

BENGALURU CITY UNIVERSITY

CHOICE BASED CREDIT SYSTEM (Semester Scheme with Multiple Entry and Exit Options for Under Graduate Course)

Syllabus for B.A. / B.Sc. Criminology & Forensic Science (V & VI Semester)

2023-24 onwards

Composition of Subject Expert Committee Members

SN	Name & Organization	Designation
1	Prof. R. N. Mangoli	Chairman
2	Prof. Venumadhava G.S.	Member
3	Prof. Kalyan J. L.	Member
4	Dr. Arvind G.B.	Member
5	Dr. Nagaraju K. S.	Member
6	Dr. Chandraprabha Patagar	Member
7	Dr. Ramesh M. N.	Member Convener

Sem. No.	Course Category	Course Code	Course Title	Credits Assigned	Instructional hours per week		Duration of Exam (Hrs.)	rattern (ivial KS)		
					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 Examin at ion	2		4	3	25	25	50
		CFS C13-T	Juvenile Justice System	4	4		2	40	60	100
	DSE (Anyone to be chosen)	CFS E1-T	A. VictimologyB. Community PolicingC. Forensic Biology and Serology	3	3		2	40	60	100
	Vocational (Anyone to be chosen)	CFS V1-T	A. Fingerprint ExaminationB. Forensic InstrumentationC. 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	Examin ation of Fingerprin ts and Footprin ts	2		4	3	25	25	50
		CFS C16-T	Corporate Crimes	4	4		2	40	60	100
			Dissertation work (any one compulsorily) on a. Police Station b. Forensic Documentation/Impression Evidence c. Juvenile Homes/Special Home d. Digital Forensic e. Prisons d. Forensic Psychology/Criminal Psychology Forensic Photography	2		4	3	25	25	50
		CFS C18-T		4	4		2	40	60	100
	DSE (Anyone to be chosen)	CFS E2-T	A. Transnational Organized CrimeB. Forensic PsychologyC. Social Problems and Crime	3	3		2	40	60	100
	Vocational (Anyone to be chosen)	CFS V2-T	A. Forensic Document ExaminationB. GIS and GPS in Crime AnalysisC. Crime Prevention and Environmental Design	3	3		2	50	50	100

Listing of Courses from I to VIII Semesters for Undergraduate Program in Criminology & Forensic Science



Model Curriculum

Program Name	BA/B.Sc. in Criminology and Forensic Science		Semester	V		
Course Title	se Title Medical Jurisprudence and Toxicology (4)(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):

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

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.

Contents	60 Hrs
Unit- I Medical Jurisprudence and Toxicology	15 hours
 Chapter- I Introduction to JURISPRUDENCE 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 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 and Ethics and State Protection Act relevant codes of Medical Ethics and Ethics in Research. 	
 Common medico-legal problems in Hospital practice, Medico-legal, ethical & socia problems in relation to AIDS. 	
Unit- II Introduction to forensic medicine	15 Hrs
Chapter- 3 Meaning of forensic medicine,	
Definition, Scope Relevant forensic medicine	
History of Forensic Medicine	
 Need, Scope, Importance and probative value of medical evidence in Crime Investigation 	

Chante	er- 4 Thanatology	
	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	
	I Forensic Toxicology	15 Hrs
0111-11	I TOTENSIC TOXICOlogy	121112
Chapte	er – 5 Introduction to Toxicology	
-	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.	
Chapte	er- 6 CORROSIVE & IRRITANT POISONS:	
	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	
01110-11	/ Major Poisons	15 Hrs
Chapte	r -7 Neurotoxic	
•	Inebriates- Ethyl Alcohol, Methyl Alcohol	
	Somniferous and Sedative Hypnotics – Opium and Derivatives, Barbiturates Deliriants- Dhathura, Cannabis, Cocaine.	
	Insecticides/ Pesticides/ Agrochemical- Organo-phosphorus Compounds. Organo- chlorides, Carbamates Pyrethriods, Aluminium phosphide.	
•	Spinal Poisons- Strychnine	
	Peripheral Poisons- Curare	
Charte	•	
-	r -8 Asphyxiants and Other Poisons	
	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.	
1		

Refe	erences-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:

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

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

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

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.

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	CFSC1)P		Contact Hours	60 Hrs		
Formative Asses	ssment	25 Marks	Summative A	ssessment	25 Marks		
		Practical Con	ntent				
Unit-1 Introduc	tion to M	ledico-legal Examination (30 H	Irs)				
1. Medico-legal	Aspects	of Homicidal, Suicidal and Acc	idental.				
2. Examination	of humai	n skeleton.					
3. Identification	of Sex a	nd Age through Bone remains	5.				
4. Examination	of differe	ent wounds and Injuries.					
Unit-II Examina	ation of H	Hair and Fiber (30 H	(rs)				
5. Examination of	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			
Formative Assessment are compulsory				

Ref	ferences
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.



Model Curriculum

Program Name	BA/B.Sc.in Criminology and Forensic Science	Semester	V
Course Title			
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	
 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	
 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. 	

Chapter 3 Network and Mobile Forensics

- 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.

Unit- II Introduction to Cybercrimes

Chapter – 4 Defining Cyberspace and Cybercrimes

- 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.

Chapter- 5 Types of Cybercrimes

- 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 Screer 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.

Unit-III Cyber related Laws and Enforcement Agencies
15 Hrs
Chapter – 6 Regulatory Framework of Information and Technology Act
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.

15 Hrs

Chapter- 7 Investigation of Cyber Crimes

- 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.

Unit-IV Cyber Security 15 Hrs Chapter -9 Introduction to Cyber Security 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. Chapter – 10 Network Architecture & Security 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 traffid • 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 ٠ 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	Х	Х	Х	Х		
2. Skilled communicator	Х	Х	Х	Х		
3. Critical thinker and problem solver	Х	Х	Х	Х		
4. Team player/worker	Х	Х	Х	Х		
5. Skilled project manager	Х	Х	Х	Х		
6. Digitally literate		Х	Х			
7. Analytical reasoning	Х	Х	Х	Х		
8. Research-related skills	Х	Х	Х	Х		
9. Multicultural competence	Х	Х	Х	Х		
10. Moral, Ethical & Legal reasoning	Х	Х	Х	Х		
11. Develop scientific temper and self- motivating learnings	Х	Х	Х	Х		
12. Lifelong learner		Х	Х	Х		

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.

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/	10		10		
Activity					
Case work/Assignment/Field work/Project		10	10		
work etc					
Total	20	20	40		

Refe	erences
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:

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

Co	Course Title Digital Forensic Examination-II (Practical)			Practical Credits	2	
Co	ourse Code	Code CFSC12P		Contact Hours	60 Hrs	
Fo	Formative Assessment 25 Marks Summative Assessment		ssessment	25 Marks		
			Practical Co	ntent		
Ur	nit-I Introduc	tion to D	igital Forensic Examination (3	0Hrs)		
1.	Encrypting a	and decr	ypting the partition using Bit I	ocker		
2.	2. Analyzing hidden files and folders including slack space for evidence.					
3.	Understand	ing Netv	ork Devices: Modem, Router,	Switch, Hub,	Repeater	
4.	4. Email and IP Tracking Techniques					
Un	it-II Examina	ation Dig	ital Data Sources (30Hrs)			
5.	5. Understanding Data Packet Sniffers					
6.	6. Open-Source Forensic Tools					
7.	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				
Formative Assessment are com	pulsory				

Ref	ferences
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.



Model Curriculum

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 Asses	ssment 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	
 Chapter- 1 Meaning and Definition Juvenile Justice. 	
Deviance.	
International perspectives on juveniles (in developing countries).	
Chapter 2 Rights of the Child.	
 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	
Economic Factors	
Social Factors	
Psychological Factors	
Genetic factors	

Chapter- 4 Specific Factors.	
• 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.	
Unit-III Laws Relating to Deviant Behaviour of Juveniles.	15 Hrs
Chapter – 5 History of Juvenile Justice Act.	
• Early History of JJ in India up to 2015: Joint Family system and typical Varnashran beliefs and duty towards children.	r
 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). 	
Chapter- 6 Legal frameworks.	
 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).	
Unit-IV Institutions in India for Children's.	15 Hrs
Chapter -7 Institutions in India for Children in Conflict with Law (CICWL)	
 Juvenile Justice Board (JJB): Composition of the Board – Powers, functions and responsibility. 	d
 Procedure in relation to children in conflict with law – Special focus on Section 1. (Preliminary assessment in heinous offences). 	5
 Powers of children's court – Observation homes – Special home – Borstal school – Special juvenile police unit – Managing the unrest of children in child car institutions – Managing deviant behaviour in juvenile justice institutions. 	
Chapter – 8 Institutions in India for Children in Need of Care and Protection (CINOCAP)	
 Child Welfare Committee (CWC): Composition of the Committee, Powers, function and responsibility. 	g
 Procedure in relation to children in need of care and protection – Open shelter Place of safety – Foster care – Children's/Shelter homes – Institutions' role (public/private) – Adoption and sponsorship of children. 	

Chapter – 9Juvenile Justice Process.

- Pre-trial, trial and sentencing Probation Juvenile deterrence practices Rehabilitation and social re-integration – After care programs – Nature and role or diversion programs – Disposition process
- Social Investigation and Reporting and its impact on rehabilitation Individua Care Plan (ICP) – Legal and ethical role, Communication skills and attitudes (move away from apathy to empathy) of Practitioners (Special Juvenile Police Unit) in pretrial 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.

References 1 Krishna Pal Malik (2011) "Penology, Victimolog, and Correctional Administration in India' Allahabad Law Agency, Hariyana 2 Siegel J Larry (2006) "Criminology 9th Edition" Thomas Publications, USA. 3 Johnson, H. M., (1960), 'Sociology: A Systematic Introduction', Allied Pub. New Delhi. 4 Ashoka (2014) "Samagra Aparadha Vidhnyana" Sudha Publications, India. 5 Amberley R. Buxton, Susan Rodger, Anne L. Cummings and Alan W. Leschied (2006). The change process in clients with high needs. Canadian Journal of Counseling. 6 Johnson, H. M., (1960), 'Sociology: A Systematic Introduction', Allied Pub. New Delhi.

E-Resources:

- https://sg.inflibnet.ac.in/bitstream/10603/222579/4/04_chapter%201.pdf
- <u>https://study.com/academy/lesson/what-is-juvenile-delinquency-definition-theories-facts.html</u> 21/10/2019
- https://shodhgangotri.inflibnet.ac.in/handle/123456789/3412
- <u>https://en.wikipedia.org/wiki/Child_abuse</u>
- <u>https://www.unicef.org/child-rights-convention/child-rights-why-they-matter</u>
- <u>https://shodhganga.inflibnet.ac.in/bitstream/10603/66825/19/19_conclusion%20and%20suggestions.pd</u>
 <u>f</u>

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	Х	Х	Х	Х		
2. Skilled communicator	Х	Х	Х	Х		
3. Critical thinker and problem solver	Х	Х	Х	Х		
4. Team player/worker	Х	Х	Х	Х		
5. Skilled project manager	Х	Х	Х	Х		
6. Digitally literate	Х	Х	Х	Х		
7. Analytical reasoning	Х	Х	Х	Х		
8. Research-related skills	Х	Х	Х	Х		
9. Multicultural competence	Х	Х	Х	Х		
10. Moral, Ethical & Legal reasoning	Х	Х	Х	Х		
11. Develop scientific temper and self- motivating learnings	Х	Х	Х	Х		
12. Lifelong learner	Х	Х	Х	Х		

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.

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		



Government of Karnataka

Model Curriculum

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 Asses	ssment 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
 Meaning, definition, history and scope Concept of victims in Jews, Islam, Ancient India and Democratic society Chapter- 2 Victim- Offender Relationship 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 	15 11
 Unit- II Victimological Theories Chapter- 3 Major Theories 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). 	

Chart	r A Daychological Typologica of Victim Deartians	,
Cnapte	er-4 Psychological Typologies of Victim Reactions	
•	"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.	
Chapt	er- 5 Classification by Victimologist	
•	Benjamin Mendelsohn	
•	Hans Von Hentig	
•	Abdul Fatah General Classification: Age related Vulnerability, Gender-related victims, Caster	
	system and the Untouchables, Race, Slavery and Apartheid, Poor classes and	
	Bonded labour, Minorities and Majorities.	
Unit-IT	I Victims in CJS and victim assistance	15 Hrs
		151115
Chapt	er- 6 Victims and CJS	
•	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: cour 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.	-
Chapt	er- 7Crime Victim Compensation and Victim Assistance and Advocacy	
	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, Menta 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	
•	ויובמסטובס וטו איונוובסס דוטנבנוטוו ווו גוועומ	
1		

Ref	References							
1	Andrew Karmen, 2015, "Crime Victims: An Introduction to victimology" Cengage Learning.							
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:

- <u>https://lexpeeps.in/rights-of-victim-under-criminal-justice-system-in-india/?amp=1</u>
- <u>https://criminallawstudiesnluj.wordpress.com/2021/03/06/victim -assistance -in- India broadening- the- scope-of-victim-reparations-in-the-criminal-justice-system./</u>
- <u>https://www.rainn.org/articles/crime-victim-compensation</u>
- <u>http://www.nzdl.org/gsdlmod?e=d-00000-00---off-0cdl--00-0---0-10-0---0-direct-10---4</u> ------ <u>0-01--11-en-50---20-about---00-0-1-00-0--4----0-0-11-10-0utfZz-8-</u>00&cl=CL2.8&d=HASH0a79e36697c934fa21e31a.5>=1
- <u>https://www.dps.ms.gov/investigation/victim-assistance-program</u>
- https://www.courts.ca.gov/1107.htm?rdeLocaleAttr=en
- <u>https://journals.sagepub.com/home/irv</u>
- <u>https://journals.sagepub.com/home/vvj</u>

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

Course Outcomes (COs) /	CO1	CO2	CO3	CO4		
Program Outcomes(POs)	001	002	005	001		
	X	X	X	X		
1. Disciplinary knowledge and skills	Λ	А	Λ	А		
2. Skilled communicator	Х	Х	Х	Х		
3. Critical thinker and problem solver	Х	Х	Х	Х		
4. Team player/worker	Х	Х	Х	Х		
5. Skilled project manager	Х	Х	Х	Х		
6. Digitally literate		Х		Х		
7. Analytical reasoning	Х	Х	Х	Х		
8. Research-related skills	Х	Х	Х	Х		
9. Multicultural competence	Х	Х	Х	Х		
10. Moral, Ethical & Legal reasoning	Х	Х	Х	Х		
11. Develop scientific temper and self- motivating learnings	Х	Х	Х	Х		
12. Lifelong learner		Х	Х	Х		

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.

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/	10		10			
Activity						
Case work/Assignment/Field work/Project		10	10			
work etc						
Total	20	20	40			



Model Curriculum

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 Asses	ssment 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 the 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.	o:
Contents	45 Hrs
Unit- I Introduction to Community Policing	15 hours
 Chapter- 1 History of Community Policing Meaning and Definition of Community Policing. Objectives of Community Policing. Essential Components of Community Policing in world context. And philosophical, and practical background of Community Policing Planning and Implementing Community Policing Chapter 2 Community Policing and Crime Prevention Community Policing Models in USA, UK, Asian Countries, European Countries. Community policing strategies for solving problems - Community policing and Crime prevention. 	
Unit- II Community policing in Practices	15 Hrs
 Chapter –3 Activities of Community policing 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: 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
 Chapter –5 Models of Community Policing in India 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): Chapter -6 Community Involvements 	
 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. 	

Ref	erences
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.
6	Van Rooyen, H. and Snyman, D. (1995). Community policing. Silverton: Promedia Publishers and Printers.
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:

- <u>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</u>
- https://bprd.nic.in/WriteReadData/userfiles/file/201905071150110985311Report-1.pdf
- <u>https://ksp.karnataka.gov.in/new-page/Pink%20Hoysala/en</u>
- <u>https://www.mahapolice.gov.in/mohalla-committees/</u>
- <u>https://www.drishtiias.com/daily-updates/daily-news-analysis/friends-of-police-in-tamil-nadu</u>

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

	001	GOO	GOA	004		
Course Outcomes (COs) /	CO1	CO2	CO3	CO4		
ProgramOutcomes(POs)						
1. Disciplinary knowledge and skills	Х	Х	Х	Х		
2. Skilled communicator	Х	Х	Х	Х		
3. Critical thinker and problem solver	Х	Х	Х	Х		
4. Team player/worker	Х	Х	Х	Х		
5. Skilled project manager	Х	Х	Х	Х		
6. Digitally literate		Х		Х		
7. Analytical reasoning	Х	Х	Х	Х		
8. Research-related skills	Х	Х	Х	Х		
9. Multicultural competence	Х	Х	Х	Х		
10. Moral, Ethical & Legal reasoning	Х	Х	Х	Х		
11. Develop scientific temper and self- motivating learnings	Х	Х	Х	Х		
12. Lifelong learner		Х	Х	Х		

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.

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			



Government of Karnataka

Model Curriculum

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	V	
Course Title	Forensic Biology and Serolog	y (Theory)		
Course Code:	CFSE1T-C	No. of Credits	03	
Contact hours	3 Hrs/Week	Duration of SEA/Exam 2 hours		
Formative Asses	ssment 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: Become aware about the application of knowledge of Forensic Biology and Serology in CJS

Contents	45 Hrs
Unit- I Introduction to Forensic Biology	15 hours
Chapter- 1 Forensic Biology	
Scope and importance of Forensic Biology in crime investigation	
• Hair- Introduction, Types, collection and examination, identification of spices through	L
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	
• 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	
• 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.	

Chapter – 4: DNA Fingerprinting
• Introduction of DNA.
Composition of DNA.
• DNA fingerprinting techniques,
Importance of DNA fingerprinting in criminal identification
Unit-III Forensic Biology and Serology
Chapter –5 Examination of Biological Evidences
• 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.
Chapter-6: Forensic Entomology
• 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 Race, R.R, and Sanger, R. (1975) : Blood Groups in Man. Blackwell Scientific, Oxford. 1 Saferstein, R. (1982): Science Handbook, Vol. I, II, & III, Prentice Hall New Jersey. 2 Curry, A. S. (1965): Methods of Forensic Science, Vol IV, Interscience, New York. 3 Robertson (1999): Forensic examination of Hair. Francis & Taylor, USA. 4 Gilblet, E. (1969) : Markers in Human Blood, Davis, Pensylvania 5 Culliford, B.E. (1971) The Examination and Typing of Blood Stains, US Deptt. of Justice, 6 Washingron 8. Dunsford, I and Bowley, C. (1967) : Blood Grouping Techniques, Oliver & Boyd, 7 London Basin Et al. A laboratory Manual for Human Blood analysis. Kamla Raj Enterprises. 8 Li R. (2008) Forensic Biology, Taylor & Francis Group LLC. 9

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 •

15 Hrs

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	Х	Х	Х	Х		
14. Skilled communicator	Х	Х	Х	Х		
15. Critical thinker and problem solver	Х	Х	Х	Х		
16. Team player/worker	Х	Х	Х	Х		
17. Skilled project manager	Х	Х	Х	Х		
18. Digitally literate		Х		Х		
19. Analytical reasoning	Х	Х	Х	Х		
20. Research-related skills	Х	Х	Х	Х		
21. Multicultural competence	Х	Х	Х	Х		
22. Moral, Ethical & Legal reasoning	Х	Х	Х	Х		
23. Develop scientific temper and self- motivating learnings	Х	Х	Х	Х		
24. Lifelong learner		Х	Х	Х		

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.

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		



Model Curriculum

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

Course Pre-requisite(s):

CourseOutcomes(**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.

	I
Contents	60 Hrs
Unit- 1 Introduction to Dactyloscopy/Poroscopy/Dermatoglyphics	15 Hrs
 Chapter-1 Nature of Fingerprints 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 Basic Features of Fingerprints Law of Individuality. Law of Permanence. Principle of Immutability. 	
Unit- 2 Finger prints Characteristics.	15 Hrs
 Chapter- 3 Nature of Finger Print Characteristics. Fingerprint Patterns. Fingerprint Peculiarities/Minutiae and Characteristics 	
 Chapter- 4 Classification of Fingerprints 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	
Chapter- 5 Examination of Latent Prints		
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 		
Chapter- 6 Sample Prints		
Ink, Pad and Paper		
Biometric Impression on Scanner/ Live Scans		
Other Methods.		

References

Ittit	
1	Cliff Wang, Ryan M. Gerdes, Yong Guan, and Sneha Kumar Kasera. 2016. Digital Fingerprinting (1st.
	ed.). Springer Publishing Company, Incorporated.
2	Hawthorne, M. (2008). Fingerprints: analysis and understanding. CRC Press.
3	B.S. Nabar "Forensic Science in Crime Investigation" English Paperback, Publisher: Asia Law House,
	Edition: 2018.
4	Andrew R.W.Jackson, Julie M Jackson, 2011, "Forensic Science", Pearson Education Limited.
5	J C Upshaw Downs, Anjali Ranadive, Swienton, 2002, "Ethics in Forensic Science, Academic Press
	Publications.
6	Jay A Siegel, KatheyMirakovits, 2013, "Forensic Science: The Basics", CRC press.
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
- <u>https://forensicexpertinvestigation.com/fingerprint-identification-evaluation-examination/</u>
- <u>https://www.ojp.gov/pdffiles1/nij/225320.pdf</u>
- <u>https://www.interpol.int/en/How-we-work/Forensics/Fingerprints</u>
- <u>https://www.legalserviceindia.com/legal/article-2463-fingerprints -a-forensic-tool-for-criminal-investigation.html</u>

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

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

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.

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			



Government of Karnataka

Model Curriculum

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	V
Course Title	Forensic Instrumentation (The	eory)	
Course Code:	CFSV1T-B	No.of Credits	03
Contact hours	3 Hrs/week	Duration of SEA/Exam	2 hours
Formative Asses	ssment 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	
 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	
 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	
Meaning and Importance of Microscope	
 Fundamental principles of Microscope 	
Chapter-4 Different types of microscopes.	
Electron microscope.	
Comparison Microscope.	
Forensic applications of microscopy.	

Unit-III Experiential Learning (Practicals)	30 Hrs
Chapter –5	
 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. 	

Ref	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 PractitionersAcademic 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; SpectroscopicMethods in Organic Chemistry, 4th Edn, Tata McGraw- Hill Publishing Company, New Delhi, 1994.				
8	Modern Criminal Investigation – Sodderman and O ^{rr} 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:

- <u>https://scholar.google.com/scholar?hl=en&as_sdt=0%_2C5&_q=fo_rensic+instrumentation+techniqu_es+&btnG=#d=gs_qabs&t=1658855388409&u=%23p%3Dtv9ARGv2ZRAJ</u>
- <u>https://books.google.co.in/books?hl=en&lr=&id=iD5YvQORT9kC&oi=fnd&pg=PR1&dq=info:7</u> <u>Me7e0RGzywJ:scholar.google.com/&ots=zuTscBCVV_&sig=HU4RV3aiwkWYGjPk5nX1zgORDRw</u> <u>&redir_esc=y#v=oFormative_Assessment_are_compulsoryage&q&f=fals</u>
- <u>https://scholar.google.com/scholar?hl=en&as_sdt=0%_2C5& q=fo_rensic+instrumentation+techniqu_es+&oq=#d=gs_qabs&t=1658855584727&u=%23p%3DrW2OIo8XUUsJ</u>
- <u>https://scholar.google.com/scholar?hl=en&as_sdt=0%_2C5& q=fo_rensic+instrumentation+techniqu_es+&oq=#d=gs_qabs&t=1658855627870&u=%23p%3DS9fO2loICjEJ</u>
- <u>https://books.google.co.in/books?hl=en&lr=&id=DiYSBQAAQBAJ&oi=fnd&pg=PP1&dq=info:My4gsGWaA2oJ:scholar.google.com/&ots=yRfhqBfAfb&sig=RYf5GT-AX_bbBSNiT9fjE3xrzgA&redir_esc=y</u>

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	Х	Х	Х	Х		
2. Skilled communicator	Х	Х	Х	Х		
3. Critical thinker and problem solver	Х	Х	Х	Х		
4. Team player/worker	Х	Х	Х	Х		
5. Skilled project manager	Х	Х	Х	Х		
6. Digitally literate		Х		Х		
7. Analytical reasoning	Х	Х	Х	Х		
8. Research-related skills	Х	Х	Х	Х		
9. Multicultural competence	Х	Х	Х	Х		
10. Moral, Ethical & Legal reasoning	Х	Х	Х	Х		
11. Develop scientific temper and self- motivating learnings	Х	Х	Х	Х		
12. Lifelong learner		Х	Х	Х		

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.

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/	10		10	
Activity				
Case work/Assignment/Field work/Project		20	20	
work etc				
Total	20	30	50	



Government of Karnataka

Model Curriculum

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	nours 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

- CO2: Understand the concepts of quality audits
- CO3: Able to understand the new concepts of Management requirements and Assessor guide
- C04: 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			
Chapter- 1 Introduction to Laboratory Quality Management			
 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 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			
• Definition of Quality, Quality Management System (based on People, Technical and Document),			

Quality Manual, Quality Manager, Total Quality, Quality Assurance, Quality Control, Quality Planning,	ity
Classification of Quality Management System.	
Chapter-4	
• Quality audit- Quality Management System, classification of quality audit, Organization external and internal audits.	n of
• 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
Chapter –5	
 Management Requirements: organizational, document control, subcontracting or tests and calibrations control of Non-conforming testing / calibration work, Corrective and preventive actions, Management Review. 	of
• 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.	

Ref	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. <u>https://www.researchgate.net/publication/359867610_Laboratory_Quality_Management_System</u>
- 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. <u>https://static1.squarespace.com/static/603ab50ab81d5532a0a4a42b/t/6045390b5635245a53b1b055/161</u> 5149325278/11_lqms_en.pdf

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	Х	Х	Х	Х		
14. Skilled communicator	Х	Х	Х	Х		
15. Critical thinker and problem solver	Х	Х	Х	Х		
16. Team player/worker	Х	Х	Х	Х		
17. Skilled project manager	Х	Х	Х	Х		
18. Digitally literate		Х		Х		
19. Analytical reasoning	Х	Х	Х	Х		
20. Research-related skills	Х	Х	Х	Х		
21. Multicultural competence	Х	Х	Х	Х		
22. Moral, Ethical & Legal reasoning	Х	Х	Х	Х		
23. Develop scientific temper and self- motivating learnings	Х	Х	Х	Х		
24. Lifelong learner		Х	Х	Х		

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.

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 Forensic Sci	Criminology and ence	Semester	VI	
Course Title	Forensic Dao	Forensic Dactyloscopy and DNA Fingerprinting ((Theory)			
Course Code:	CFSC14T		CFSC14T No. of Credits		
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: Understanding the concept of Forensic Dactyloscopy and DNA 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

Contents	60 Hrs
Unit- I : Introduction to Dactyloscopy	15 hours
 Chapter -1 Meaning of Dactyloscopy 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, Embryo genesis. Dermatological formation and Diseases influence on the damages of fingerprints, Biometric uniqueness, and Finger prints as Evidence. 	
 Chapter -2 Classification of Finger Prints Patterns 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, Final classification and Single digit classification system 	

Fingerprint Patterns: Fingerprint Peculiarities/Minutiae and Characteristic.	
Chapter -3 Significance of palm prints	
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 of Finger Prints.	15 hours
Chapter – 4 Development of Finger Prints	
Types of Chance Prints at Scene of Crime	
Development of Latent Finger Prints.	
Chapter- 5 Physical Methods for Latent Fingerprint Development	
 Powder Methods: Regular: - Black powder and white powder. Metallic: Aluminium 	-
powder and Magnetic black powder. Fluorescent: Greenescent and Pinkescen	
fluorescent powders.	
Iodine Fuming Method.	
Chapter-6 Chemical and Photography Methods for Fingerprint Development	
 Gentian Violet, Cyanoacrylate and Silver Nitrate Method. 	
Ninhydrin Method etc.	
 Developing of Latent Prints and Visible prints by Slanting Photograph. 	
Chapter-7 Biometric, Digital Imaging and Green Methods	
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 finger print data stick 	
fingerprint detection.	
Unit-III Foot Prints	15 hours
Chapter- 8 Development of Foot Prints	
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 DNA Finger Prints	15 hours
Chapter -9 Meaning and Importance of DNA Finger Prints	
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.	
Chapter – 10 Legal provisions Of DNA Finger Prints.	
 Source of DNA: Blood, Saliva, Hair, Skin Tissues and Nail etc. 	

Ref	erences-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-investigationindustrialapplications https://www.taylorfrancis.com/chapters/mono/10.1201/9781420041347-7/methods-latentfingerprintdevelopment-ashim-datta-henry-lee-robert-ramotowski-gaensslen https://www.sciencedirect.com/science/article/abs/pii/0031320395001069#:~:text=Fingerprints%20a re%20classified%20into%20five,loop%2C%20right%20loop%20and%20whorl. https://www.cse.msu.edu/~cse802/Papers/802_FPClassification.pdf

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

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

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.

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/	10		10	
Activity				
Case work/Assignment/Field work/Project		10	10	
work etc				
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 A			Summative A	ssessment	25 Marks	
			Practical Con	tent		
Unit-I Examina	tion of F	ingerprints (30	Hrs)			
 Identification Ridge tracing 	5, ,					
Unit-II Examina	ation of]	Footprints (30 H	rs)			
 Recording of foot prints Identification of Gait patterns Tracing of surface footprints 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					
Formative Assessment as per guidelines					

Ref	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 Asses	ssment 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 15 Hrs Unit-1 Introduction Corporate Crimes Chapter-1 Nature of Corporate Crime Meaning and Definition of Corporate Crimes. • Various Types of Corporate Crimes • Famous Cases of Corporate Crimes. Chapter- 2 Forms of Corporate Crimes 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. Meaning & Definition of Fraud ٠ Types of Fraud: - Individual & Corporate • Characteristics of Fraud • Trends of Scams: National & Global Perspective Chapter- 4 Fraud in Banking Sector Definition & Scope of Fraud in Banking Sector Banking Impersonation Chapter-5 Types of Frauds 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	
Definition, Nature & Scope of Insurance	
Losses due to Insurance Frauds	
Chapter- 7 Types of Insurance Frauds	
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.	
 Laws, Regulation and Supervision 	
Corporate Governance	
Chapter-9 Private Sector in India	
Governance of Private Sectors in India.	
Laws, Regulation and Supervision	
Suspicious Transaction Reporting	

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

E-Resources:

- <u>https://www.britannica.com/topic/corporate-crime</u>
- <u>https://www.financierworldwide.com/roundtable-corporate-fraud-nov22#.ZDZkwPZBzIU</u>
- <u>https://www.weforum.org/communities/gfc-on-good-governance</u>
- <u>https://gppreview.com/2022/12/12/criminal-liability-of-corporations-in-india-an-environmental-perspective/</u>
- https://www.datavisor.com/wiki/types-of-bank-frauds/
- <u>https://www.investopedia.com/terms/i/insurance-fraud.asp</u>
- 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	Х	Х	Х	Х		
14. Skilled communicator	Х	Х	Х	Х		
15. Critical thinker and problem solver	Х	Х	Х	Х		
16. Team player/worker	Х	Х	Х	Х		
17. Skilled project manager	Х	Х	Х	Х		
18. Digitally literate		Х		Х		
19. Analytical reasoning	Х	Х	Х	Х		
20. Research-related skills	Х	Х	Х	Х		
21. Multicultural competence	Х	Х	Х	Х		
22. Moral, Ethical & Legal reasoning	Х	Х	Х	Х		
23. Develop scientific temper and self- motivating learnings	Х	Х	Х	Х		
24. Lifelong learner		Х	Х	Х		

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.

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

Course Title	Examination of Frauds and Corporate Crimes - VIII (Practical)			Practical Credits	2
Course Code	DSC-A	17		Contact Hours	60 Hrs
Formative Asses	ssment	25 Marks	Summative A	ssessment	25 Marks
		Practical Con	ntent		
Unit-I Analysis	of Corp	orate Crimes (30 Hrs)			
1. To analysis th	e Famou	is Indian Corporate Crimes.			
 Examination and Identification of the Forged Documents: a. Check Books, affidavits and other Government Documents b. Counterfeit of Notes and Coins. Examination of Forged Signature 				nts	
Unit-II Examination of Bank and IT Frauds (30 Hrs)					
 Evaluate and study of preventive measures towards Frauds in local and national banks (Plastic Cards, E-transactions, Gold and other ornaments) 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			
Formative Assessment as per gi	udelines			

Ref	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 Semest Forensic Science		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		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 Definition, meaning and Importance of Forensic Photography Fundamentals of light and vision, light sources. Historical Development of Forensic Photography 	
Chapter- 2 Types of Photography	
Types of Photographic DevicesUsages of various Photographic Devices.	
Unit- 2 Types of Photography	15 Hrs
 Chapter- 3 Various kinds of Photographic Tools Nature & Mechanism of Different kinds of Photographic devices Basic Principles of Photography 	
 Chapter- 4 Significance of Photography in Forensic Science 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 Methods and Tactics of Surveillance Photography Use of photography in reconstructing the scene of crime Chapter- 6 Photography and Crime scene. Meaning and definition of Art factual evidences. Types of Art factual evidences 	
Unit- 4 Digital Photography	15 Hrs
Chapter- 7 Nature of Digital Photography	
 Meaning and scope of Digital Photography 	
Mechanism of Digital Photography	
Chapter- 8 Importance of Digital Photography	
Various kinds of Digital Photography	
Admissibility of Digital Photography 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. CRCPress LLC (2001)
9	R.E. Jacobson, S.F.Ray, G.G.Attridge, The Manual of Photography- Photographic andDigital Imaging, N.R. Oxford
10	Blitzer, H.L and Jacob, J; Forensic Digital Imaging and Photography, Academic Press,2002

E-Rresources:

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

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

	CO1	CO2	CO3	CO4		
Course Outcomes (COs) /	COI	02	COS	C04		
Program Outcomes(POs)						
13. Disciplinary knowledge and skills	Х	Х	Х	Х		
14. Skilled communicator	Х	Х	Х	Х		
15. Critical thinker and problem solver	Х	Х	Х	Х		
16. Team player/worker	Х	Х	Х	Х		
17. Skilled project manager	Х	Х	Х	Х		
18. Digitally literate		Х		Х		
19. Analytical reasoning	Х	Х	Х	Х		
20. Research-related skills	Х	Х	Х	Х		
21. Multicultural competence	Х	Х	Х	Х		
22. Moral, Ethical & Legal reasoning	Х	Х	Х	Х		
23. Develop scientific temper and self- motivating learnings	Х	Х	Х	Х		
24. Lifelong learner		Х	Х	Х		

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.

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



Program Name	BA/B.Sc. in Criminology an Forensic Science	nd	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		Sun	mative 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 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 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 Domestic crimes and Transnational crimes Meaning and definition Characteristics of transnational crimes Critical role of facilitators 	
 Chapter -4 Types of Transnational Crimes Types of transnational crimes; Drug trafficking, Illicit arms trafficking, Humar 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 	

 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
Chapter -5 Crimes against humanity and genocide	
 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. 	
Chapter -6 International interest	
UNO, International Human rights, Victims of Genocide, Religious oppressions. Geneva Convention	
Chapter -7 Legal Provisions in India	
• 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	
Chapter-8 International Legal Frameworks	
The United Nations convention against Transnational organized crime 2000	
The Naples political declaration and Global action plan.	
Extradition treaties signed among world nations.	

Ref	erences
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.
	Frank.E.Hagan (2013), "Introduction to Criminology" 8th Edition, Sage Publications Inc.
6	Freda Adler, Gerhard O.W.Muller, William S. Laufer, 2007, "Criminology " 6th 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:

- <u>http://hdl.handle.net/10603/96759</u>
- <u>Combating Transnational Organised Crime (unodc.org)</u>
- 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) /	CO1	CO2	CO3	CO4		
ProgramOutcomes(POs)						
13. Disciplinary knowledge and skills	Х	Х	Х	Х		
14. Skilled communicator	Х	Х	Х	Х		
15. Critical thinker and problem solver	Х	Х	Х	Х		
16. Team player/worker	Х	Х	Х	Х		
17. Skilled project manager	Х	Х	Х	Х		
18. Digitally literate		Х		Х		
19. Analytical reasoning	Х	Х	Х	Х		
20. Research-related skills	Х	Х	Х	Х		
21. Multicultural competence	Х	Х	Х	Х		
22. Moral, Ethical & Legal reasoning	Х	Х	Х	Х		
23. Develop scientific temper and self- motivating learnings	Х	Х	Х	Х		
24. Lifelong learner		Х	Х	Х		

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 Mark Activities/Assignment/Seminar/Presentation &		ten Tests,	
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



Government of Karnataka

Model Curriculum

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

4 <i>2</i> TT
45 Hrs
15 hours
15 Hrs

(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	
 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	
Phobias, Guilt and Crimes	
Sexual Perversions and Crime	
Manias and Crime	
Scope of forensic psychology	
Importance of Psychology in CJS	

Ref	erences
1	Bartol, Curt R 7 Bartol, Anne M, (2008) Current perspectives in Forensic Psychologyand 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 andDigital Imaging, N.R. Oxford

E-Resources:

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

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

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.

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

E-Resources:

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

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

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.

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):	
CourseOutcomes(COs):Afterthesuccessfulcompletionofthecourse,thestudentwillbeableto: 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 C	JS
Contents	60 Hrs
Unit- I Introduction to Forensic Documents	15 hours
Chapter- 1 Documents and Forensic Documents	
 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	
 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	
Type written documents	

Drinted methor	
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
Chapter – 4 Identification of the Written documents	
 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 Chapter- 5 Advances in Document Examination 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
Chapter – 6 Identification of Different Types of Documents	
 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. 	

Ref	erences
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:

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

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	Х	Х	Х	Х		
14. Skilled communicator	Х	Х	Х	Х		
15. Critical thinker and problem solver	Х	Х	Х	Х		
16. Team player/worker	Х	Х	Х	Х		
17. Skilled project manager	Х	Х	Х	Х		
18. Digitally literate		Х		Х		
19. Analytical reasoning	Х	Х	Х	Х		
20. Research-related skills	Х	Х	Х	Х		
21. Multicultural competence	Х	Х	Х	Х		
22. Moral, Ethical & Legal reasoning	Х	Х	Х	Х		
23. Develop scientific temper and self- motivating learnings	Х	Х	Х	Х		
24. Lifelong learner		Х	Х	Х		

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.

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/	10		10			
Activity						
Case work/Assignment/Field work/Project		20	20			
work etc						
Total	20	30	50			



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

Course Pre-requisite(s):	
 CourseOutcomes(COs): Afterthesuccessful 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	۱.
Contents	60 Hrs
Unit- I Introduction GIS and GPS	15 Hrs
Chapter 1-Overview of GIS 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 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. 	
Unit-IICartography and Spatial Data	15 Hrs
 Chapter 3- Introduction to Cartography 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	
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	
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	
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.	

Crime prevention and control Strategies.

Deferences

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

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.

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



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

Course Pre-requisite(s):

Course Outcomes (COs): A fter the success ful 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	
• Crime prevention: Definition and History	
• Types of crime prevention: Primary, Secondary and Tertiary	
Community approach in crime prevention	
Chapter 2: Theories of Crime Prevention	
• 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	
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	
• Short-term Prevention,	

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	
• 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	
SARA Model (Scanning, Analysis, Response, Assessment) and	
• Ekbloms 5Is (Intelligence, Intervention, Implementation, Involvement and Impact)	

Ref	erences
1	Tilley, N. (2005). Handbook of Crime Prevention and Community Safety (1st 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 (27th 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.
Doce	

E- Resources:

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

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

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

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.

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		



GovernmentofKarnataka

Model Curriculum

Program Name	BA/B.Sc. in Criminology and Forensic Science	Semester	VI
Course Title	Investigative Journalism (Theor	·y)	
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. 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. 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. 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.

- Panama Papers and Watergate Scandal.
- Observation and planning techniques.
- Cultivating sources.
- Developing the project.

Ref	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.						
	Syed Nazakat & the KAS Media Programme.						
3	The Global Investigative Journalism Casebook UNESCO series on Journalism Education						

E-Resources:

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

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

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

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.

Formative Assessment 40 (Weightage in Marks includes: Written Tests, Activities/Assignment/Seminar/Presentation &Attendance)					
Assessment Occasion/type C1 C2 Total M					
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		

<u>CBCS Question Paper Pattern for UG Semester</u> <u>DSC, DSEC & OEC</u>

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

Section-A

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

Section-B

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

Section-C

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