DAVANGERE UNIVERSITY, DAVANGERE

PROGRAM/COURSE STRUCTURE AND SYLLABUS
Choice Based Credit System (CBCS)
Designed in accordance with
Learning Outcome-Based Curricular Framework (LOCF)
Under National Education Policy (NEP) 2020
for

B.A/B.Sc
Criminology AND Forensic Science

V and VI Semester

w.e.f

Academic Year 2023-24 and Onwards

DEAN
Faculty of Arts
Davangere University
Shivagangotri, Davangere.

3/8/23

3/8/23

ANNEXURE II

B1 (Revised) Model Program Structures for the Under-Graduate Programs in Universities and Colleges in Karnataka

B.A. / B.Sc. (Basic / Hons) Criminology and Forensic Science

With practical with one Major (A) in 3rd Year and the other as Minor (B)

Sem.	Type of Course	Theory/ Practical	Course Code	Course Title	Instruction hour/week	Total hours / sem	Duration Of Exam	Marks			Credits
								Formative	Summative	Total	
V	CFSC9 T	Theory		Medical Jurisprudence and Toxicology (4)	04hrs	56	02hrs	40	60	100	04
	CFSC11 T	Theory		**Digital Forensics and Cybercrime (4)**	04hrs	56	02hrs	40	60	100	04
	CFSC10 P	Practical		**Medico-legal Examination-V (4)**	04hrs	52	02hrs	40	60	100	04
	Other subject										04
	Other subject										04
	Other subject										04
	SEC-4			Employability Skill/ Cyber Security							03
	Total										**26**
VI	CFSC14T	Theory		Dactyloscopy and DNA Fingerprinting (4)	04hrs	56	02hrs	40	60	100	04
	CFSC16T	Theory		Corporate Crimes (4)	04hrs	56	02hrs	40	60	100	04
	CFSC15 P	Practical		Examination of Fingerprints & Footprints (4)	04hrs	52	02hrs	40	60	100	04
	Other subject										04
	Other subject										04
	Other subject										04
	SEC-5 Internship-1			Internship							02
	Total										**26**

Registrar
Davangere University
Shivagangotri, Davangere

06/09/23
DR. NATARAJ
BOS member

DEAN
Faculty of Arts
Davangere University
Shivagangotri, Davangere.

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Annexure III

V and VI Semester Syllabus

Program Name	**BA/B.Sc. in Criminology and Forensic Science**	Semester	V
Course 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 in Research. • Common medico-legal problems in Hospital practice, Medico-legal, ethical & social problems in relation to AIDS.	
Unit- II Introduction to forensic medicine	15 Hrs
Chapter- 3 Meaning of forensic medicine, • Definition, Scope Relevant forensic medicine • History of Forensic Medicine • Need, Scope, Importance and probative value of medical evidence in Crime Investigation Chapter- 4 Thanatology • Thanatology, death, its causes, stages of death, signs of death and changes	

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following death, Asphyxia and accidents, • Death due to heat, cold and electrocution • Injuries classification and medico legal aspects • Sexual offences • Forensic psychiatry	
Unit-III Forensic Toxicology	15 Hrs
Chapter – 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. Chapter- 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	
Unit-IV Major Poisons	15 Hrs
Chapter -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 Chapter -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.	

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

E-Resources:

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

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

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

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

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

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

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

Course Pre-requisite(s):

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

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

Contents	**60 Hrs**
Unit- I Introduction to Digital Forensics	15 Hrs

Chapter- 1 Basics of Computer

- 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	15 Hrs
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 Screen 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. **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 traffic control functions. • DNS Enumerations, Analysis of Deep web/ dark web. • IP security architecture, Security protocols, IPSec, Web Security – Firewalls, IDS, IDPS – Types and Technologies. • Authentication Mechanisms: Passwords, Cryptographic authentication protocol, Kerberos, X.509 LDAP Directory. Digital Signatures. Web Security: SSL Encryption, TLS, SET. Intrusion detection.	

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

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

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

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

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

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

Web Sources:

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

Course Title	**Medico-legal Examination (Practical)**	Practical Credits	**2**
Course Code	CFSC10P	Contact Hours	**60 Hrs**
Formative Assessment	**25 Marks**	Summative Assessment	**25 Marks**

Practical Content
Unit-1 Introduction to Medico-legal Examination (30 Hrs)
1. Medico-legal Aspects of Homicidal, Suicidal and Accidental. 2. Examination of human skeleton. 3. Identification of Sex and Age through Bone remains. 4. Examination of different wounds and Injuries.
Unit-II Examination of Hair and Fiber (30 Hrs)
5.Examination of hair 6. Morphology of hair 7.Examination and Comparison of Natural and Synthetic fibers

Pedagogy: Conduct experiments, applying forensic techniques

Formative Assessment for Practical	
Assessment Occasion/type	**Marks**
Record	05
Plan, Procedure & Conduction	05
Results & Discussion	05
Applying Forensic Techniques	05
Viva	05
Total	**25 Marks**
Formative Assessment as per NEP guidelines are compulsory	

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	**Forensic Dactyloscopy and DNA Fingerprinting ((Theory)**		
Course Code:	**CFSC14T**	No. of Credits	**4**
Contact hours	**4 Hrs/Week**	Duration of SEA/Exam	**2 hours**
Formative Assessment Marks	**40**	Summative Assessment Marks	**60**

Course Pre-requisite(s):

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 Pinkescent 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 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.	

References-Suggested Readings

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

E-Resources:

https://www.britannica.com/topic/dactyloscopy https://forensicfield.blog/dactyloscopy/
https://www.researchgate.net/publication/355065615_Fingerprint_Development_Techniques_A_Rev iew
https://www.wiley.com/en-us/Fingerprint+Development+Techniques:+Theory+and+Application-p9781119992615
https://www.ijert.org/an-advanced-method-fingerprint-recognition-and-analysis-for-all-investigationindustrial-applications https://www.taylorfrancis.com/chapters/mono/10.1201/9781420041347-7/methods-latentfingerprint-development-ashim-datta-henry-lee-robert-ramotowski-gaensslen
https://www.sciencedirect.com/science/article/abs/pii/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) / Program Outcomes(POs)	CO1	CO2	CO3	CO4			
13. Disciplinary knowledge and skills	X	X	X	X			
14. Skilled communicator	X	X	X	X			
15. Critical thinker and problem solver	X	X	X	X			
16. Team player/worker	X	X	X	X			
17. Skilled project manager	X	X	X	X			
18. Digitally literate	X	X		X			
19. Analytical reasoning	X	X	X	X			
20. Research-related skills	X	X	X	X			
21. Multicultural competence	X	X	X	X			
22. Moral, Ethical & Legal reasoning	X	X	X	X			
23. Develop scientific temper and self-motivating learnings	X	X	X	X			
24. Lifelong learner	X	X	X				

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

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

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

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

Course Pre-requisite(s):

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

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

Contents	**60 Hrs**
Unit- 1 Introduction Corporate Crimes	15 Hrs
Chapter-1 Nature of Corporate Crime • 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 • 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	
1	Anabui, Farad and Kakabadse, Andrew, 2004, Corporate sabotage, Jaico Publishing House.
2	Blum Richard H, 1972, Deleivers and Deceived, Charles, C. Thomas Publishers.
3	Bologna, Jack, 1984, Corporate Fraud, Butterworth Publishers.
4	Celia Wells, "Corporations and Criminal Responsibility".
5	Essential Commodities Act, 1955, 2005, Universal Law Publishing Co. Pvt. Ltd.
6	Ghosh Murrain, 1979, Black money – The case for India, Subarna Rekha, Calcutta.
7	Green Timothy, 1977, The Smuggling Business, Aldus Books, London. Internationally, Kogan Pagr Ltd.
8	Lal Bhure, 2003, Money Laundering: An insight into the dark world of Financial Frauds, Siddharth Publications.
9	Nabhi's Income Tax Guidelines and Mini Ready Reeckoner, 2009, Anabhi Publication Bare Acts:
10	Pitchandi Nand Sivamurthy A, 1985, Insurance Frauds, the Indian Soceity of Criminology, Department of Psychology, Madras.

E-Resources:

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

Course Title	**Examination of Fingerprints and Footprints (Practical)**	Practical Credits	2
Course Code	CFSC15P	Contact Hours	**60 Hrs**
Formative Assessment	**25 Marks**	Summative Assessment	**25 Marks**

Practical Content

Unit-I Examination of Fingerprints (30 Hrs)

1. Recording of fingerprints – Pattern analysis,
2. Identification of Ridge characteristics,
3. Ridge tracing & ridge counting, Comparison of fingerprints
4. Developing latent fingerprints – Physical methods & Chemical Methods

Unit-II Examination of Footprints (30 Hrs)

5. Recording of foot prints
6. Identification of Gait patterns
7. Tracing of surface footprints
8. Casting method of Sunken footprints

Pedagogy: Conduct experiments, applying forensic techniques

Formative Assessment for Practical

Assessment Occasion/type	Marks
Record	05
Plan, Procedure & Conduction	05
Results & Discussion	05
Applying Forensic Techniques	05
Viva	05
Total	**25 Marks**

Formative Assessment as per NEP guidelines are compulsory

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.

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

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

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

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

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

CBCS Question Paper Pattern for UG Semester
DSC, DSEC & OEC

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

Section-A

Answer any TEN of the following objectives questions. Each question carries equal marks	Marks 1X10=10

Q1.
a.
b.
c.
d.
e.
f.
g.
h.
i.
j.
k.
l.

Section-B

Answer any SIX of the following questions. Each question carries equal marks	Marks 5X6=30

Q2.
Q3.
Q4.
Q5.
Q6.
Q7.
Q8.
Q9.

Section-C

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

Q10.
Q11.
Q12.

DEAN
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3/8/23

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