



UNIVERSITY OF CALICUT

Abstract

Bachelor of Arts (Criminology and Police Science) Programme CUCBCSS UG-Syllabus with effect from 2018 admission onwards-Approved- Implemented- Orders issued.

G & A - IV - B

U.O.No. 11863/2017/Admn

Dated, Calicut University.P.O, 22.09.2017

- Read:-*1) Minutes of the BoS Dated 06.07.17.
2) Minutes of the Faculty of Humanities Dated: 12.07.2017
3) Minutes of the Academic Council Dated 17.07.2017.
4) Orders of the Vice Chancellor in File of even no. Dated 07.08.2017

ORDER

Vide paper read as first above, the Syllabus of the Bachelor of Arts (Criminology and Police Science) Programme finalised and approved by the Board of Studies in Criminology with effect from 2018 admission onwards.

Vide paper read as second above, the Faculty of Humanities approved the syllabus of the Bachelor of Arts (Criminology and Police Science) Programme as approved by the Board of Studies in Criminology.

Vide paper read as third above, the Academic Council held on 17-07-2017 resolved to approve the Minutes of the Meeting of the Faculty of Humanities alongwith the Boards of Studies coming under the Faculty.

Vide paper read as fourth above, sanction has been accorded by the Vice Chancellor to implement the resolutions of the Academic Council.

Sanction has, therefore, been accorded to implement the Syllabus of the Bachelor of Arts (Criminology and Police Science) Programme with effect from 2018 admission onwards.

Orders are issued accordingly.
(Syllabus appended).

Ajitha P.P

Joint Registrar

To

The Principals of all affiliated colleges.

Copy to:

PA to CE/EX IV section/EG section/JCE II/AR BA Branch/BA Confi SO/Director
SDE/SDE Exam Wing/System Administrator with a request to upload the syllabus in the
University website/GA I F section/Library/Enquiry/SF/DF/FC/.

Forwarded / By Order

Section Officer

UNIVERSITY OF CALICUT

**Under Graduate Programme in
Criminology and Police Science**

**Semester wise Details of Courses
recommended by Board of Studies in
Criminology**

UNIVERSITY OF CALICUT

**Choice Based Credit Semester System ICCSS] For Under Graduate
Curriculum in Criminology and Police Science**

(from 2018 Admission onwards)

The Under Graduate programme in Criminology and Police Science includes

(a) Common Courses

(b) Core Courses

(c) Complementary Courses

(d) Open Courses and

(e) Project

The number of Courses for the restructured U.G. Programme Criminology and Police Science should contain 10 Common Courses, 15 Core Courses including one Choice based course for the Electives, eight Complementary Courses from the relevant subjects for complementing the Core of the study, an Open Course offered by other streams and a Project.

Common Courses:

Every Under Graduate student shall undergo 10 Common Courses (38 Credits) for completing the Programme.

Core Courses: Core courses are the courses in the major (core) subjects of the U.G. Programme.

Core courses are offered by the parent Department.

Complementary Courses

Complementary Courses cover one or two disciplines that are related to Courses: the core subject and are distributed in the first four Semesters.

Open Courses: There shall be one Open course in Core subjects in the Fifth Semester. The Open course shall be open to all students in the department except the students in the parent department.

Project: The students have to submit a project at the end of the sixth semester. The work of the project starts from the fifth semester.

Credits: Each course shall have certain credits for passing the U.G. Programme. The student shall be required to achieve a minimum of 120 credits of which 38 credits shall be from Common courses, 78 credits from Core courses and Complementary courses and 4 credits from the Open course.

Attendance: The minimum requirement of attendance during a Semester shall be 75% of each course. Condonation of shortage of attendance to a maximum of 10 days in a Semester, subject to a maximum of two times during the whole period of a Degree programme, may be granted by the University.

Examination: There shall be University examinations at the end of each semester. Duration of the examination shall be 3 hours. A question paper may contain Objective type, Short answer type, Paragraph type and essay type questions. Project evaluation shall be conducted at the end of the Sixth semester.

Evaluation and Grading : The evaluation scheme for each course shall contain two parts:

1. Internal evaluation
2. External evaluation.

25% weight age shall be given to the internal evaluation. The remaining 75% weightage shall be given to the external evaluation

Weightage of Internal and External evaluation.

Evaluation	Weightage
Internal	1(or 25%)
External	3 (or 75%)

Both internal and external evaluation shall be carried out using Direct Grading System.

Internal evaluation: The internal evaluation shall be based on a pre-determined, transparent system involving written tests, assignments, seminars and attendance in respect of theory courses

Component of internal evaluation

Component	Weightage
a assignments	1
b seminars	1
c Test papers	1
d Attendance	2

External Evaluation:

The external evaluation is to be conducted with question papers set by external experts. The evaluation of answer scripts shall be done by examiners based on a well defined scheme of valuation.

Direct Grading System:

Direct grading system based on a 5 point scale is used to evaluate the performance (External and Internal) of students.

Letter Grade	Performance	Grade Points	Grade Range
A	Excellent	4	3.5 to 4.00
B	Very Good	3	2.5 to 3.49
C	Good	2	1.5 to 2.49
D	Average	1	0.50 to 1.49
E	Poor	0	0.00 to 0.49

Each course is evaluated by assigning a letter grade (A, B, C, D and E) to that course by the method of direct grading. The internal (weightage 1) and external (weightage 3) components of a course are separately graded and then combined to get the grade of the course after taking into account of their weightage. An aggregate of C grade is required in each course for a pass and also for awarding a degree. The detailed syllabi of the programme are appended.

The detailed syllabi of the programme are appended.

Structure of Courses for B.A. programmes

Common courses : 38 credits

Core courses including project & elective : 62 credits

Complementary courses : 16 credits

Open courses : 04 credits

Semester 1

Sl.No	Course code	Title of courses	Hours/week	No. of credits
1		Communicative skills in English	4	3
2		Critical reasoning, writing and presentation	5	3
3		Communicative skills in other languages	4	4
4	CP1.1	Core course - 1	6	4
5	PSY 1 CO1	Complementary - 1	3	2
6	CFCM1 CO1	Complementary - 2	3	2
Total			25	18

Semester 2

Sl.No	Course code	Title of courses	Hours/week	No. of credits
7		Reading literature in English	4	4
8		Readings on Indian Constitution secularism and sustainable environment	5	4
9		Translation and communication in other languages	4	4
10	CP2.1	Core course - 2	6	4
11	PSY 1 CO2	Complementary - 1	3	2
12	CFCM1 CO2	Complementary - 2	3	2

Total	25	20
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Semester 3

SI.N o	Course code	Title of courses	Hours/week	No. of credits
13		Literature and contemporary issues	5	4
14		Literature in other languages	5	4
15	CP3.1	Core course - 3	4	4
16	CP3.2	Core course - 4	5	4
17	PSY 1 CO3	Complementary - 1	3	2
18	CFCM1 CO3	Complementary - 2	3	2
Total			25	20

Semester 4

SI.N o	Course code	Title of courses	Hours/week	No. of credits
19		History philosophy of science	5	4
20		Culture and civilisation	5	4
21	CP4.1	Core course - 5	4	4
22	CP4.2	Core course -6	5	4
23	PSY 1 CO4	Complementary - 1	3	2
24	CFCM1 CO4	Complementary - 2	3	2
Total			25	20

Semester 5

SI.N o	Course code	Title of courses	Hours/week	No. of credits
25	CP5.1	Core course - 7	5	4
26	CP5.2	Core course -8	5	4

27	CP5.3	Core course - 9	5	4
28	CP5.4	Core course -10	5	4
29	CP5.OC1	Open course	3	4
30	CP6.5	Project	2	*
Total			25	20

Semester 6

SL.N o	Course code	Title of courses	Hours/week	No. of credits
31	CP6.1	Core course - 11	5	4
32	CP6.2	Core course -12	5	4
33	CP6.3	Core course - 13	5	4
34	CP6.4	Core course -14	5	4
35	CP6.EC1	Elective course	3	2
36	CP6.5	Project	2	4
Total			25	22

Total

Credits : 18 + 20 + 20 + 20 + 20 + 22 =120

Under Graduate Programme in Criminology and Police Science

I. Core Courses

Semester wise Details of Core Courses recommended by Board of Studies in Criminology (UG/PG) in its meeting on 11th July, 2016 are as follows.

Name of Semester	Course Code	Name of the Core Course
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I	Core course I	CP1.1	Fundamentals of Criminology
II	Core course II	CP2.1	Police, Prison and Judicial Administration
III	Core course III	CP3.1	Typology of Crime and Contemporary- Crime
III	Core course IV	CP3.2	Human Rights and Social legislations
IV	Core course V	CP4.1	Sociology of Crime
IV	Core course VI	CP4.2	Psychology of Crime and Criminal behavior
V	Core course VII	CP5.1	Bioscience and aetiology of crime
V	Core course VIII	CP5.2	Cyber Criminology and IT Acts
V	Core course IX	CP5.3	Criminal Law, Procedure and Evidence
V	Core course X	CP5.4	Practical Crime Investigation
VI	Core course XI	CP6.1	Juvenile and Gender Justice System
VI	Core course XII	CP6.2	Police Science and Crime Investigation
VI	Core course XIII	CP6.3	Correction and Personality development
VI	Core course XIV	CP6.4	Victimology and victim Justice
VI	Core course XV	CP6.5	Project

II (A) Open Courses (Vth Semester)

Students from other streams

Select any one course

Open Course I	CP5.OC1	Statistics in Criminology
Open Course II	CP5.OC1	Fundamentals of Forensic Psychology
Open Course III	CP5.OC1	Witness Psychology & Cross-Examination- in Courts

II (B) Elective Courses (VIth Semester)

Select any one course

Elective Course I	CP6.EC1	Applied Criminology
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Elective Course II	CP6.EC1	Offender Rehabilitation
Elective Course III	CP6.EC1	Security Management
Elective Course IV	CP6.EC1	Media and Crime

III Complementary Courses

Complementary Course Model I

PSY 1 CO1: Psychological Process : An Introduction.

PSY 2 CO2: Social Psychology : Ideas and Concepts

PSY 3 CO3: Developmental psychology : Stages and Process

PSY 4 CO4: Abnormal Psychology : Outline and Dynamics

Complementary Course Model II

CFCM1 CO1: Forensic Science I

CFCM2 CO2: Forensic Science II

CFCM3 CO3: Forensic Medicine I

CFCM4 CO4: Forensic Medicine II

CP1.1 Fundamentals of Criminology

Unit I: Introduction to Criminology

Nature of crime, Crime-Definitions; historical perspectives; nature, origin and scope, Criminology as a social science, Relations with other Social Sciences, Medicine & Law subjects, Nature of crime, Crime in modern society.

Unit II: Schools of Criminology

Pre-classical, Classical, Neo-Classical, Positive, Cartographic, Biological and Constitutional Schools.

Unit III: Sociological Theories

Differential Association theory, Group Conflict Theory, Containment Theory, Subculture Theory, Labeling Theory.

Unit IV: Psychological Theories of personality

Freud, Murray and Catell. Theories of learning - Pavlov, Skinner, Thorndike, Kohler and Bandura Theories of Motivation - Maslow, Hersberg, Atkinson and McClelland.

Unit V: Criminal Justice System

Structure of Criminal Justice in India. Role of legislature, police, judiciary and prison system in Criminal Justice; co-operation and co-ordination among the various sub systems of criminal justice system.

Recommended readings:

1. Edwin H. Sutherland and Donald R. Cressey (1974), *Principles of Criminology*, Lippincott, Philadelphia.
2. George Vold and Thomas J. Bernard, (1986), *Theoretical Criminology*, Oxford University Press, New York.
3. Harries, K., (1999) *Mapping Crime – principle and practice*, Crime Mapping Research Center, National Institute of Justice, U.S Department of Justice, Washington, DC
4. Harry Elmer Barnes and Negley K. Teeters, (1966), *New Horizons in Criminology*, Prentice Hall, New Delhi.
5. John E. Conklin, J.E., (1981), *Criminology*, Macmillan, London.
6. Paranjpe, N.V., (2002). *Criminology and Penology*, Central Law Publications, Allahabad.
7. Allen, Friday, Roebuck and Sagarin, (1981), *Crime and Punishment: An introduction to Criminology*. The Free press. New York.
8. Brenda S. Griffin and Charles T. Griffin, (1978), *Juvenile Delinquency in perspective*, Harper and Row, New York
9. Brendan Maguire & Polly F. Radosh, (1999), *Introduction to Criminology*, Wadsworth Publishing Company, Boston, U.S.A.

CP2.1 Police, Prison and Judicial administration

Unit I: Structure and administration of Indian Police

History of Indian Police – Policing in Ancient, Medieval and Modern India- Police Act of 1861- National Police Commission recommendations (NPC), 1979. Structure of State Police , Central

Police Organizations - CBI, CISF, CRPF, RPF etc. BPR&D, NCRB, Armed Police. Recruitment and training of constables, Sub-inspectors, Law and order Maintenance and detection of crimes.

Unit II: Duties and Powers of Police

Arrest, search, locking up and remand of suspected and accused persons. Conducting various types of raids – Prohibition, gambling, Narcotics– Procedure to be followed and precautions to be taken while suspected hide outs of Criminals/ Terrorists.

Unit III: Prison and Correctional Institutions

Historical development of Prison system in India. Prison Manual. Prison Act. Adult Institutions: Central, District and Sub Jails. Juvenile Institutions: Observation Homes, Special Homes. Women Institutions: Vigilance Home, Protective home. Open Prisons. Community based Corrections- Probation : Concept and Scope, Historical development of probation. Probation in India – Probation of offenders Act. Probation procedures: Pre-sentence Investigation report, Revocation of probation etc. Parole: Meaning and Scope. Parole - provisions and rules. After Care services.

Unit IV: Theories and nature of punishment

Theories of Punishment: Retributive theory, Preventive theory, deterrence theory, Reformation theory. Punishment – definition, nature and scope. Types of Punishment. Corporal and Capital Punishment.

Unit V: Judicial administration

Organization and functions of judiciary in India. Role of Nyaya Panchayat and Lok Adalat at Village level and district level and other Diversion procedures. Delay in Criminal Justice Administration.

Recommended readings:

1. Edelston, C.D. & Wicks, R.I. (1977), *An Introduction to Criminal Justice*, McGraw Hill.
2. Krishna Mohan Mathur, (1994), *Indian Police, Role and Challenges*, Gyan Publishing House, New Delhi.
3. Bhattacharya S.K., (1986). *Probation system in India*, Manas Publications, New Delhi.
4. Brodie, S.R., (1976). *Effectiveness of sentencing*, Home office, London.
5. Paranjepe, N.V., (2002). *Criminology and Penology*, Central Law Publications, Allahabad.

CP3.1 Typology of Crime and Contemporary Crimes

Unit I: Forms of Crime

Concept, Elements, Causes, Prevention and Control Atrocities against women, SCs & STs, Terrorism, Cyber Crimes, Environmental Crimes, Crime and Politics.

Unit II: Crime and Criminal Typology

Introduction to crimes against persons and crimes against property; Adult and Juvenile – Habitual offenders, Professional offenders, and violent offenders.

Unit III: Contemporary crimes

Concept of White Collar Crime - Socio-economic offences. Nature and types of socio-economic offences in India.

Unit IV: Crime and Youth

Juvenile Delinquency: Concept Causes Prevention and Control; Crime and Juvenile Delinquency in the developed and developing countries, Crime and Development.

Unit V: Crime Prevention

Crime and sense of security, Social control and crime prevention, Community and crime prevention, Contemporary crime prevention strategies

Recommended readings:

1. Ahmed Siddique, (1993), *Criminology, Problems and Perspectives, III Edn., Eastern Book House, Lucknow.*
2. Allen, Friday, Roebuck and Sagarin, (1981), *Crime and Punishment: An introduction to Criminology.* The Free press. New York.
3. Brendan Maguire & Polly F. Radosh, (1999), *Introduction to Criminology*, Wadsworth Publishing Company, Boston, U.S.A.
4. Reid Sue Titus, (2006). *Crime and Criminology.* Mc Graw Hill Publishers.
5. Edwin H. Sutherland and Donald R. Cressey (1974), *Principles of Criminology*, Lippincott, Philadelphia.
6. Jaishankar, K., (2009). *International Perspectives on Crime and Justice.* New Haven, UK: Cambridge Scholars Publishing.
7. Harry Elmer Barnes and Negley K. Teeters, (1966), *New Horizons in Criminology*, Prentice Hall, New Delhi.
8. John E. Conklin, J.E., (1981), *Criminology*, Macmillan, London.
9. Paranjepe, N.V., (2002). *Criminology and Penology*, Central Law Publications, Allahabad.
10. Williams, F.P. and McShane, M.D. (2004) *Criminological Theory.* Upper Saddle River, NJ: Prentice Hall.

CP3.2 Human Rights and Social legislations

Unit I: Introduction to Human Rights and Constitution

Concept of Human Rights - Historical development of human rights. Universal Declaration of Human rights, 1948. Different kinds of rights – National Human Rights Commission – State Human Rights Commission – Role of the Police unit of Human rights and social justice.

Constitution of India – Fundamental Rights (Articles 14, 19,20,21,22 and 32). Writs, Directive principles of state policy, Human Rights during emergencies.

Unit II: Police Approaches

Code of conduct for the police (National Police commission, 1977), impartial law enforcement practices, Application of force, Integrity and faithful performance of the duties.

Unit III: Police Violations, Causes and prevention

Custodial crimes and torture – Custodial death, rape, Use of third degree methods – Violation of the rights of marginalized groups: rights of women, children, prisoners and dalits: Important case laws related to police torture. Inferiority and permissiveness of police, compelling conditions, insincere exhortations, purposeful reluctance to use aids in investigation – corruption.

Unit IV: Social legislations

Legislation for the Amelioration of social problems- Prevention of Atrocities Act 1989, Protection of Civil Rights Act, 1976. Legislations relating to the welfare of women- Dowry prohibition Act 1961, Immoral Traffic (Prevention) Act–1956, Prevention of Domestic Violence Act, 2005. The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal), 2013. Legislations relating to the welfare of children- The Protection of Children from Sexual Offences Act (POCSO Act) 2012, Juvenile Justice (Care and Protection of Children) Act, 2015. Legislations relating to the welfare of weaker sections and other minor acts

Unit V: Local and Special Laws

KAAPA, 2007 etc. Objectives of Economic Legislations such as FERA, COFEPOSA, Prevention of Corruption Act, Prevention of Food and adulteration Act, Dowry Prohibition Act and Narcotic and Psychotropic Substances Act, Terrorist and Disruptive Act (TADA).

Recommended readings:

1. Human rights Today – A United Nations Priority, U.N. Publications. Department of Public information, United Nation, New York.
2. Human rights: A source book, (1996) NCERT publications, New Delhi.
3. Iyer V.R. Krishna (1986) Human Rights and the Law, Vedpal Law House, Indore.
4. Parmar, Lalit., (1998). Human Rights, Anmol Publications Pvt Ltd. New Delhi.
5. Sen S. (1998) Human Rights in Developing Society, APH Publishing Corporation, New Delhi.
6. Subramanian S. (1997) Human Rights: International Challenges, Manas Publications New Delhi.
7. Thilagaraj. R. (Ed) (2002) Human Rights and Criminal Justice Administration, APH Publishing Corporation, New Delhi.
8. Universal declaration of Human rights, 1948.
9. Krishnamurthy S, (1987), Impact of Social Legislations, on the Criminal Law in India, R R Publishers, Bangalore.

CP4.1 Sociology of Crime

Unit I: Social Structure Theory

Social Disorganization Theory -The Chicago School - Strain Theory - General Strain Theories - Anomie - Institutional Anomie.

Unit II: Crime and Social Structure

Subculture theories: Cohen's theory of the delinquent subculture - Miller's lower - Class gang delinquency - The subculture of violence theory of Wolfgang and Ferracuti - Cloward and Ohlin's theory of Differential Opportunity.

Unit III: Sociological Theories

Crime and Social Process –I: Socialization and Crime -Differential Association Theory - Differential Reinforcement Theory -Neutralization and Drift Theory. Crime and Social Process -II: Hirsch's Social Control or Social Bond Theory - Becker's Labeling Theory - Self-control and self-esteem as related to crime.

Unit IV: Disorganization and Social control

Family Disorganization, Individual Disorganization and Community Disorganization, Family, school and peer group; conventional lines of actions; crime as a rational choice; social learning and criminalization. Dowry, The Dowry (Prohibition Act) 1961. Prostitution, PITA. The Beggary Act, Vagrancy Act.

Unit V: Radical Criminologies

Crime and Power: Radical Criminology - Conflict Criminology - Marxist Criminology - Instrumental Marxism - Structural Criminology - Structural Marxism - Left Realism - Postmodern Theory - Peacemaking Criminology.

Recommended readings:

1. Edwin H. Sutherland and Donald R. Cressey (1974), *Principles of Criminology*, Lippincott, Philadelphia.
2. Elliot Mabel and Fransco E. Merril, (1961), *Social Disorganisation*, N. Harper and Row, New York.
3. Mahesh Chandra, (1979), *Socio-Economic Crimes*. N.M. Tripathi, Bomba.,
4. Ahmed Siddique, (1993), *Criminology, Problems and Perspectives*, III Edn., Eastern Book House, Lucknow.
5. Paranjepe, N.V., (2002). *Criminology and Penology*, Central Law Publications, Allahabad.

CP4.2 Psychology of Crime and Criminal behavior

Unit I: Crime as a human act and a psychological fact

The psychological concept and its difference from the concept of crime in law, morality, religion and society/ culture. Normal and abnormal behavior, criteria to decide the abnormality of human behavior: subjective scale, normative scale, statistical scale, socio-cultural scale, clinical scale, psychological elements of crime in law: Mens Rea, Intention, Malice aforethought, motive and harmful consequences of the act, absence of criminal intent, unsoundness of mind and crime, legal insanity and moral insanity.

Unit II: Mental Disorders and Crime

Psychosis and crime, psychoneurosis and crime, phobia and crime, manias and crime, borderline disorders and crime, psychopathic behavior and crime, psychosexual disorders and crime. Classification of disorders under DSM-IV.

Unit III: Psychological theories on Crime and Criminal Behavior

Psychological theories relating to the etiology of crime: Intelligence and crime, low grade intelligence and crime, personality theories of criminal behavior, Eysenck's theory, Type approaches and trait approaches, psychopathic personality and criminal behavior, psychiatry and crime, psycho analytic theories of criminal behavior, contributions of psychiatry un related to psycho analytic school, personality disorders and crime. Abnormal and criminal behavior of infants, children and adolescence. Psychological approaches for the correction, reformation, rehabilitation and reintegration of the incarcerated, Push-Pull-Ego Factor Approach.

Unit IV: Psychological explanations of:-

(1) Sex work, (2) alcoholism (3) drug addiction (4) organized defiance to authority , (5) terrorism and insurgency, (6) terror causing 'sms (7) corruption and nexus criminality, (8) *Mafia* and organized crimes, (9) suicide, (10) traffic offences and violations, (11) riots and public order crimes, (12) juvenile delinquency, (13) white collar crimes, (14) consensus crimes, (15) blue collar crimes, (16) political crimes, (17) economic crimes, (18) bureaucratic crimes

Unit V: Psychological explanations of:-

(1) Domestic violence (2) crimes against women, (3) communal riots and religious bigotry, (4) student-unrest (5) agrarian unrest, (6) labour disputes, (7) extremism, fundamentalism, fanaticism (8) dowry deaths, divorces, desertion (9) shark crimes and immunity, (10) hoarding of essential commodities and adulteration, (11) civil disobedience and disorder, (12) offences against weaker sections, (13) crimes by the immigrant workers, (14) laws relating to the crimes enumerated above .

Recommended readings:

1. Don C. Gibbons, Society, Crime and Criminal Careers; *An Introduction to Criminology*, Prentice Hall of India Ltd., New Delhi, 1978.
2. George B. Vold, *Theoretical Criminology*, Oxford University Press, New York, 1958.
3. E.H. Sutherland and D.R. Cressey, *Principles of Criminology*, Times of India Press, 1965.
4. Hans J. Eysenck, *Crime and Personality*, Granada Press, London, 1970.

CP5.1 Bioscience and aetiology of crime

Unit I: Genetics basis to Crime

Genes, the concept of heredity, Molecular genetics, Polymorphism, Epigenetic: role of environment in gene expression, Maternal Neglect and epigenetics, MAOA Gene and aggression

Unit II: Neuroscience and Criminality

Central nervous system, Peripheral nervous system, Brain anatomy, Synaptic transmission, Neurotransmitters, Prefrontal cortex, Neuroanatomy of murderous.

Unit III: Malnutrition and Criminality

How malnutrition lead to criminality, Omega-3 and Violence, Role of micronutrients and criminality-Role of Iron and zinc, Proactive and reactive aggression.

Unit IV: Heavy metals in Criminality

The role of lead, Cadmium, Manganese, Mercury and selenium.

Unit V: Experimental Criminology

The brain of murderers, the biosocial factors influencing criminality, Experimental criminology and Nutritional treatment in prison, The neuroethics of neurocriminology. The Lombroso Program.

Recommended readings:

1. Anthony Walsh and Kevin M. Beaver, *Biosocial Criminology: New Directions in Theory and Research*, Routledge/Taylor and Francis Group, 2009.
2. Adrian Raine, *The Anatomy of Violence: The Biological Roots of Crime*.
3. Anthony Walsh, *Biology and Criminology: The Biosocial Synthesis*, Routledge Publications.

CP5.2 Cyber Criminology and IT Acts

Unit I. Computer and Internet basics

Computer Hardware & Networks, Networks and Communications - Email - World Wide Web concepts - Website Creation – Concepts, E-Commerce - Social Media.

Unit II. Cyber Crime

Cyber crime: Definition – History and evolution Types and forms of cyber crimes –Machine oriented - Malicious Code - Computer Viruses, Worms, Trojans, Web Hacking Web Defacement, Denial of Service Attacks - Cyber warfare and Cyber Terrorism. Human oriented – Cyber Bullying, Cyber Stalking, Sexting, Revenge Porn, Child Pornography, and Phishing.

Unit III. Cyber Criminology

Cyber Criminology – Definition and evolution of the new science of cyber crimes – Cyber Forensics and Cyber Criminology – Differences. Theories in Cyber Criminology – Routine Activities Theory, Moral Disengagement Theory, De-individuation Theory, Space Transition Theory of cyber crimes.

Unit IV. Cyber Law

Case studies USA, UK and India. Prevention and detection of cyber crime – Cyber Policing. Current statutes in India: Penalties & Offences under the Information Technology Act, 2000 amended in 2008, offences under the Indian Penal Code, 1860, Issues relating to investigation and adjudication of cyber crimes in India – Cyber Tribunals - Digital evidence, and other legal provisions.

Unit V. Cyber Crime Investigation and Cyber Forensics

Best Practices for Cyber Crime Investigation: Initializing a Search and Seizure Operation Tracking & Tracing Emails, Recovery of Digital Evidence. Cryptography and Steganography - Cyber Forensics: Basic Forensic Principles, Forensic Imaging & Verification, Data Recovery and Analysis. Ethical Hacking.

Recommended readings:

1. Clough, John, 2010, *Principles of Cyber crime*, Cambridge.
2. David Wall, 2007, *Cybercrime, Polity*.
3. Derek Atkins *et al.*, (1997). *Internet Security: Professional Reference*, Techmedia, Daryaganj, New Delhi.
4. Dudley-Sponaule, Alfreda , James Braman and Giovanni Vincenti, 2011, *Investigating cyber law and cyber ethics, issues, impact, Information Science* Reference, ISBN: 1613501323
5. Glenny Misha 2011 *Dark market: cyber thieves, cyber cops and you*.
6. McQuade III, S. C. 2006. *Understanding and Managing Cybercrime*, Pearson.
7. IT Act 2000.

CP5.3 Criminal Law, Procedure and Evidence

Unit I: Introduction

Definitions – Vices, Sin, Tort and Crime – History of criminal law – Constitution, IPC and IEA - Nature and Scope- Doctrine of Actus Reus and Mens Rea.

Unit II: Legal provisions in Indian penal code

Crimes against property – Theft – Robbery – Dacoity. Crimes against persons: Culpable Homicide, Murder, Rape, Hurt, Crimes against public tranquillity: Riot, Unlawful assembly.

Unit III: CrPC (Criminal Procedure Code)

Organizational setup of courts in India. Complaint – inquiry – investigation – police report – public prosecutor – defence counsel - Arrest. Bail, Search. Seizure.

Unit IV: Court Procedures

Summons – Warrant – Information regarding cognizable and non-cognizable offence. Trials: Summary, Summon, and warrant trials.

Unit V: Indian Evidence Act

Indian Evidence Act – History in India. Evidence – Meaning, principles, and concept of relevancy and admissibility. Confessions and Dying Declaration. Presumption of fact and law, Burden of proof.

Recommended readings:

1. Guar K.D., (1995) *Criminal Law*, Oxford University Press
2. Kelkar, R.V., (1996) *Outlines of Criminal Procedure*
3. Pillai, A.P. S., (1996) *Criminal Law*, N.M. Tripathi.
4. Ratanlal and Dhirajlal (1995) *Code of Criminal Procedure*
5. Sarathy Veppa P. (1994) *Elements of Law of Evidence*, Eastern book Co., Lucknow.
6. Singh, A., (1995) *Law of Evidence*, Allahabad Law agency.

CP5.4 Practical Crime Investigation**Unit I: Criminal Procedure of registering information**

Recording FIR, Case Diary, Charge sheet, and Dying Declaration. Scene of Crime inspection. Sketching, Collection and preservation of evidence.

Unit I: Methods of Investigation

Methods of Investigation – Information, Interrogation and instrumentation. Modus Operandi, Police Dogs, Polygraph, Portrait building.

Unit-III: Procedure of Interrogation

Examination of Witnesses and Suspects. Techniques of Interrogation and interviewing. Confession, Inquests. Interviewing the Witness, Types of Witness, In case of Death – Medical report, Connecting the Crime with the Criminal, Recording of the Statement, Filing of Charge Sheet, Produce in the Court

Unit-IV: Investigation of offences

Investigation of Theft, house breaking, robbery, murder, rape, motor vehicle accidents, Forgery.

Unit-V: Public Participation in Police Investigation

Presentation of evidence and witness in the court of law – Victims Cooperation in investigation – Lapses of Police procedure during prosecution – Violation of human rights during police investigation.

Recommended readings:

1. Saini Kamal (2000) *Police Investigations: Procedure Dimensions, Law and Methods*, Deep and Deep Publications Pvt. Ltd. New Delhi.
2. Gross (2002) *Criminal Investigation: A practical Text book for Magistrates, Police Officers and Lawyers*, Universal Law Publishing Co. Pvt. Ltd. Delhi
3. Ressler, R.K. et al., (1992) *Crime Classification Manual: The standard system of investigating and classifying violence crimes*, Simon and Schuster, London.
4. Brownlie A.R. (Ed) (1984). *Crime Investigation: Art or Science*, Scottish Academic Press, Sweden.

CP6.1 Juvenile and Gender Justice System

Unit I: Juvenile Justice System

Definition, Nature and forms of juvenile delinquency, Beijing Rules-Riyadh Guidelines, UNCRC, National Policy for Children, History of Juvenile Legislations in India . Salient features of JJ Act 2000 and Amended Act 2006. CWCs and JJBs Institutions for Juveniles/children, The role of police with reference to children – SJPU, Child Welfare Officer, Role of NGOs in handling juveniles.

Unit II: Classification of Juveniles

Children in need of Care and Protection, Children in Conflict with Law. Youth Deviance-Recent Trends- Youth Alienation and Crimes.

Unit III: Intervention Strategies

Counseling, Restoration/Repatriation of Children, After-Care, Adoption, Foster Care & Sponsorship, Issues and Problems in Reintegration.

Unit IV: Women Rights, laws and social legislations

UDHR, CEDAW, Lahore declaration and Gender Justice –Protection of Women rights in Constitution of India – National Commission for Women – Maternity laws. Marriage–Restitution of Conjugal Rights – Judicial separation laws – Divorce – Maintenance – Succession & inheritance – Family courts . Prenatal diagnostic law, Medical Termination of Pregnancy Act – Prevention of Commission of Sati Act – Dowry Prohibition Act – Prevention of Immoral

Traffic Act – Prohibition of Indecent representation of women, Sexual Harassment at Workplace Act, 2013.

Unit V. Crimes against women

Types: Cruelty, Miscarriages, Rape, dowry deaths, domestic violence and gender and sexual harassment, Female infanticide and feticide, Trafficking in women, Stalking, Internet Abuse, and Cell phone abuse.

Suggested readings:

1. Seigal Larry, 2007, Criminology, Thompson Wadsworth.
2. Paranjape, N.V, 2009, Criminology and Penology, Central Law Publications.
3. The Juvenile Justice (Care and Protection of Children) Act 2000.
4. Reports by the international Conventions and UN Declaration.
5. Basu Durga Das, 2005 Introduction in Constitutions of India, 19th Edn. Wdhwa and company Law Publishers.
6. Maguire Mike, Morgan Rod and Reiner Robert, 2007. The Oxford Handbook of Criminology, Oxford University Press.
7. Mishra A.D., (1994) *Gender Perspectives: Participation, Empowerment and Development*, Radha Publications, New Delhi.
8. Myneni (2002). *Women and Law*, Asia Law House: Hyderabad.
9. Rani, Bela., (1997). *Marriage, family, Violence and Divorce*, Mangal Deep Publications, Jaipur.
10. Saxena, Shobha., (1995). *Crimes against Women and Protective Laws*, Deep and Deep Publications, New Delhi.

CP6.2 Police Science and Crime Investigation

Unit I: Police Science

F.I.R, Inquest report, Mahazar, Recording a witness statement, Physical evidence from the scene of crime: i.e, Labelling, Sealing of Exhibits, Forwarding.

Unit II: Crime Investigation

Protecting a scene of crime and photographing, sketching a scene of crime, Inspection of a Scene of Crime— **i.e.**, Spiral method, Strip method, Double Strip method and Wheel or Pie method. Markings on each item of evidence from the scene of crime for identification purpose.

Unit III: Handling and packing of physical evidence from the scene of crime

Ammunition and related evidences, Biological evidences, Tool marks etc., Glass particles, Trace evidences- Paint, paint chips, Explosive residues, Dust on clothes, Print evidences (Finger prints, foot prints), documents- charred documents.

Unit IV: Preparation of the Final Report to the court

Unit V: Role play

Examinations and cross examinations of: (1) Eye Witness, (2) Expert witness (3) Police witness.

Recommended readings:

1. Gross, Hans and Adolf Gustav, *Criminal Investigation*, Sweet and Maxwell, London, 1924.
2. Kirk, P.L., *Crime Investigation*, Interscience Publisher, New York, 1953
3. Charles O'hara, *Fundamentals of Criminal Investigation*, Charles C. Thomas, Springfield, 1956
4. Harry Soderman, *Modern Criminal Investigation*, American Elsevier, New York, 1965

5. William Deinstein, *Techniques for the Crime Investigator*, Springfield, Illinois, 1974
6. International Association of Chiefs of Police, *Criminal Investigation*, I.A.C.P., Washington, D.C. 1971
7. Scott, James, D., *Investigative Methods*, Reston Publishing Company, Inc., Reston, Virginia, 1978
8. Sharma B.R., *Forensic Science in Criminal Investigation and Trials*, Universal Law Publishing Co. Pvt. Ltd., Delhi, 2013.

CP6.3 Correction and Personality development

Unit I: Penology

Definition, Punishment, objectives of punishment in penal history and theories of punishment. Correction, reformation, rehabilitation and reintegration of the incarcerated. Prisons and personality development. Short term incarceration; Life sentence and Death penalty.

Unit II: History of Prisons

American Prison System, British Prison System, Russian Prison System; History and Development of prisons and prison system in India during Ancient times, British India, Democratic India and today. **Indian Prisons-** Prisons Act and Rules Prison classification, prison labour, prison education, prison discipline, prisons and human rights. Open prisons, women's prisons, institutions for juveniles, remand prisons and under trial prisoners, security prisoners, civil prisoners, prison reforms in India and in Kerala; Custodial torture in prisons, strategies for personality development of the residents in prison in India and in Kerala.

Unit III: U.N. Standard Minimum Rules for the Treatment of Prisoners

U.N Principles for Protection of all Persons under any form of Detention. Parole: history, eligibility suitability, advantages and demerits, Probation: history, Probation of Offenders Act, advantages and disadvantages. Half way homes and after case services, recidivism and measures to combat recidivism.

Unit IV: Prisons and Personality Development

Case study methods, group method, counseling in prisons, moral training and value education, special programmes for the personality development of hardened criminals, repeaters of crime, goondas, terrorists and life convicts. Personality Development of the Prison Staff- Training for custodial and correctional staff of the prisons, coordination between the police and the prison officials for the correction, reformation, rehabilitation and reintegration of the incarcerated. Prisons as a subsystem in justice administration, Coordination with the Bench and Bar (Judiciary) for justice administration

Unit V: Project study

On any subject relating to prison administration, correction, reformation, rehabilitation, reintegration and personality development of the incarcerated. [Dissertation of 100-120 pages]

Recommended readings:

1. Sukla Das, *Crime and Punishment in Ancient India*, Abhinav Publications, Delhi, 1977.
2. Harry Ekmer Barnes, *The Story of Punishment*, Patteson Smith, Mintelair, N.J. 1972.
3. Sue Titus Reid, *Crime and Criminology*, The Dryden Press, Hinsdale, 1976
4. Harry Elmer Barnes and Negley K. Teeters, *New Horizons in Criminology*, Prentice-Hall of India Pvt. Ltd., Delhi, 1966
5. E.H. Sutherland and D.R. Cressey, *Principles of Criminology*, Times of India Press, 1965.
6. Stephen Schafer, *Theories in Criminology*, Random House, New York, 1969.
7. Vidhyabhushan, *Prison Administration in India*, S. Chand and Co., Delhi, 1970.
8. Paul Tappen, *Crime, Justice and Correction*, McGraw Hill, New York, 1960.
9. Donald Clemmer, *The Prison Community*, Holt, Rinehart and Winston, New York, 1958.
10. Mabel A. Elliot, *Crime and Modern Society*, Harper, New York, 1952.
11. W.C. Reckless, *The Crime Problem*, Vakils, Fetter and Simons Pvt. Ltd., Bombay, 1967.

CP6.4 Victimology and Victim Justice

Unit I: Victim and Criminal Justice System

Concept, Nature & Related Issues, Historical Development of Victimology, Key Concepts in Victimology: Victim Precipitation, Victimization Proneness, Victim Responsiveness, Victim Psychology, Psycho-dynamics of Victimization, Primary Victimization, Secondary Victimization, Tertiary Victimization, Victim Vulnerability, Victimless Crimes.

Unit II: National and international concern for victims of crime

The role of the United Nations in establishing victim rights. The emotional and practical needs of crime victims. Magna Carta for victims- Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power, 1985. UN Congresses- UN Congresses on Treatment of offenders – Geneva Convention on Treatment of offenders.

Unit III: Victimization

Patterns of Victimization - Victims of Crime, Victims of Abuse of Power, Women Victims – Dowry, Battered women, Rape and other kind of sexual harassment, Child Victims, Victims of group violence.

Unit IV: Victim Compensation

Restitution, Ex-Gratia Grant, Compensation by Insurance Companies, Compensation for Victims of Crime and abuse of power, Victim Compensation- An International Perspective.

Unit V- Victim Assistance

Role of citizens and voluntary organizations, Preventing Victimization, Assisting victims during crime investigation and trial, Legal aid to victims of crime – Counseling, guidance and rehabilitation of special kinds of victims of crime and child abuse, National Organization for Victim Assistance (NOVA), USA & Victim Witness Assistance Programs (V W A), Introduction to Restorative Justice System.

Recommended readings:

1. Chockalingam, K. 1985, *Readings in Victimology*, Raviraj Publications, Chennai.
2. Fattah, E.A. 1991. *Understanding Criminal Victimization*, Scarborough, Ont.: Prentice Hall Canada.
3. Gottfredson, M. R. 1984. *Victims Of Crime: The Dimensions Of Risk*, Home Office Research And Planning Unit, Report No. 81, London: Hmso.
4. Gupta M.C., Chockalingam K., and Jayatilak Guha Roy 2001, *Child Victims of Crime-Problems and Perspectives*. Gyan Publishing House, New Delhi.
5. Karmen, A. 1990. *Crime Victims: An Introduction to Victimology*, (2nd Edition). Monterey, Ca: Brooks/Cole.
6. Snyman, R. (1997). Victim's Rights. In F. Nel & J. Bezuidenhout (Eds.), *Policing and Human Rights* (pp.155-168). Kenwyn: Juta.
7. United Nations 1985. *Declaration of Basic Principles of Justice for Victims Of Crime And Abuse Of Power*, New York: United Nations.

OPEN COURSES

CP5.OC1 Statistics in Criminology

Unit I: Introduction to Statistics

Nature and definition of statistics, Types of statistics, Importance of statistics in Criminological research, Limitation & Misuse of statistics.

Unit II: Classification, Tabulation and Graphical Presentation

Classification and presentation of Data, Tabulation of data-Frequency distribution, Graphical representation –need and advantages, Simple and compound graphs.

Unit III: Measures of Central Tendency and Variability

Need and importance of various measures of central tendency; Calculation of mean, median and mode (grouped and ungrouped), Need and importance of various measures of variability- Calculation of standard deviation and quartile deviation (grouped and ungrouped).

Unit IV: Correlation and Regression

Concept of correlation and regression and their applicability, Pearson's product moment and Spearman's rank correlation, Regression equation by Least square method.

Unit V: Inferential Statistics

t tests-paired and unpaired, ANOVA-One way, Chi-square test.

Recommended readings:

1. B L Agarwal, 2006. *Basic statistics*: New Delhi New Age publishing.
2. Ronet D. Bachman & Raymond Paternoster, 2016, *Statistics for Criminology and Criminal Justice*, Fourth Edition. SAGE Publications.
3. Jeffery T. Walker, *Statistics in criminology and criminal justice*.
4. Hays, William L., (1973) *Statistics for Social Sciences*, New York: Holt, Rinehart and Winston.
5. Black, Hubert M., (1972) *Social Statistics*, New York: McGraw-Hill Book Co.

CP5.OC1 Fundamentals of Forensic Psychology

Unit I: Psychology of Crime

Crime and Criminology- Introduction to Criminology- A brief history of Criminology- Crime and the Criminal law- Ethical issues in Criminology- Careers in Criminology. Nature and extent of Crime.

Definition of Crime- Popular images of Crime and Criminals- Primary and secondary sources of crime data- Crime trends- Myths and facts about Crime. Theories of Crime Causation, Choice theories- Trait theories- Social structure theories- Social process theories- Social conflict theories- Developmental theories.

Unit II: Criminal Behavior

Psychology of violence: Human Aggression and Violence- Development of Delinquent and Criminal behaviour: Juvenile Delinquency- Criminal Psychopathy- Crime and mental disorders- Crime and drug abuse- Psychology of Sexual assault- Psychology of terrorism. Crimes and Criminal offenders (Crime Typologies). Violent interpersonal crimes- Conventional property crime- Public order crimes- White-collar and organized crimes- Cybercrimes

Unit III: Fundamentals of Forensic Psychology

Forensic Psychology: An Overview- Brief history of Forensic Psychology- Forensic Psychology today- Forensic Psychology, Forensic Psychiatry & Forensic Social work- Forensic Psychology as a speciality- Research and Practice Careers in Forensic Psychology.

Police and Investigative Psychology:

Policing society- Forensic Assessment in Police and Public safety psychology- Psychological Intervention responsibilities- Operational responsibilities- Profiling- Police Interviewing and Interrogation- Detection of Deception- Forensic Hypnosis- Eyewitness evidence.

Unit IV: Legal Psychology

Consulting and Testifying: Court structure- The Judicial Process- Assessment of risk- Trial and Litigation consultation- Expert Testimony- Surviving the witness stand

Consulting with Criminal Courts: Competency to stand trial- Insanity- Other defenses pertaining to criminal conduct- Sentencing evaluations
Family Law and Other forms of Civil Litigation: Child custody evaluations- Forensic Psychology and Civil Litigation- Civil capacities- Involuntary civil commitment- Sexual and gender harassment

Unit V: Victimology and Victim Services

Multiculturalism and victimization- Legal rights of Victims- Crime victimization data- Psychological effects of criminal victimization- Homicide, Sexual assault, Property crime and Internet Victimization- Child Sexual Abuse- - Child abductions- Repressed and recovered memories- Roles of Forensic psychologist in child abuse cases- Intimate partner and family violence Elder abuse and neglect

Correctional Psychology:

Institutional corrections- Overview of correctional facilities- Legal rights of inmates- Roles of correctional psychologists- Psychological assessment in corrections- treatment and rehabilitation in correctional facilities- Community based corrections- A brief history of Juvenile Court- Juvenile Assessment: An Overview- Psychological treatment in juvenile facilities- Approaches to rehabilitation.

Recommended readings:

- 1.) Siegel, L.J., (2007). *Criminology: Theories, Patterns & Typologies*. (9th ed). Thomson Wadsworth: USA
- 2.) Bartol & Bartol. (2004). *Introduction to forensic Psychology*. Sage publications: USA
- 3.) Burke, R.H., (2014). *An Introduction to Criminological Theory*. (4th ed). CPI Group Ltd: UK
- 4.) Maguire, B., & Radosh, P.F., (1999). *Introduction to Criminology*. Wadsworth Publishing Company: USA
- 5.) Howitt, D., (2002). *Forensic and Criminal Psychology*. Pearson Education: USA

CP5.OC1 Witness Psychology & Cross-Examination in Courts

Unit I: Definition, Types and Nature

Informants, Eye-witness, Hearsay Witness, Expert witnesses: Definition, Nature, Differences and Evidentiary Value. **Structure of Human mind and witness testimony:-**

- i) Conscious, Sub-conscious and Unconscious, Ego, Superego and Id and their influence and impact on witness statements and testimony.
- ii) Parent-ego, Adult-ego, Child-ego, Transaction Analysis and Interaction with witnesses during interviewing, examination and cross examination.
- iii) Push-Pull-Ego Factor approach in witness interviewing, examination and cross examination; Intellectual Ego, Moral and Ethical Ego, Spiritual Ego and Human instincts for transactional assessment and reciprocity during interviewer - interviewee interactions
- iv) Personality of witnesses, Memory, Drives, Motivation, Motive, Complexes and Interests in witness testimony.

Unit II: Interviewing witness

Getting the set for interviewing, Preparation, Types of witnesses, interviewing skills, Interviewer-Interviewee rapport and relations. **Defense/ Escape Mechanisms in the interviewer/interviewee-** Understanding the defense mechanisms and their interaction, Repertoire of skills for effective police professional witness interviewing, Listening and understanding, Attending and showing receptiveness: the mechanics. **Attending witnesses physically-** Presence, body posture, openness, leaning forward, facial expressions, permission to talk, disciplining during the interview, hearing and appreciating vocal messages, non-verbal communication signals, observing body languages, hindrances, recording the witness statement. **Witness interviewing-** The law and procedure, where and how of interviewing collection of the witness background, psychological factors affecting the interview, vision and physical conditions of the witness, factors affecting the witness at the time of witnessing the incident etc. **Code of ethics for police interviewers.**

Unit III: Witnesses in law and witnesses in practice

Malpractices in witness interviewing, Perverted concepts about police role in witness interviewing, Undue influence on witnesses, place, time, dress, planning and scientific preparation for professional police interviewing. **Questioning mechanisms-** 'What' questions, 'why' questions, 'whose' questions, 'who' questions, 'when' questions, 'which' questions, 'How' questions and the objectives of such questions with correct non-verbal signals. **Mechanics of interviewing-** Mode of transport, introducing the matter, disturbance at the place of interviewing, types of questions, leading questions, free calls and free recalls, management of conversation via cognitive approaches

etc.

Unit IV: Managing conversation

Focusing and following: How? Effective conversation, reflective feelings, reflective contents, communication with witness: mechanics. **Focusing-** Focusing on feelings, thoughts and actions, focusing on witnesses, focusing on witnesses and their thinking: How? Interviewer-interviewee relationship, adjustments during interviewing. **Understanding, reflecting and communicating-** Facilitative environment, Continuous message, No discouraging message, Discouraging non-verbal messages, Person orientation, Task orientation, Responsive understanding, Mirroring and parroting, Emotional companionship, Reflection and focusing on witness feelings, Identification and expression of feelings, Feeling words, Reflective responding, Issue centered interviews. **Facilitating initial structuring-** Encouraging talks, focusing one issue, helpful questioning, self disclosures, summarizing; Methods to make the defense mechanisms inactive or inoperative, Enlisting full and willing cooperation of witnesses, empathetic, responding, pinpointing of witnesses feelings, focused information gathering. **Essential interviewing-** Laws and case laws on witness interviewing (Most important and recent ones).

Unit V: Physiological aspects

Sensation, vision, hearing smell, taste, skin senses, preparation of internal stimulation, voluntary muscles, involuntary muscles, duct glands and ductless glands and their impact on witness behavior and testimony.

Memory, attention, perception, proximity, stimulus, similarity, continuity, closure colour, depth perception. Hearing illusions, visual illusions, colour blindness, colour weakness, short sight, hyperopia (far sightedness) and other perceptual defects, mental set, surroundings, interests and values, social and environmental pressures and their impact on witness-interviewing and testimony.

Cross examination of Police Witnesses in courts. Rapid fire questions, Condescending counsel, Friendly counsel, Badgering and belligerent counsel, Restrictive questions, Ridiculing questions, Insisting questions, Leading questions, Assessment questions, Repetitious questions, Staring posture and similar tactics and strategies and the purpose behind such questions/actions during cross examination. How to manage such situations?

Recommended readings:

1.
Bringham, M.V. and B.V. Moore, *How to Interview?*, Harp & Bros, New York, 1941
2.
Gendlin, E.T., *Focussing*, Bantam Books, New York, 1981
3.
Inbaw, E.E., *Lie Detection and Criminal Investigation*, Willi-ams and Wilkins, Baltimore, 1942.
4.
Mulbar, H., *Interrogation*, Charles C. Thomas, Springfield, 1953.
5.
Okun, B.F., *Eective Helping, Interviewing and Counselling Techniques*, Duxbury Press,

Massachusetts, 1976.

6.

Skinner, B.F., *Verbal Behaviour*, Appletion, Century- Crofts, New York, 1957.

ELECTIVE COURSES

Elective Course I CP6.EC1 Applied Criminology

Unit I: Introduction

Frame work and practice, approaches and applications, impact of criminology on practice.

Unit II: Criminology and Policy

Criminology in Social policy, Public Policy/Legal Policy, criminal justice system.

Unit III: Application of criminology

In Police, Correctional Institutions, Public/Private sector. Modern Trends in application, Criminal Profiling.

Unit IV: Riot management and crowd control

Crowds and unlawful assemblies - Procedures to be followed while dispersing violent crowds- Problems in mobilization of force and command and control. Broad principles of deployment of Forces.

Unit V: Preventive actions and peace

Preventive action for maintenance of law and order. Collection of intelligence from various sources. Maintaining security, peace during elections, core festivals and fairs.

Recommended readings:

1. Brain Stout, Joe Yates, Brian Williams (2008). *Applied Criminology*, Sage Publishing, Canada.
2. Hugh D. Barlow and Scott H. Decker (2010). *Criminology and public policy: putting theory to work*, Temple University Press, Pennsylvania.

3. Kocsis, Richard N. (2007). *Criminal Profiling: International Theory, Research, and Practice*, Springer.
4. Laurence J. Alison (2005). *The Forensic Psychologist's Casebook: Psychological profiling and criminal investigation*, Willan publishing.
5. A.K.Ghosh - Notes on crowd control.
6. Mihir kumaar Mukherji - Unlawful assembly and rioting.
7. V.V.Singh- Communal violence.

Elective Course II CP6.EC1 Offender Rehabilitation

Unit I: Introduction

Definition and concept of rehabilitation and habituation, Nature & scope of rehabilitation, Rehabilitation with special reference to criminal behavior.

Unit II: Rehabilitation

Types of rehabilitation- Physical, Psychological, Social, Vocational. Techniques & skills in rehabilitation. Rehabilitating victims of crime.

Unit III: Process of Rehabilitation

Principal and techniques of rehabilitation, Typical programmes of rehabilitation at primary secondary & tertiary levels. Use of psychotherapy, Behavior therapy, Cognitive Therapy, Art therapy in rehabilitation, Modern Trends in Therapy, Advantages and disadvantages of psychotherapy.

Unit IV: Treatment in Practice

The Treatment of Sex Offenders, The Treatment of Mentally Disordered Offenders, The, Treatment of Drug Misuse, Treatment and Social Policy.

Unit V: Different Models of Offender rehabilitation

RNR Model, Good Living Model etc.,

Recommended readings:

1. Gwen Robinson and Iain Crow, 2000, *Offender Rehabilitation: Theory, Research and Practice*, Sage Publications.
2. Battachariya, S.K. 1986, Probation System in India, Manas Publications, New Delhi.

3. Brodie, S.R., 1976, Effectiveness of Sentencing, Home Office, London.
4. Chockalingam, K., 1993, Issues in Probation in India, Madras University Publications, Madras. Christopher J. Emmins, 1985, A Practical approach to sentencing, Financial Training Publications Ltd., London.
5. Devasia, V.D., & Leelamma Devasis, 1992, Criminology and Penology, 1980, Allahabad Agency, Allahabad.
6. Goswami, B.K. 1980, Critical Study of Criminology and Penology, 1980, Allahabad Agency, Allahabad.
7. Ghosh, S., 1992, Open Prisons and the Inmate, Mittal Publications, New Delhi.

Elective Course III CP6.EC1 Security Management

Unit I: Introduction to Security

Security and need for security, Jobs and roles in the security industry, Main types of security threats, Designing a security plan.

Unit II: Security Technology & Protection of Premises

Physical security measures, Closed-circuit television, Intruder alarm systems, Preventing and dealing with burglary and theft, Essential precautions against fire, Protection against bombs and explosive devices, IT Security.

Unit III: Security in Public Places

Shops supermarket (Mall) and shopping precincts, Hospitals & Hotels, Managing people and public access, Museums, airports, supermarkets, stores, apprehending, store detectives, patting people down. Search legalities, Inventory control, pilfering. Shrink defalcation

Unit IV: Dealing with Emergencies

Common types of emergency, Emergency procedures, The role of security, Terrorism, Chemical, biological and radiological attacks, Hoax calls, letter bombs and other explosive devices, Crime and incident scene preservation.

Unit V: Mobile Staffing and VIP Protection

Protecting staff during travel, Defensive driving, Business travel, Reducing the risk of kidnap and ransom Close protection.

Recommended readings:

1. Sinha R K Industrial Security Management Vikas Publishing, New Delhi.
2. Brian R. Johnson-Principles of Security Management ISBN-13: 978-0130284389 ISBN-10: 0130284386.
3. Charles A. Sennewald Effective Security Management, Fifth Edition 5th Edition; New Century Press.
4. Harvey Burstein - Industrial Security Management; Praeger, 1986 ISBN 027592002X, 9780275920029.
5. Charles A. Sennewald (2000) -Shoplifters vs. Retailers The Rights of Both; New Century Press; 1st edition .
6. Sinha R K Electronic Surveillance and Fire Safety Vikas Publishing, New Delhi.
7. Sinha R K Hotel Security and Executive Protection Vikas Publishing, New Delhi.

Elective course IV CP6.EC1 Media and Crime**Unit I: Introduction**

Introduction to the media, Media/crime links; social constructionism (MADD); politics of crime—Super predators; Media as a *cause* of crime, Media & Crime in the 21st Century.

Unit II: News media

Media/crime links- Moral panicking & sensitization, social constructionism, politics of crime—Superpredators, Role of news media in increasing/decreasing crime.

Unit III: TV media

Effects of Crime serials on behavior, Crime and justice in entertainment television and Infotainment, Role of TV in increasing/decreasing crime.

Unit IV: New media (Mobile, internet)

New media and cyber crimes, Social media and crimes, Role of new media in increasing/decreasing crime.

Unit V: Media and crime prevention

Media and the court system, Media and Corrections, media as crime prevention.

Recommended readings:

1. Surette, R. (2011). *Media, Crime, and Criminal Justice*. 4th Edition. Belmont, CA: Wadsworth.

2. Adler, Muller & Laufer-Criminology--4ed.
3. Newburn, Tim- Criminology
4. Taylor, Rae (Online Pub 2014) Mass Media and Crime- The Encyclopedia of Theoretical Criminology.
5. Jewks, Yvonne (2015) Media and Crime- Key Approaches to Criminology; Sage Publications.

COMPLEMENTARY COURSES

Complementary Course Model I

PSY 1 C01: Psychological Process: An Introduction

Unit I: Introducing psychology

What is psychology: A working definition. Brief history of modern scientific psychology: Structuralism, Functionalism, Behaviorism. Methods in Psychology

Unit II: Consciousness

Consciousness States of mind: Nature of consciousness, Changes in consciousness: dream and sleep. Stages of sleep. Altered states: Hypnosis- facts and myths, meditation, drug induced states. Attention and Perception Attention processes: Factors affecting attention-subjective and objective. Span of attention, Division of attention and Distraction of attention. Perceptual organization: Figure-ground perception. Perceptual constancies. Colour perception. Theories of colour perception. Perceptual styles. Subliminal perception. Perceptual defense. Space perception. Extrasensory perception.

Unit III: Learning and Memory

Learning Definition. Trial and error learning, Classical conditioning, Operant conditioning: Reinforcement, punishment, shaping, schedules of reinforcement. Learning curve, Verbal learning. Social and cognitive learning: Observational learning. Latent learning, cognitive map,

Insight learning. Retention and Retrieval Encoding, storage and retrieval processes. Sensory, short term and long term memories. Chunking. Semantic, episodic and procedural memory. Measuring memory: recall, recognition, relearning, Forgetting: Theories: Fading, Interference, Distortion, Repression, amnesia. Strategies for remembering: rehearsal, elaboration, organization.

Unit IV: Emotion, Motivation and Personality

Concept of Emotion. Physiological correlates of emotion. Theories of emotion: James-Lange theory, Cannon-Bard theory, Schechter-Singer theory, Appraisal theory, Evolutionary theory, Opponent process theory. Assessment of emotion . Concept of motives. Instinct, drive, Primary and secondary motives. Hunger and eating, sexual motivation, Levels of arousal, learned motives: affiliation, achievement and power motive, Hierarchy of motives. Concept of personality. Determinants of personality. Theories: Psychodynamic, Dispositional, Learning and Phenomenological. Big five factor theory. Assessment of Personality, Uses of Personality tests.

Unit V: Cognitive processes

Concept of intelligence. Mental age, Ratio of IQ, Theories of intelligence, assessment and classification. Images and Concepts. Reasoning: deductive and inductive. Problem solving-Steps. Barriers to effective problem solving. Strategies of problem solving: algorithms, heuristics, Cognitive style and problem solving. Creativity. Convergent and divergent thinking. Stages in creativity. Decision making, Psycholinguistics.

Recommended readings:

1. Baron, R. A. (2004). *Psychology*, 5th ed. New Delhi: Pearson Education.
2. Bootzin, R., & Bower, G. H. (1991). *Psychology today-An Introduction*, 7th ed. New York: McGraw Hill Inc.,
3. Mishra, B. K. (2008). *Psychology: The study of human behaviour*. New Delhi: Prentice Hall of India.
4. Weiten, W. (2002). *Psychology: Themes and variations*, 5th ed. New York: Brooks/Cole Publishing Co.
5. Lefrancois, G.R. (2000). *Theories of human learning*, 4th ed. London: Wadsworth.
6. Friedman, H. S., and Schustack, M.W. (2003). *Personality: Classic theories and modern research*, 2nd Edition. Delhi: Pearson Education.

PSY 2 C01: Social Psychology: Ideas and Concepts

Unit I: Introduction

Definition, Social psychology: Origin and development. Methods of social psychology

Unit II: Communication and Social Perception

Non-verbal communication: Facial expressions, gazes, stares. Body language, Concept of social perception. Cognitive factors. Attribution. Theories: Kelley's theory. Attribution errors. Applications in understanding depression and prejudice. Impression formation. Impression management- tactics Social Cognition concept - Schemas. Self fulfilling prophecy. Heuristics. Priming. Automatic processing. Sources of error in social cognition: Automatic vigilance, optimistic bias, counterfactual thinking, magical thinking, illusory correlation, regression fallacy. Affect in social perception.

Unit III: Attitudes Definition, nature, components, functions

Attitude formation. Attitude and behaviour Persuasion. Resistance to persuasion. Cognitive dissonance. Hypocrisy. Prejudice Nature: Prejudice and discrimination. Discrimination- Explicit and implicit. Stereotypes. Role of media in maintaining stereotypes and prejudice. Origins of prejudice. Role of prejudice in communal issues. Techniques of countering the effects of prejudice. .

Unit IV: Interpersonal Attraction & Relationships

Beginning of attraction. Groups & Social Influence Groups: Nature and functions. Social facilitation, social loafing. Mob, Crowd and Mass society. Leadership: theories of leadership, types of Leaderships Compliance: underlying principles and tactics. Prosocial Behaviour & Aggression Responding to emergency. Steps. Classic studies and experiments. The helpers and those who receive help. Altruistic personality, volunteering. Explaining prosocial behaviour: , empathic -joy hypothesis, genetic determinism Determinants of aggression (social, personal, situational). Media violence and its effects. Child abuse. Prevention and control of aggression

Unit V: Environmental and Social issues

The urban environment and social behaviour. The concept of personal space. Nature and effects of crowding. Environmental stress Psychological aspects in the legal system. Eyewitness testimony: problems and solutions. Influences on verdicts. Psychology applied to social development Psychological aspects in poverty: Causes and consequences. Role of psychology in national development: Issues of development, psychological solutions.

Recommended readings:

1. Baron, R.A., and Byrne, D. (2002). *Social Psychology*, 10th ed. New Delhi: Pearson Education.
2. Baron, R.A., and Byrne, D. (1997). *Social Psychology*, 7th ed. New Delhi: Pearson Education.
3. Myers, D.G. (1990). *Social Psychology*, 3rd ed. New York: McGraw Hill Inc.

PSY 3 C03: Developmental psychology: Stages and Process

Unit I: Introduction to Life Span Development and Theories

Importance of life span development, Historical perspective. Characteristics of life span perspective. Nature of development. Cross sectional and longitudinal approaches in developmental study. Theories by Freud- Erickson-Piaget-Vygotsky. Information processing Behavioral/Social cognitive- eclectic orientation.

Unit II: Prenatal Development

Germinal period- embryonic period- Fetal period. Prenatal diagnostic tests. Effects of teratogens. Neonatal health and responsiveness. Consequences of low birth weight. Physical Development and Aging: Cephalocaudal and proximodistal pattern. Newborn- reflexes- perception (vision, hearing, other senses, inter modal perception) Height and weight in infancy and childhood. Gross and fine motor skills. Handedness. Physical development in puberty. Changes in early, middle and late adulthood. Theories of aging.

Unit III: Cognitive Development

Stages of cognitive development- sensory motor stage- object permanence- pre operational stage- intuitive thought- concrete operations- semantics- pragmatics. How language develops- babbling- two word utterance- advances in early, middle and late childhood- metalinguistic awareness.

Unit IV: Socio- Emotional Development

Functional view of emotion- regulation of emotion- development of emotion through infancy, childhood, adolescence and adulthood. Describing and classifying temperament- Chess and Thomas, Kagan, Rothbart and Bates. Attachment and love- Theories of attachment- care giving

and attachment. Moral development- Piaget's and Kohlberg's theory- stages- social conventional reasoning- basic processes- resistance to temptation- self control- empathy- role of emotion- moral personality- moral identity- moral characters-exemplars.

Unit V: Relationships and vocational adjustment

Marital and nonmarital, parenthood, Divorce, Kinship in adulthood, middle and old age. Facing Death and Loss. Vocational adjustment in adult and middle Age. Adjustment to retirement in late adulthood.

Recommended readings:

1. John W Santrock,(2010) *A Topical approach to Life span Development* 3rd ed
2. Berk', *Child Psychology*
3. Papalia and Olds,(2004) *Developmental Psychology*. New Delhi: Tata McGraw Hill Publishing Company Limited.

PSY 4 C04: Abnormal Psychology: Outline and Dynamics

Unit I: Introduction to abnormal psychology

The normal and abnormal – The concept of normality and abnormality, Different criteria, Concept of healthy personality, Historical view of abnormal behavior. Causal factors and psychopathology: Biological factors: Neurotransmitter, Hormonal imbalance- Genetic defect- Constitutional liabilities- Brain dysfunction, Physical deprivation- Psychological factor- Schemas and self schemas- Early deprivation of trauma- Inadequate parenting- Maladaptive peer-relationships- Socio-cultural factors. Stress disorders: Reaction to common life stressors- Reaction to severe life stressors- Reaction to catastrophic events- The trauma of rape- Treatment and prevention of stress disorders.

Unit II: Anxiety disorders

Phobic disorders- Panic disorders and agoraphobic, Generalized anxiety disorders- Obsessive-compulsive disorders- Causal factors, Biological, Physiological, and Socio-cultural factors- Treatment and outcomes. Somatoform and dissociative disorders: Somatization disorder, Hypochondriasis- Pain disorder- Conversion disorder- dissociative amnesia and fugue dissociative identity disorder- Depersonalization disorder- Causal factors- Biological, Physiological, and Socio-cultural factors.- Treatment. To develop in them awareness about different types of personality disorders and substance abuse

Unit III: Personality disorders

Clinical features of personality disorders, Types of personality disorders- Paranoid, schizoid, schizotypal, Histrionic, Narcissistic, Antisocial- Borderline- Avoidant, Dependent, Obsessive-compulsive, Passive aggressive personality disorders- Causal factors in personality disorders- Biological, Physiological, and Socio-cultural- Sexual development and orientation disturbances.

Unit IV: Externalizing disorders

Substance abuse, Alcohol dependence, sexual deviance, criminals, etc., Clinical picture- Causal factors- Treatment and outcome.

Unit V: Major disorders

Affective disorders- Unipolar and bipolar disorders- Cyclothemia- Schizoaffective disorders- Causal factors in mood disorders- Biological, Physiological, and Socio-cultural factors- Treatment and outcomes. The schizophrenia and delusion disorder. The clinical picture in schizophrenia- Subtypes of schizophrenia- Paranoid type Catatonic type- Disorganized type- Residual type and undifferentiated type- Causal factors in schizophrenia- Biological, Physiological, and Socio-cultural factors- The clinical picture in delusional disorder- Causal factors in delusional disorder- Treatment and outcomes.

Recommended readings:

1. Carson, R.C., Butcher, J.N., Mineka, S. (1996). *Abnormal Psychology and Modern Life*. (10th ed). New York: Harper Collins Inc.
2. Shadock, B.J. & Sadock, V.N. (2004) *Synopsis of Textbook of Psychiatry*. London.
3. William & Wilkins. Sarason, I.G., & Sarason, B.R. (2005) *Abnormal Psychology. The problem of maladaptive behavior*. India.

Complementary Course Model II

CFCM1 C01: Forensic Science I

Unit I: Introduction

An introduction to Forensic Science, A brief history of the development of Forensic science, Basic principles of forensic science, Physical evidence and its importance in investigation.

Unit II: Forensic Physics

Soil as physical evidence, Importance of soil and its comparison, Importance of tool marks, , Serial number restoration , Use of glass in investigation, Paint comparison, Tyre marks and skid marks in Hit and run investigation, Voice analysis and Forensic speaker identification.

Module III: Forensic Ballistics

Definition of forensic ballistics, Classification of firearms- Rifled and smooth bored weapons, Bore and caliber, Identification of shooter, Collection of gunshot residue, Identification of fired weapon, Determination of range.

Unit IV: Explosives and Narcotics

Explosives - definition and classification, High explosives and low explosives, Difference between burning, deflagration and detonation, Improvised Explosive Devices (IED)- throw down bomb letter bomb, Parcel bomb, steel bomb, pipe bomb etc.

Narcotic drugs- Natural narcotics -ganja and its derivatives, Opium and its derivatives
Cocaine, hashish, opium, morphine, heroin, Synthetic narcotics- LSD, amphetamine, heroin

Unit V: Documents and Print Evidence

Forensic Documents- Identification and comparison of handwriting, Signature, common frauds in documents, Collection of specimen writings and signatures, Secret writings, Lifting and forwarding of charred documents.

Fingerprints and foot prints-

Basic principles, Classification, Scene of crime prints- Visible prints, latent prints and plastic prints.

Recommended readings:

1. Peter R. De Forest et.al (1983) *Forensic Science: An introduction to Criminalistics*, McGraw Hill Book Company, New York.
2. Peter White (Ed.,) (1998) *Crime Scene to Court – The essentials of Forensic Science*, The Royal Society of Chemistry, UK.
3. Saferstein R., (2001) *Criminalistics: An introduction to Forensic Science*, Prentice Hall, Eaglewood Cliffs, New Jersey, 2001.
4. William G. Eckert., (1997) *Introduction to Forensic Sciences*, CRC press New York.
5. Barry A.J. Fisher., (2000) *Techniques of Crime Scene Investigation*, 6th Edition, CRC Press, New York.

CFCM2 C02: Forensic Science II

Unit I: Forensic Biology

Structure of hair, human and animal hair, Collection of samples for hair comparison, Fibre evidence in investigation, Collection of fibre evidence in hanging/ strangulation and smothering Personal identification by Skull superimposition.

Unit II: Forensic Serology-I

Blood- Composition of blood- Detection, origin and grouping of blood, Brief description of Benzidine test, Phenolphthalein test, Spectroscopic test and Takayama test.

Unit III: Forensic Serology-II

Saliva and Semen- Identification of saliva, Structure and identification of spermatozoa, Acid phosphatase test, Dr. Florence Test, Secretary Status, Collection and preservation of crime scene body fluids.

Unit IV: DNA Typing

Importance of DNA Profiling- Components of DNA, Structure of DNA molecule, RFLP, PCR and STR Analysis Uses of DNA Profiling, Preservation of samples for DNA analysis.

Unit V: Forensic Odontology

An introduction to Forensic odontology- Historical cases, Documentation of bite marks, Evidence collection, Bite mark analysis.

Recommended readings:

1. Peter R. De Forest et.al (1983) *Forensic Science: An introduction to Criminalistics*, McGraw Hill Book Company, New York.
2. Peter White (Ed.,) (1998) *Crime Scene to Court – The essentials of Forensic Science*, The Royal Society of Chemistry, UK.
3. Saferstein R., (2001) *Criminalistics: An introduction to Forensic Science*, Prentice Hall, Eaglewood Cliffs, New Jersey, 2001.
4. William G. Eckert., (1997) *Introduction to Forensic Sciences*, CRC press New York.

6. Barry A.J. Fisher., (2000) *Techniques of Crime Scene Investigation*, 6th Edition, CRC Press, New York.

CFCM3 C03: Forensic Medicine I

Unit I: Introduction

Scope and importance of Forensic Medicine, Identification data, Anthropometry, Determination of age, Corpus delicti,

Unit II: Death and its Causes

Modes of death-Somatic death, Brain death, coma, Syncope, Asphyxia, Cause of death, Negative autopsy, Thermal death –Burns, Degree of burns, flash burns, Scalds, pugilistic attitude, Electrical injuries, joule burn

Unit III: Medico-Legal Autopsy

External and internal examination, Exhumation, Post mortem changes- Cadaveric spasm, Postmortem lividity, Rigor mortis, Marbling, Putrefaction, Estimation of time of death.

Unit IV: Mechanical Asphyxia

Hanging- symptoms and causes of death, Postmortem appearance, Partial hanging, Suicidal/ homicidal / accidental hanging. Strangulation- postmortem appearance, Smothering, throttling, Bandsola, gagging, mugging, Cafe coronary.

Unit V: Drowning

Drowning- definition, Mechanism of drowning, Duration of submersion, Types of drowning,- dry drowning, Immersion syndrome, Drowning in sea-water and fresh water, External symptoms of antemortem drowning, Homicidal drowning, Diatoms.

Recommended readings:

1. Apurba Nandy (2002) *Principles of Forensic Medicine*.
2. Bann, Polson C.J., *Knight Bernard, Essentials of Forensic medicine*.
3. Basu S.C., *Handbook of Forensic Medicine and Toxicology*.
4. Camps F.E, *Gradwohl's Legal medicine*.

CFCM4 C04: Forensic Medicine II

Unit I: Common Injuries

Types of injuries- abrasions, Contusions, Lacerations, Incisions, Railway injuries, Antemortem and postmortem injuries, Forensic odontology and bite marks, Firearm wounds- exit and entry wounds, Ricochet bullets.

Unit II: Introduction to Toxicology

General Considerations and definitions, Ideal suicidal / homicidal poisons. Chances of poisoning, Routes of administration, Disposal of poisons in the body, Routes of elimination. Causes modifying the action of poisons. Acute and chronic poisoning. Failure to detect poison. Chemical analysis.

Unit III: Classification of Poisons

Corrosive poisons-Strong acids alkalis, Hydrochloric acid, Sulphuric acid, phenol, Vitriolage
Strong alkalis, Irritant poisons-Ricinus, Abrus, Calotropis and Semicarpus, Snake bites-
symptoms of cobra, krait and viper venom, Metallic poisons- Action of arsenic, mercury, lead, bismuth and copper.

Unit IV: Deliriant and Cardiac Poisons

Effects of deliriant poisons- Datura, Cannabis and cocaine, **Cardiac poisons**- Nerium, odollam, Hydrocyanic acid and cyanides.

Unit V: Inebriant Poisons

Action of Methyl alcohol, Ethyl alcohol, Barbiturates, Narcotics, Somniferous poisons- Opium poisoning.

Recommended readings:

1. Apurba Nandy (2002), *Principles of Forensic Medicine*.
2. Bann, Polson C.J., *Knight Bernard, Essentials of Forensic medicine*.
3. Basu S.C., *Handbook of Forensic Medicine and Toxicology*.
4. Camps F.E, *Gradwohl's, Legal medicine*.