Social Issues and Crimes	15 Hrs
Chapter- 3 Social Issues and Crime <ul style="list-style-type: none"> • Crime: Definition and nature • Criminological perspective of Sociological problems • Conflict theories of Criminology with reference to Social Problems Chapter- 4 Social Problems resulting in Crime <ul style="list-style-type: none"> • Drug abuse, Alcoholism and Communalism, • Prostitution, Human Trafficking and Drug Trafficking, • Beggary, Family Disorganization, Social Deviance, Juvenile Delinquency, Child and 	

Elderly Abuse, etc. • War and terrorism	
Unit-III Approaches to Social Problems	15 Hrs
Chapter- 5 Government Initiatives • Constitutional provisions • Role of government in dealing with social problems • Role of NGOs in dealing with social problems • State policy and terrorism • Global solutions for social problems	

References	
1	Ahuja, R. (2014). Social Problems in India. Rawat Publication
2	Akers, R.L., & Sellers, C.S. (2009). Criminological theories: Introduction, evaluation and application (5 th ed.). New York, NY: Oxford University Press
3	Merton, R. K. (1938). Social Structure and Anomie. American Sociological Review, 3. 672-682
4	Sutherland, E. H. (1947). Principles and Criminology (4 th ed.). Philadelphia, PA: J.P. Lippincott.
5	Leon-Guerrero, A. (2016). Social Problems. New Delhi: SAGE
6	Shama, G. L. (2015). Social Issues, Rawat Publication Jaipur
7	Bell, K. J., & McNamara, R. H. (2020) Dimensions of Crime as a Social Problem (2 nd ed.). Carolina Academic Press
8	Ferrell, J., & Websdale, N. (1999). Making Trouble: Cultural Constructions of Crime, Deviance and Control. Routledge
9	Phogat, K. (2017). Juvenile Delinquency in India Causes and Prevention. Journal of Advances and Scholarly Researches in Allied Education, 5.
10	Reinhardt, J. (1952). Social problems and social policy. New York: American Book Co.

E-Resources:

- [Social Problems In India \(ccsuniversity.ac.in\)](http://ccsuniversity.ac.in)
- [Paper_07.pdf \(ddceutkal.ac.in\)](http://ddceutkal.ac.in)
- [SP_CH1.pdf \(rowman.com\)](http://rowman.com)
- [Crime As Social Problem | PDF | Juvenile Delinquency | Substance Dependence \(scribd.com\)](https://www.scribd.com)
- [\(PDF\) Crime & Society | Scott Lukas - Academia.edu](https://www.academia.edu)
- [\(PDF\) Criminological Perspectives on Social Problems: A Global Approach | Monica Dabrowski - Academia.edu](https://www.academia.edu)
- [f5960f08930a47f \(msuniv.ac.in\)](http://msuniv.ac.in)

Course Articulation Matrix: Mapping of Course Outcomes(COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
37. Disciplinary knowledge and skills	X	X	X	X			
38. Skilled communicator	X	X	X	X			
39. Critical thinker and problem solver	X	X	X	X			
40. Team player/worker	X	X	X	X			
41. Skilled project manager	X	X	X	X			
42. Digitally literate		X		X			
43. Analytical reasoning	X	X	X	X			
44. Research-related skills	X	X	X	X			
45. Multicultural competence	X	X	X	X			
46. Moral, Ethical & Legal reasoning	X	X	X	X			
47. Develop scientific temper and self- motivating learnings	X	X	X	X			
48. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/ Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	10	10
Total	20	20	40

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	VI
Course Title	Forensic Document Examination (Theory)		
Course Code:	CFSV2T-A	No.of Credits	03
Contact hours	3 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	50	Summative Assessment Marks	50

Course Pre-requisite(s):	
Course Outcomes (COs): After the successful completion of the course, the student will be able to: CO1: Understanding the concept of documents and its significance. CO2: Developing the knowledge and skills for identifying fake documents. CO3: Gain insights of crimes, scams and their investigation in Indian context. CO4: Understand the legal provisions and forensic importance of documents in CJS	
Contents	60 Hrs
Unit- I Introduction to Forensic Documents	15 hours
Chapter- 1 Documents and Forensic Documents <ul style="list-style-type: none"> • Meaning Definition and Classification of Graphology and Forensic Questioned Document, • Nature and Scope of Forensic Document Examination and its limitations. • Care and Handling of Document Exhibits, Collection of samples • Forgeries & its types • Scope and Application of Forensic Documents in Investigation Chapter 2 Handwritten Documents <ul style="list-style-type: none"> • History and Basic Principles of Handwriting, • Characteristics of Handwriting Principle of handwriting and identification. • Procurement of standards for comparison. • General and individual writing characteristics, • Simon New Comb Theory of probability and its application in document examination. • Determination of absolute and relative age of documents. • Hand writing cases (purported suicide notes, wills, forged cheque, love letters, graffiti, etc.) Chapter 3 other questioned documents <ul style="list-style-type: none"> • Type written documents 	

<ul style="list-style-type: none"> • Printed matter • Business contracts • Identity theft (logos, trademarks, labels of companies) • Counterfeit documents • Printed cheques • Maps, Drawings and Art work • Seals and Stamps (dry seal and rubber stamp), hidden marks Charred Documents, 14 etc. 	
Unit- II Identification of Hand written Documents	15 Hrs
<p>Chapter – 4 Identification of the Written documents</p> <ul style="list-style-type: none"> • Basics of handwriting identification individuality of handwriting • Natural variations, Class characteristics Individual characteristics; • Process of comparison. • Disguised writing and anonymous letters- • Preservation and decipherment of secret writing, Charred writings • Importance of tremors in identification • Effect of age, emotions, illness, writing instrument and surface on handwriting <p>Chapter- 5 Advances in Document Examination</p> <ul style="list-style-type: none"> • Determination of age of document and writings • Forensic linguistics and graphology - its importance in writer identification • Decipherment of erasures - Physical and Chemical • Examination of e-documents and digital signatures • Report writing – Expert Opinion, juxtapose charts, cross-examination, related case studies. 	
Unit-III Document Examination (Practicals) Experiential Learning	30 Hrs
<p>Chapter – 6 Identification of Different Types of Documents</p> <ul style="list-style-type: none"> • Examination of Photostat (Xerox) copies, carbon copies, fax message, type writings, • Examination of printed matter: letterpress printing, intaglio printing, offset printing, screen printing & its related concepts • Types of printing of security documents • Basic tools needed for forensic documents examination and their significance. • Instrumentation of Document Examination • Physical instrumentation – VSC, ESDA, IR Reflectance, etc • Chemical examination – TLC, HPLC, Paper Chromatography, etc. 	

References	
1	Ellen D. (2005), Scientific Examination of Documents: Methods and Techniques, (3rd Edition) Boca Raton, CRC Press.
2	Levinson J (2001), Questioned Documents: A Lawyers' Handbook, San Diego, Academic Press.
3	Morris R (2000), Forensic Handwriting Identification: Fundamental Concepts and Principles, Academic Press.
4	ASTM Standard Manuals: For Ink: E 1422-05; E1789-04, E2389-05, E 2390-06; For Type written Material: E 2494-08, E2285-03, E2291-03, E2287-03; For paper: E2325-03, E2288-03; For rubber stamps: E2286-03, E2289-08; General: EE2331-04, E444-06, and E2195-02
5	Albert Sherman Osborn, 1910, "Questioned Documents", Lawyers Co-Operative Publishing Company.
6	Huber, A. R. and Headrice, A.M. (1999): Handwriting identification: facts and fundamental CRC LLC
7	Ellen, D (1997): The scientific examination of Documents, Methods and techniques. 2nd ed., Taylor & Francis Ltd.
8	Morris (2000): Forensic Handwriting Identification (fundamental concepts and Principals)

E-Resources:

- <https://handwriting-graphology.com/what-is-graphology/>
- <https://handwriting-graphology.com/handwriting-analysis-chart/>
- <https://www.slideshare.net/DonCaeiro/questioned-documents-full-ppt>
- <https://ifflab.org/methods-of-questioned-document-analysis-by-questioned-document-examiners/>
- <http://www.santoshraut.com/forensic/questioneddocument.htm>
- <https://indianlegalsolution.com/expert-opinion-and-its-relevancy/>
- <https://science.howstuffworks.com/handwriting-analysis.htm>

Course Articulation Matrix: Mapping of Course Outcomes(COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
13. Disciplinary knowledge and skills	X	X	X	X			
14. Skilled communicator	X	X	X	X			
15. Critical thinker and problem solver	X	X	X	X			
16. Team player/worker	X	X	X	X			
17. Skilled project manager	X	X	X	X			
18. Digitally literate		X		X			
19. Analytical reasoning	X	X	X	X			
20. Research-related skills	X	X	X	X			
21. Multicultural competence	X	X	X	X			
22. Moral, Ethical & Legal reasoning	X	X	X	X			
23. Develop scientific temper and self-motivating learnings	X	X	X	X			
24. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	20	20
Total	20	30	50

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	VI
Course Title	GIS and GPS in Crime Analysis(Theory)		
Course Code:	CFSV2T-B	No.of Credits	03
Contact hours	3 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Pre-requisite(s):	
Course Outcomes(COs): After the successful completion of the course, the student will be able to: CO1: Understand the meaning, concept and scope of GIS and GPS. CO2: Familiarizing the application of GIS and GPS in criminal investigation. CO3: Learning of Crime mapping and Crime data analysis and GPS application in Crime prevention. CO4: Understand the Components of GIS and GPS in crime prevention and detection.	
Contents	60 Hrs
Unit- I Introduction GIS and GPS	15 Hrs
Chapter 1-Overview of GIS <ul style="list-style-type: none"> • Definitions, components, terminology and concepts of GIS • History of GIS • Criminological entities in GIS • Criminological entities, attributes and significance • its typology and relationship to Criminology, • Implementation Issues and in the future. • Tools of GIS Chapter 2- Overview of GPS <ul style="list-style-type: none"> • Definitions, components, terminology and concepts of GPS • History of GPS • Criminological entities in GPS • Criminological entities, attributes and significance • its typology and relationship to Criminology, • Implementation Issues and in the future. • Tools of GPS 	
Unit-II Cartography and Spatial Data	15 Hrs
Chapter 3- Introduction to Cartography <ul style="list-style-type: none"> • Cartographic Criminology meaning and Definition • Cartographic explanation of theories in Criminology • Adolf Quetelet and Andre-Michel Guerry contributions • Recent studies in Cartographic criminology and its advancement. 	

Chapter 4- Introduction to Spatial Data <ul style="list-style-type: none"> • Spatial Data meaning and uses • Crime Mapping meaning and importance • GIS related crime data file management. • Graphical representation of distribution of types of crimes/criminals. • GIS and charting • Criminocentric Hot-Spot and Spatial crime data modelling • Sources of crime/criminal spatial data, and stages. 	
Unit III Experiential Learning (Practical)	30 Hrs
Chapter 5- Fundamentals of Positioning Systems <ul style="list-style-type: none"> • GPS Receiver and its Types • GPS Errors and Factor affecting GPS accuracy • GPS Positioning Modes: GPS point positioning, GPS relative positioning • Route Navigation and GPS Tracking • Utility of GPS in criminology. Chapter 6- GIS& GPS application in Law Enforces <ul style="list-style-type: none"> • GPS in Policing and Investigation • Mobile forensic and Location based Investigation techniques • GPS based Monitoring System by Law enforcements • Phone network Tracking • Crime prevention and control Strategies. 	

References	
1	Borough, P.A (1986) „Principles of GIS for land resources“
2	Chrisman, N.R. (1997) „Exploring GIS systems“
3	Krishnan N, Windows and MS Office with Database Concepts, SciTech Publications.
4	Thomas A Powell, HTML, TMH publications.
5	Anji Reddy (2001) „Remote sensing and GIS)
6	N.K. Agrawal, (2004), Essentials of GPS, Spatial Network Pvt. Ltd.
7	Sathish Gopi, (2000) , GPS and Surveying using GPS
8	Siddiqui, M.A.; 2006, Introduction to Geographical Information System, Sharda Pustak Bhavan, Allahabad.
9	Siddiqui, M.A.; 2011, Concepts and Techniques of Geoinformatics, Sharda Pustak Bhavan, Allahabad.

E- Resources:

- <https://www.esri.com/en-us/what-is-gis/overview>
- <https://education.nationalgeographic.org/resource/geographic-information-system-gis/>
- <https://www.geomatic.ma/en/arcgis/sig/how-gis-works>
- https://www.ncjrs.gov/ovc_archives/reports/geoinfosys2003/cm3b.html
- <https://www.tandfonline.com/doi/full/10.1080/19475683.2012.691900>
- <https://www.gps.gov/systems/gps/>
- <https://spaceplace.nasa.gov/gps-pizza/en/>
- <https://education.nationalgeographic.org/resource/gps/>
- <https://gpstechnologies.com/2019/02/how-gps-tracking-helps-police-catch-criminals/>
- <https://gisgeography.com/best-gis-software/>
- <https://www.getapp.com/operations-management-software/gps-tracking/>

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
25. Disciplinary knowledge and skills	X	X	X	X			
26. Skilled communicator	X	X	X	X			
27. Critical thinker and problem solver	X	X	X	X			
28. Team player/worker	X	X	X	X			
29. Skilled project manager	X	X	X	X			
30. Digitally literate	X	X	X	X			
31. Analytical reasoning	X	X	X	X			
32. Research-related skills	X	X	X	X			
33. Multicultural competence	X	X	X	X			
34. Moral, Ethical & Legal reasoning	X	X	X	X			
35. Develop scientific temper and self-motivating learnings	X	X	X	X			
36. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	20	20
Total	20	30	50

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	VI
Course Title	Crime Prevention and Environmental Design (Theory)		
Course Code:	CFSV2T-C	No.of Credits	03
Contact hours	3 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Pre-requisite(s):	
Course Outcomes (COs): After the successful completion of the course, the student will be able to: CO1: Understand the importance of crime prevention CO2: To become aware about the application of environmental design in crime prevention. CO3: Know about different methods used for prevention of crime CO4: Deeply study about Crime Prevention through Environmental Design	
Contents	60 Hrs
Unit- I Introduction to Crime Prevention	15 Hrs
Chapter 1 Meaning and Types of Crime Prevention <ul style="list-style-type: none"> • Crime prevention: Definition and History • Types of crime prevention: Primary, Secondary and Tertiary • Community approach in crime prevention Chapter 2: Theories of Crime Prevention <ul style="list-style-type: none"> • Routine activity Theory • Broken window theory • Rational Choice Theory • Crime Pattern Theory 	
Unit-II Typologies of Crime Prevention	15 Hrs
Chapter 3- Crime Prevention Models <ul style="list-style-type: none"> • Public Health Model • Tonry and Farrington's Typology • Community and Developmental Crime Prevention • Two-dimensional crime prevention • Situational Crime Prevention Model Chapter 4-Other preventive models <ul style="list-style-type: none"> • Short-term Prevention, 	

<ul style="list-style-type: none"> • Social Prevention and Long term Prevention • Shame Prevention • Active Prevention • Non-penal Prevention • Penal Prevention • Judicial Prevention • Disciplinary Prevention 	
Unit III Experiential Learning (Practical)	30 Hrs
Chapter 5- Crime Prevention through Environmental Design <ul style="list-style-type: none"> • Definition, Concept and Scope • Principles of CPTED: • 3 D approaches in CPTED: Designation, Definition and Design • Strategies of CPTED Chapter 6- Other problem-solving methods <ul style="list-style-type: none"> • SARA Model (Scanning, Analysis, Response, Assessment) and • Ekbloms 5Is (Intelligence, Intervention, Implementation, Involvement and Impact) 	

References	
1	Tilley, N. (2005). Handbook of Crime Prevention and Community Safety (1 st ed.). Willan
2	Evans, K. (2010). Crime Prevention: A Critical Introduction. SAGE Publication Ltd.
3	Ahuja, R. (2000). Criminology. Rawat Publication
4	Paranjape, N. V. (2017). Criminology & Penology (27 th ed.). Central Law Publication
5	Rosenbaun, D. P., Lurigio, A. J., & Davis, R. C. (1998). The Prevention of Crime. Wadsworth Publishing Co Inc.
6	Freilich, J. D., & Newman, G. R. (2009). Reducing Terrorism through Situational Crime Prevention. Lynne Rienner
7	Clarke, R. V. (1997). Situational Crime Prevention: Successful Case Studies. Lynne Rienner
8	Cozens, P., & Eckblom, P. (2022). Think Crime: Using Evidence, Theory and Crime Prevention Through Environmental Design (CPTED) for Planning Safer Cities (2 nd ed.). Praxis Education
9	Benjamen, O., Abdulquadri, R., & Segun, O. (2022). Crime Prevention Through Environmental Design Cpted. Independently Published.

E- Resources:

- [Handbook on the Crime Prevention Guidelines: Making them work \(unodc.org\)](https://www.unodc.org/)
- [1521106050E-TEXT.pdf \(inflibnet.ac.in\)](https://www.inflibnet.ac.in/1521106050E-TEXT.pdf)
- [\[PDF\] Crime Prevention by Steven P. Lab eBook | Perlego](#)
- [Crime prevention – development and dilemmas \(ojp.gov\)](https://www.ojp.gov/crime-prevention-development-dilemmas)
- [Draft1n \(ed.gov\)](https://www.ed.gov/draft1n)
- [43558NCJRS.pdf \(ojp.gov\)](https://www.ojp.gov/43558NCJRS.pdf)
- [G:DataPLANCOMMDocumentscptedorg1.PDF \(humanics-es.com\)](https://www.humanics-es.com/G:DataPLANCOMMDocumentscptedorg1.PDF)
- [Crowe_Zahm_1994.pdf \(popcenter.org\)](https://www.popcenter.org/Crowe_Zahm_1994.pdf)

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes(POs1-15)

Course Outcomes (COs) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
37. Disciplinary knowledge and skills	X	X	X	X			
38. Skilled communicator	X	X	X	X			
39. Critical thinker and problem solver	X	X	X	X			
40. Team player/worker	X	X	X	X			
41. Skilled project manager	X	X	X	X			
42. Digitally literate	X	X	X	X			
43. Analytical reasoning	X	X	X	X			
44. Research-related skills	X	X	X	X			
45. Multicultural competence	X	X	X	X			
46. Moral, Ethical & Legal reasoning	X	X	X	X			
47. Develop scientific temper and self- motivating learnings	X	X	X	X			
48. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	10	10	20
Seminar/Presentation/ Activity	10	---	10
Case work/Assignment/Field work/Project work etc	---	20	20
Total	20	30	50

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	VI
Course Title	Investigative Journalism (Theory)		
Course Code:	SEC: 5	No.of Credits	02
Contact hours	2 Hrs/Week	Duration of SEA/Exam	2 hours
Formative Assessment Marks	20	Summative Assessment Marks	30

Course Pre-requisite(s):	
Course Outcomes(COs): After the successful completion of the course, the student will be able to: CO1: Understanding the role of investigative reporting in modern journalism. CO2: Learning to conduct investigative research in an ethical manner. CO3: Acquiring advanced investigative journalistic skills. CO4: Understanding the laws and legal provisions pertaining to Journalism.	
Contents	28Hrs
Unit- I Introduction to Investigative Journalism.	14 hours
Chapter- 1 Meaning and Definition of Investigative Journalism. <ul style="list-style-type: none"> • Introduction to Investigative Reporter. • Role of Investigative Reporter. • Qualities and essentials for becoming an investigative journalist. • career and opportunities, Centre for Investigative Journalism (CIJ). • Ethical/unethical use of sting operations Chapter- 2 Investigative Journalism & Resources. <ul style="list-style-type: none"> • Records and the Confidentiality of Source. • Issues of contempt, defamation. • Right to Privacy and Official Secrets Act. • What is evidence, Case Study: Panama Papers and Watergate Scandal. 	
Unit- II Data Collection & Designing Theory.	14 Hrs
Chapter- 3 Methods of Data Collection. <ul style="list-style-type: none"> • Records and the Confidentiality of Source. • Issues of contempt, defamation. • Right to Privacy and Official Secrets Act. • Importance of evidence, and Case Study. 	

Chapter-4 Designing Theory.	
<ul style="list-style-type: none"> • Panama Papers and Watergate Scandal. • Observation and planning techniques. • Cultivating sources. • Developing the project. 	

References	
1	A Manual for Investigative Journalism Edited By Syed Nazakat and the Kas Media Programme.
2	How to Become a Mouthpiece for the People a Manual for Investigative Journalism Edited by Syed Nazakat & the KAS Media Programme.
3	The Global Investigative Journalism Casebook UNESCO series on Journalism Education

E-Resources:

- <https://en.unesco.org/investigative-journalism>
- <https://gijn.org/investigative-journalism-defining-the-craft/>
- <https://study.com/learn/lesson/investigative-journalism-overview-methods-examples.html>
- <https://www.nfi.edu/investigative-journalism/>
- <https://www.frontlineclub.com/what-is-the-role-of-investigative-journalism/>

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-15)

Course Outcomes (COs) / Program Outcomes (POs)	CO1	CO2	CO3	CO4			
49. Disciplinary knowledge and skills	X	X	X	X			
50. Skilled communicator	X	X	X	X			
51. Critical thinker and problem solver	X	X	X	X			
52. Team player/worker	X	X	X	X			
53. Skilled project manager	X	X	X	X			
54. Digitally literate		X	X	X			
55. Analytical reasoning	X	X	X	X			
56. Research-related skills	X	X	X	X			
57. Multicultural competence	X	X	X	X			
58. Moral, Ethical & Legal reasoning	X	X	X	X			
59. Develop scientific temper and self-motivating learnings	X	X	X	X			
60. Lifelong learner		X	X	X			

Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark 'X' in the intersection cell if a course outcome addresses a particular program outcome.

Pedagogy: Lecture, Assignments, Interactive Sessions, ICT, Group Discussion

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation & Attendance)			
Assessment Occasion/type	C1	C2	Total Marks
Written Test (2)	05	05	10
Seminar/Presentation/Activity	05	---	05
Case work/Assignment/Field work/Project work etc	---	05	05
Total	10	10	20

CBCS Question Paper Pattern for UG

Semester **DSC, DSEC & OEC**

Paper Code:		Paper Title:	
Duration of Exam	2 Hours	Max Marks	60
Instruction:	Answer all the sections		

Section-A

Answer any TEN of the following objectives questions. Each question carries equal marks	Marks 1X10=10
Q1. a. b. c. d. e. f. g. h. i. j. k. l.	

Section-B

Answer any SIX of the following questions. Each question carries equal marks	Marks 5X6=30
Q2. Q3. Q4. Q5. Q6. Q7. Q8. Q9.	

Section-C

Answer any TWO of the following questions. Each question carries equal marks	Marks 10X2=20
Q10. Q11. Q12.	

