

KARNATAK UNIVERSITY, DHARWAD ACADEMIC (S&T) SECTION

ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ ವಿದ್ಯಾಮಂಡಳ (ಎಸ್&ಟಿ) ವಿಭಾಗ



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NAAC Accredited 'A' Grade 2014 website: kud.ac.in

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ಅಧಿಸೂಚನೆ

ವಿಷಯ: ರಾಷ್ಟ್ರೀಯ ಶಿಕ್ಷಣ ನೀತಿಯನುಸಾರ 2024–25ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ ಎಲ್ಲ ಸ್ನಾತಕೋತ್ತರ ಪದವಿಗಳಿಗೆ / ಸ್ನಾತಕೋತ್ತರ ಡಿಪ್ಲೋಮಾಗಳಿಗೆ ಪಠ್ಯಕ್ರಮವನ್ನು ಪ್ರಕಟಣೆ ಕುರಿತು. ಉಲ್ಲೇಖ: 1. ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ನಿರ್ಣಯ ಸಂಖ್ಯೆ: 2 ರಿಂದ 9, ದಿ: 08.11.2024. 2. ಮಾನ್ಯ ಕುಲಪತಿಗಳ ಅನುಮೋದನೆ ದಿನಾಂಕ: 11.11.2024.

ರಾಷ್ಟ್ರೀಯ ಶಿಕ್ಷಣ ನೀತಿಯನುಸಾರ 2024–25ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ ಅನ್ವಯವಾಗುವಂತೆ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯದ ಎಲ್ಲ ಸ್ನಾತಕೋತ್ತರ ಪದವಿಗಳಾದ M.A./ M.Sc / M.Com / MBA / M.Ed 1 ರಿಂದ 4ನೇ ಸೆಮೆಸ್ಟರ್ಗಳಿಗೆ ಮತ್ತು 1 & 2ನೇ ಸೆಮೆಸ್ಟರ್ಗಳ ಸ್ನಾತಕೋತ್ತರ ಡಿಪ್ಲೋಮಾಗಳಿಗೆ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ಅನುಮೋದನೆಯೊಂದಿಗೆ ಈ ಕೆಳಗಿನಂತೆ ಪಠ್ಯಕ್ರಮಗಳನ್ನು ಅಳವಡಿಸಿಕೊಳ್ಳಲಾಗಿದೆ. ಕಾರಣ, ಸಂಬಂಧಪಟ್ಟ ಎಲ್ಲ ಸ್ನಾತಕೋತ್ತರ ವಿಭಾಗಗಳ ಅಧ್ಯಕ್ಷರು / ಸಂಯೋಜಕರು / ಆಡಳಿತಾಧಿಕಾರಿಗಳು / ಮಹಾವಿದ್ಯಾಲಯಗಳ ಪ್ರಾಚಾರ್ಯರುಗಳು / ಶಿಕ್ಷಕರು ಸದರಿ ಪಠ್ಯಕ್ರಮಗಳನ್ನು ಅನುಸರಿಸುವುದು ಮತ್ತು ಸದರಿ ಪಠ್ಯಕ್ರಮವನ್ನು ಕ.ವಿ.ವಿ. ಅಂತರ್ಜಾಲ <u>www.kud.ac.in</u> ದಲ್ಲಿ ಭಿತ್ತರಿಸಲಾಗಿದನ್ನು ಸಂಬಂಧಪಟ್ಟ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಸೂಚಿಸುವುದು.

Arts Faculty

Sl.No	Programmes	Sl.No	Programmes
1	Kannada	8	MVA in Applied Art
2	English	9	French
3	Folklore	10	Urdu
4	Linguistics	11	Persian
5	Hindi	12	Sanskrit
6	Marathi	13	MPA Music
7	MVA in Painting		

Faculty of Science & Technology

Sl.No	Programmes	Sl.No	Programmes		
1	Geography	10	M.Sc (CS)		
2	Chemistry	11	MCA		
3	Statistics	12 Marine Biology			
4	Applied Geology	13	Criminology & Forensic Science		
5	Biochemistry	14	Mathematics		
6	Biotechnology	15	Psychology		
7	Microbiology	16	Applied Genetics		
8	Zoology	17	Physics		
9	Botany	18	Anthropology		

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Faculty of Social Science

Sl.No	Programmes Sl.No	Programmes				
1	Political Science	8	Journalism m & Mass Commn.			
2	Public Administration	9	M.Lib. Information Science			
3	History & Archaeology	10	Philosophy			
4	A.I.History & Epigraphy	11	Yoga Studies			
5	Economics	12	MTTM			
6	Sociology	13	Women's Studies			
7	MSW					

Management Faculty

Sl.No	Programmes	Sl.No	Programmes
1	MBA	2	MBA (Evening)

Faculty of Commerce

Sl.No Programmes		Sl.No	Programmes	
1	M.Com	2	M.Com (CS)	

Faculty of Education

Sl.No	Programmes	Sl.No	Programmes
1	M.Ed	2	M.P.Ed

OFC subject for PG

Sl.No	Programmes	Sl.No Programmes		
1	Russian	5	Veman Peetha	
2	Kanaka Studies	6	Ambedkar Studies	
3	Jainology	7	Chatrapati Shahu Maharaj Studies	
4	Babu Jagajivan Ram	8	Vivekanand Studies	

PG Diploma

Sl.No	Programmes	Sl.No	Programmes			
1	PG Diploma in Chatrapati Shahu Maharaj Studies	2	P.G. Diploma in Women's Studies			
3	P.G. Diploma in Entrepreneurial Finance					

ಅಡಕ: ಮೇಲಿನಂತೆ

- 1. ಕ.ವಿ.ವಿ. ಸ್ನಾತಕೋತ್ತರ ಅಧ್ಯಕ್ಷರುಗಳಿಗೆ / ಸಂಯೋಜಕರುಗಳಿಗೆ / ಆಡಳಿತಾಧಿಕಾರಿಗಳಿಗೆ / ಮಹಾವಿದ್ಯಾಲಯಗಳ ಪ್ರಾಚಾರ್ಯರುಗಳಿಗೆ
- 2. ಎಲ್ಲ ನಿಖಾಯದ ಡೀನರು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.

- 1. ಕುಲಪತಿಗಳ ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
- ಕುಲಸಚಿವರ ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
 ಕುಲಸಚಿವರು (ಮೌಲ್ಯಮಾಪನ) ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
- 4. ಅಧೀಕ್ಷಕರು, ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ / ಗೌಪ್ಯ / ಜಿ.ಎ.ಡಿ. / ವಿದ್ಯಾಂಡಳ (ಪಿ.ಜಿ.ಪಿಎಚ್.ಡಿ) ವಿಭಾಗ/ ಸಿಸ್ಟಮ್ ಅನಾಲೆಸಿಸ್ಟ್ / ಸಂಬಂಧಿಸಿದ ಪದವಿಗಳ ವಿಭಾಗಗಳು, ಪರೀಕ್ಷಾ ವಿಭಾಗ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
- 5. ನಿರ್ದೇಶಕರು, ಕಾಲೇಜು ಅಭಿವೃದ್ಧಿ / ವಿದ್ಯಾರ್ಥಿ ಕಲ್ಯಾಣ ವಿಭಾಗ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
- 6. ನಿರ್ದೇಶಕರು, ಐ.ಟಿ. ವಿಭಾಗ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ ಇವರಿಗೆ ಕ.ವಿ.ವಿ. ಅಂರ್ತಜಾಲದಲ್ಲಿ ಪ್ರಕಟಿಸುವುದು.

KARNATAK UNIVERSITY, DHARWAD



Regulations and Syllabus

for

P.G. Department of Studies

M.Sc. in FORENSIC SCIENCE AND CRIMINOLOGY

I to IV Semesters

Programme structure and Syllabus

As per NEP-2020

With effect from 2024-2025



GENERAL INSTRUCTIONS

I. CREDIT, WORKLOAD AND SYLLABUS EQUIVALENCE:

- 1. One credit is equal to 1 hour theory teaching per week.
- 2. One credit is equal to 2 hour practical teaching per week.
- 3. One credit is equal to 15 hours theory syllabus per semester (1 Unit is equal to 15 Hours)
- 4. One credit is equal to 30 hours practical syllabus per semester (1 credit practical is equal to 2 hours/week)

A. Workload for theory subjects:

- 1. There shall be 16 hrs/week workload for Assistant Professor
- 2. There shall be 14 hrs/week workload for Associate Professor/Professor/Senior Professor.
- 3. There shall be 2hrs/week workload relaxation for Guiding Ph.D. students

B. Workload for practical subjects:

- 1. There shall be 20 hrs/week workload for Assistant Professor
- 2. There shall be 18 hrs/week workload for Associate Professor/Professor/Senior Professor.
- 3. There shall be 2hrs/week workload relaxation for Guiding Ph.D. students

C. Workload for practical batches:

1. A batch of 10-12 students shall have 1 teacher

D. Workload for Project:

- 1. Students for projects / internship shall be preferably guided by permanent faculty for atleast10 students by sharing equally among the permanent faculty. If remained excess shall be allotted to other teacher's on roll on temporary basis.
- 2. If there are no permanent faculty, the students shall be distributed among the temporary teachers on roll.
- 3. There shall be maximum of 4 hrs/week workload for guiding the students for project work irrespective of number of students.

II. ALLOTMENT OF SPECIALIZATION:

While allotting specialization in 3rd and 4th semester, minimum of 10 students shall have to select the specialization.

III. ATTENDANCE: 75% attendance is mandatory for every course (paper). No marks are reserved for attendance. If the candidates fail to fulfill 75% attendance in any one of the course (paper) in the given semester, such candidate is not eligible to appear for examination in all the papers and candidate has to get the readmission for such semester. However, up to 20% attendance may be condoned with the supportive documents for a student who represents University /State / National level sports, cultural and other events. Monthly attendance shall be displayed on notice board.

IV. CREDIT AND MARKS EQUIVALENCE:

- 1. Generally, 20% weightage for Formative assessment and 80% weightage for Summative assessment.
- 2. Up to 2 credits equal to 50 marks (10 marks Formative assessment and 40 marks summative assessment).
- 3. 3-4 credits equal to 100 marks (20 marks Formative assessment and 80 marks summative assessment).
- 4. 5-6 credits equal to 150 marks (30 marks Formative assessment and 120 marks summative assessment).
- 5. Example for 100 marks out of which 20 marks for Formative assessment i.e., Formative Assessment shall be in two internal assessments i.e.: 10 marks I.A. for 8th week and 10 marks for 14thweek of every semester.

V. CONDUCT OF EXAMINATION:

- 1. Formative assessment examination shall be conducted for 1hr. There shall not be any provision for improvement. A special Formative assessment examination shall be conducted for a student who represents University /State / National level sports, cultural and other events if a schedule is overlapping.
- 2. 80 marks summative theory examination shall be conducted for 3 hrs and 40 marks for 1.5 hrs.
- 3. 80/40 marks Formative / Summative Practical examination shall be conducted for 4 hrs.
- **4.** There shall be a single examiner for both even and odd semesters' Formative Practical examination.
- **5.** There shall be a single examiner for odd semester Summative Practical examination and two examiners for even semester Summative Practical examination; one from internal and other shall be external examiner.

VI. ASSESSMENT:

- 1. Theory papers: There shall be a single valuation for odd semester theory papers preferably internal examiner and double valuation for even semesters; one from internal and other shall be external examiner.
- 2. Project/Internship assessment
- A) For 100 marks Project/Internship assessment (Wherever applicable):
 - i. Formative Assessment: Project/Internship assessment carrying 20 marks out of 100 marks Candidate has to submit two Progress Reports; each carries 10 Marks. i.e. 10 x 2= 20 marks.
 - ii. Summative Assessment: Project/Internship assessment carrying 80 marks out of 100 marks
 - a. Project Report: 35
 - b. Presentation: 25

c. Viva-voce : 20

B) For 150 marks Project/Internship assessment (Wherever applicable):

i. Formative Assessment: Project/Internship assessment carrying 30 marks out of 150 marks Candidate has to submit two Progress Reports; each carries 15 Marks. i.e. 15 x 2= 30 marks.

ii. Summative Assessment: Project/Internship assessment carrying 120 marks out of 150 marks

a. Project Report: 60

b. Presentation : 35

c. Viva-voce : 25

VII. PASSING CRITERIA:

1. There shall be no minimum passing marks for Formative assessment.

2. Candidate has to score minimum 40% in summative examination and fulfill 40% of the maximum marks including Formative assessment marks. For example: for 80 marks summative examination, candidate has to score minimum of 32 marks (40%) and should score cumulatively 40 marks including formative assessment in every course.

VIII. DECLARATION OF RESULT:

1. Candidate has to score 40% as above in all the courses to pass the semester end examination to declare pass.

2. Percentage and Grading: Result shall be declared in terms of SGPA and at the end of four semesters as CGPA. The calculation of CGPA is as under

3. If P is the percentage of marks secured (IA + semester end score) by the candidate in a course which is rounded off to the nearest integer, the grade point (GP) earned by the candidate in that course will be given as below.

Percentage (%)	Grade(GP)	Percentage (%)	Grade(GP)
40	4.0	71-75	7.5
41-45	4.5	76-80	8.0
46-50	5.0	81-85	8.5
51-55	5.5	86-90	9.0
56-60	6.0	91-95	9.5
61-65	6.5	96-100	10.0
66-70	7.0		

Grade point of less than 4 shall be considered as fail in the course, hence, GP=0 and for the absent candidate also GP=0

- 4. A student's level of competence shall be categorized by grade point (GP), Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) of the programme.
- 5. Semester Grade Point Average (SGPA): The SGPA is a ratio of sum of the number of Credit Grade Points scored from all the courses (subject) of given semester to the total credits of such semester in which the candidate studied. (Credit Grade Points of each course = Credits x GP).
- 6. Cumulative Grade Point Average (CGPA): It is calculated as below for 4 semester programme. CGPA=(Credit1 x SGPA1) + (Credit2 x SGPA2) + (Credit3 x SGPA3) + (Credit4 x SGPA4) / Total credits of programme (sum of credits of 4 semesters).
- 7. After studying and passing, all the credits prescribed for the programme the degree shall be awarded with CGPA score after rounding off to second decimal and class distinguishing as second class, first class, and distinction along with grade letter as under:

CGPA of the	Class obtained	Grade Letter
programme (Degree)		
9.5 to 10.00	Outstanding	A++
7.00 to 9.49	Distinction	A+
6.00 to 6.99	First Class	A
5.50 to 5.99	Second class	B+
5.00 to 5.49	2000110 014155	В
4.00 to 4.99	Pass	С
Less than 4.0	Fail/ Reappear	D

- 8. Each semester Grade Card shall have marks and SGPA and final Grade Card shall have semester wise marks obtained in all semesters, CGPA and % of cumulative marks obtained from all semesters.
- 9. There shall be Revaluation / Challenge valuations provisions as per the prevailing rules and regulations.
- 10. Marks obtained from the OEC shall not be considered for award of CASH PRIZE / RANK / GOLD MEDAL.

IX. MAXIMUM DURATION FOR COMPLETION OF THE PROGRAMME:

A candidate admitted to any P.G. Programme shall complete it within a period, which is double the duration of the programme from the date of admission.

X. ANY OTHER TERMS AND CONDITIONS:

Apart from the above, the prevailing rules and regulation are valid for any other matters which are not addressed in this regard.

KARNATAK UNIVERSITY DHARWAD

Syllabus of M.Sc. in Forensic Science and Criminology (With effect from 2024-2025)

Objectives of the Course: The course is designed to acquaint students with the nature of Crime and its treatment & prevention. In recent years, the concept of crime has undergone considerable change. Sophisticated methods have been designed by unscrupulous members of society to commit crimes.

The perpetrators of crime include persons in high places, public officials, criminal gangs who have come on the scene which indulge in smuggling, illegal human trafficking and drugs, boot legging, book making, child abuse etc., communal disturbances leading to the large scale destruction of life and property have become quite common. These developments have necessitated a re-examination of our pre-conceived notions regarding causes of crime and methods used for its prevention and control.

The course dwells on the methods of punishment and their efficacy and examines several alternatives to imprisonment, like probation, conditional release, parole and communication of sentences. Further, it would help them to avail all options to inculcate those areas of knowledge in the day-to-day police work and forensic importance.

Indeed, the need to pursue the constitutional and legally ordained tasks by the police in a systematic and scientific manner is most felt in the area of Crime Investigation and it is here that the police outfits have to put the knowledge and skill of science in the process of gathering evidence towards upholding the rule of law.

There is a great need to infuse amongst them the urge to invoke science in all their role and goal endeavors and to make them realize that application of scientific style is not only the correct and valid procedure besides being simpler and humane. From that desirable angle the theme of the seminar becomes very relevant.

With that noble objective in mind, we thought that it would be proper as well as appropriate that selected cases of investigation where science was full availed and further the variety and sweep of science must be brought to the knowledge of the layman, besides focusing the attention amongst the public the significance of the issue.

Innovative urge coupled by methodical way of analyzing facts and materials available, reconstructing a crime scene, Crime scene management, has been getting an increasingly firmer and reliable foundation and thus we have the application of science to the enforcement of Rule of Law.

Illustrations and so many other details so provided, it will enthuse especially the investigation personals at various levels in the state to emulate the ideas and inculcate a real and lasting urge to tackle all their crime detecting tasks by applying all available strategies and methods of investigation.

Further, it is also necessary to infuse amongst the common people the awareness of the subject especially with regard to preserving the scene of crime as such a step helps immensely in crime fighting.

Projects are especially designed for students to focuses on the natural phenomenon in the society and alternative means to reciprocate them in proper way.

The objective is to develop among students a greater understanding of social costs of crime and the effective ways of lessening them.

M.Sc. in FORENSIC SCIENCE AND CRIMINOLOGY SEMESTER WISE CREDIT DISTRIBUTION

CATEGORY	MINIMUM C	TOTAL CREDITS			
	SEM-I	SEM-II	SEM-III	SEM-IV	
COMPULSORY SUBJECTS (THEORY)	16	12	08	12	48
COMPULSORY SUBJECTS (LAB BASED PRACTICALS) FIELD BASED PRACTICALS (LOCAL INSTITUTIONS VISITS/ INTERNSHIP/ DISSERTATION)	08	08	08	08	32
SPECIALIZATION SUBJECTS			04	04	08
OPEN ELECTIVE COURSES		04	04		08
TOTAL	24	24	24	24	96

- 1. Eligibility condition: students who seek admission to the M.Sc. degree in Forensic Science and Criminology must possess Forensic Science and Criminology in their graduation level & B.Sc., BCA, LAW degree and any Science degree of this University or any other recognized university as equivalent there to by this university shall be eligible for admission to post-graduate programmes, provided they also satisfy the eligibility conditions like percentage of marks etc., as may be prescribed by the university and as per ordinance.
- 2. The M.Sc. programme in Forensic Science and Criminology degree course extends for a period of two years [4-semesters]. There will an examination at the end of each semester.
- 3. In order to be eligible for the M.Sc. degree programme a candidate has to complete the prescribed semesters, including theory, practical's, internship/block placement, field work, Dissertation etc for duration of two years.
- 4. Medium of instruction shall be English for all the subjects in M.Sc Forensic Science and Criminology.
- 5. There shall be three categories of courses viz. Compulsory course, Specialization course and Open elective course. Compulsory and Specialization courses are from the P.G. Department of Forensic Science and Criminology. The open electives are the courses offered for the other department students.
- 6. There shall be internal assessment for each paper of 20 marks for each semester and practical's also.
- 7. Each compulsory, specialization and elective course will have four credits. At the end of the 4th semester student has to undertake the dissertation.
- 8. Evaluation of Local Institutions Visit and Internship/ Dissertation shall be done on the basis of reports submitted by the students, and the receiving supervisor from the faculty allotted to the students, besides the viva-voce examination held at the end of the III and IV semester. For Local Institutions Visit there shall be 50 marks and for Internship there shall be for 50 marks each, Dissertation carries 100 marks.
 - Completion of an internship with any Forensic Science and Criminology subject related institutions is compulsory. This internship for III semester has to be undertaken by the students at the end of II semester [During Vacation]. A detailed

report of the internship undertaken along with the certification of the institution the

student worked for, should be submitted to the Chairperson of the department with the

certification of supervisor.

9. The intake capacity for the M.Sc. program in normal and enhanced fee structure will

be announce/ decide by Karnatak University authority.

10. The students shall be considered to have satisfied the requirement of attendance if

he/she has attended not less than 75% of total number of classes held till the end of

the semester. Each paper shall be taken as a unit for calculating the attendance. Each

student will have to sign his/her attendance for every hour of teaching in each paper/

Subject. The course teacher shall submit monthly attendance report to the Chairman at

the end of every month. The Chairman of the Department shall notify the attendance

of every student on the notice Board of the Department during the first week of

subsequent month. The Chairman of the Department shall send the attendance

information to the Registrar from time to time, In order to encourage regularity.

75% of attendance is compulsory in each course/ subject; there shall no marks

for the attendance. If the students do not satisfy the required attendance of 75% in

each paper they shall not be permitted to appear for the semester end examination.

Such candidates may seek admission afresh to the given semester.

Evaluation:

Evaluation of the papers will have two components

I) Formative Assessment and

II) Summative Assessment.

Formative Assessment/Internal assessment shall consist of two components

Two written tests

1st Internals Test = 10 Marks

 2^{nd} Internals Test = 10 Marks

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Total Marks 20 Marks

Attendance rules for granting semester terms as per the rules of the University & the Details of Fees, Application form for Admission, Scholarship, Library, Sports and Cultural activities as per

rules of the university.

KARNATAK UNIVERSITY, DHARWAD

M.Sc. in Forensic Science and Criminology

	Type	Theory /	Theory / Garage		Instruction	Total	Duration	Marks			
Sem.	of Course	Practical	Course Code	Course Title	hour/ week	hours / sem	of exam	Formative	Summative	Total	Credits
I	DSC 1	Theory	A1FSC001T	Comparative Criminology	04	60 hrs	03 hrs	20	80	100	04
	DSC 2	Theory	A1FSC002T	Advanced Forensic Science	04	60 hrs	03 hrs	20	80	100	04
	DSC 3	Theory	A1FSC003T	Cyber Forensics	04	60 hrs	03 hrs	20	80	100	04
	DSC 4	Theory	A1FSC004T	Criminal Justice System& Criminal Law	04	60 hrs	03 hrs	20	80	100	04
	DSC 5	Practical	A1FSC005P	Advanced Forensic Science (Practical)	08	120 hrs	04 hrs	20	80	100	04
	DSC 6	Practical	A1FSC006P	Cyber Forensics (Practical)	08	120 hrs	04 hrs	20	80	100	04
								120	480	600	24
II	DSC 7	Theory	A2FSC001T	Research Methodology and Statistical Methods	04	60 hrs	03 hrs	20	80	100	04
	DSC 8	Theory	A2FSC002T	Police Organization and	04	60 hrs	03 hrs	20	80	100	04

				Investigation							
	DSC 9	Theory	A2FSC003T	Forensic Prints and Impressions	04	60 hrs	03 hrs	20	80	100	04
	DSC 10	Practical	A2FSC004P	Police Investigation (Practical)	08	120 hrs	04 hrs	20	80	100	04
	DSC 11	Practical	A2FSC005P	Forensic Prints and Impressions (Practical)	08	120 hrs	04 hrs	20	80	100	04
	OEC 01	Theory	A2FSC206T	Police Science	08	120 hrs	03 hrs	20	80	100	04
								120	480	600	24
III	DSC 12	Theory	A3FSC001T	Forensic Psychology	04	60 hrs	03 hrs	20	80	100	04
	DSC 13	Theory	A3FSC002T	Penology and Correctional Administration	04	60 hrs	03 hrs	20	80	100	04
	DSE 1	Theory (Specialization)	A3FSC103AT A3FSC103BT	Advanced Forensic Medicine and Toxicology Forensic Victimology	04	60 hrs	03 hrs 03 hrs	20	80	100	04
	DSC 14	Practical	A3FSC004P	Forensic Psychology (Practical)	08	120 hrs	04 hrs	20	80	100	04
	DSC 15	Practical Practical	A3FSC005P	Local Institutions Visits	08	120hrs 120hrs	04 hrs 04 hrs		50 50	100	04

				Internship													
	OEC 02	Theory	A3FSC206T	Elements of Forensic Science	08	120 hrs	03 hrs	20	80	100	04						
								100	500	600	24						
IV	DSC 16	Theory	A4FSC001T	Forensic Document Examination	04	60 hrs	03 hrs	20	80	100	04						
	DSC 17	Theory	A4FSC002T	Crime Against Women and Children	04	60 hrs	03 hrs	20	80	100	04						
	DSC 18	Theory	A4FSC003T	Forensic Ballistics	04	60 hrs	03 hrs	20	80	100	04						
	DSE 2	Theory	A4FSC104AT	Crime Scene Management	04	60 hrs	03 hrs	20	80	100	04						
	DGL 2	(Specialization)		(Specialization)	(Specialization)	(Specialization)	(Specialization)	(Specialization)	A4FSC104BT	Investigative Journalism	04	60 hrs	03 hrs	20	00	100	04
	DSC 19	Practical	A4FSC005P	Forensic Document Examination (Practical)	08	120 hrs	04 hrs	20	80	100	04						
	DSC 20	Practical/ Dissertation	A4FSC006P	Dissertation	08	120 hrs	04 hrs	20	80	100	04						
		at a last and One and						120	480	600	24						

Note: Students must select any One out of the Two offered Specialization Papers in the III and IV Semesters

M.SC. IN FORENSIC SCIENCE AND CRIMINOLOGY

Course Title: COMPARATIVE CRIMINOLOGY I SEMESTER

Course Code: A1FSC001T

(20+80 = 100 Marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

After successfully completing this course

- CO 1. Students will develop a deep understanding of foundational criminological theories, their evolution, and their applications in analyzing crime patterns across different cultural and societal contexts.
- CO 2. Students will be able to critically evaluate how global processes, cultural norms, and media shape crime, justice responses, and perceptions of deviance in various societies.
- CO 3. Students will be able to apply theoretical and practical knowledge of criminology to design, assess, and implement effective crime control strategies at local, national, and international levels.
- CO 4. Students will be able to understand Comparisons and Criminological Theories and its role in percent society.

Unit I:	Criminology Foundations and Cultural Influence	15hours
	a. Criminology: Definition, Nature, Scope, Importance	
	b. Differences between Criminology and Criminal Justice	
	c. The role of Culture Shaped by Time and Place	
	d. Critical Criminology: Politics, Media Influence, and Moral Panics, Deviance and	
	Crime	
	e. Crime and Control in a Globalized World	
Unit II:	Crime Typologies and Societal Impact	15hours
	a. Cross-national Comparisons in Criminology	
	b. Predicting Crime Types; Similarities and Differences Across Nations	
	c. Exploring the Limitations of Criminological Theories	
	d. Crime as a Societal Issue (Influence of Culture, Politics, Networks, Institutions)	
	e. Crime as an Individual Issue (Role of Biology, Psychology, Behavior)	
	f. Hate Crimes, Organized Crimes, White-Collar Crimes, Victimless Crimes,	
	Family-Centred Crimes, Modern Crimes, Environmental Crimes, Terrorism &	
	Insurgency	
Unit III:	Classical, Biological, Social and Contemporary Theories of Crime	15hours

	a. Early Demonology, Classical Theories, and Neo-Classical Theories	
	b. Positivist Criminology, Morphological Theories, Biological Theories (Genetics,	
	Chromosomes, Twin Studies, Family History)	
	c. Sociological Theories: Social Learning Theories (Differential Association,	
	Differential	
	Identification, Differential Opportunity, Imitation), Social Strain Theories (Anomie,	
	General Strain Theory, , Subculture Theory), Social Control Theories (Drift and	
	Neutralization, Social Bond Theory, Containment Theory, Self-Control Theory),	
	Social	
	Conflict Theories (Marxist, Radical, Critical, Labeling), Modern Theories (Routine	
	Activity Theory, Rational Choice Theory, Re-integrative Shaming, Broken Window	
	Theory.	
	d. Psychological theories (Psychoanalysis, personality, mental disorders)	
	e. Economic Theories of Crime	
Unit IV:	Global Comparisons and Criminological Theories	15hours
	a. Comparing Criminology Across Countries	
	b. Defining Crime, Cultural Relativism, and Culture Conflicts	
1	ev 2 dilling crime, contains relatively isin, and contain comments	
	c. Classification of Theories; Weaknesses of General Theories; Adapting Theories	
	c. Classification of Theories; Weaknesses of General Theories; Adapting Theories	
	c. Classification of Theories; Weaknesses of General Theories; Adapting Theories to Different Contexts	
	c. Classification of Theories; Weaknesses of General Theories; Adapting Theories to Different Contexts d. Crime Control Comparisons: Local vs. Transnational Crime	
	 c. Classification of Theories; Weaknesses of General Theories; Adapting Theories to Different Contexts d. Crime Control Comparisons: Local vs. Transnational Crime e. International Crime Control Agencies and Strategies; Best Global Practices 	
	c. Classification of Theories; Weaknesses of General Theories; Adapting Theories to Different Contexts d. Crime Control Comparisons: Local vs. Transnational Crime e. International Crime Control Agencies and Strategies; Best Global Practices f. Cultural Criminology, News Making Criminology, Peace-Making Criminology,	

Reference

- 1. Akers, R. L., & Sellers, C. S. (2013). *Criminological Theories: Introduction, Evaluation, And Application (6th ed.)*. Oxford University Press.
- 2. Beccaria, C. (1963). On Crimes and Punishments (H. Paolucci, Trans.). Bobbs-Merrill.
- 3. Ferrell, J., Hayward, K., & Young, J. (2008). *Cultural Criminology: An Invitation*. SAGE Publications.
- 4. Garland, D. (2002). *The Culture of Control: Crime and Social Order in Contemporary Society*. University of Chicago Press.
- 5. Hagan, F. E. (2020). *Introduction to Criminology: Theories, Methods, and Criminal Behavior* (10th ed.). SAGE Publications.
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Course Title: ADVANCED FORENSIC SCIENCE I SEMESTER

Course Code: A1FSC002T

(20+80 = 100 marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

After successfully completing this course

- CO 1. Demonstrate a comprehensive understanding of advanced forensic science techniques and methodologies.
- CO 2. They will be able to critically analyze and apply advanced techniques to effectively process and interpret forensic evidence in various criminal investigations.
- CO 3. Additionally, students will develop skills in utilizing cutting-edge technologies and approaches to address complex challenges in forensic analysis and contribute to the advancement of forensic science.
- CO 4. Students are able to updating the knowledge of advancement in forensics science

Unit I:	Introduction to Forensic Science & Forensic Biology	15hours
	a) History and Development of Forensic Science	
	b) Role of Forensic Science in the Criminal Justice System	
	c) Crime Scene Investigation Techniques	
	d) Forensic Science in Trials	
	e) Ethics and Professional Standards in Forensic Science	
	f) Quality Assurance and Accreditation in Forensic Science	
	g) Principles of Forensic Genetics and DNA Analysis and Profiling	
	h) Serology and Bloodstain Pattern Analysis	
	i) Botanical Evidences	
	j) Environmental and Ecological Forensics (Wildlife Forensics, Marine Forensics,	
	Environmental Forensics, Forensics in Conservation Efforts).	
	k) Forensic Toxicology and Drug Analysis	
Unit II:	Forensic Chemistry & Physical Evidence	15hours
	a) Analytical Techniques in Forensic Chemistry	
	b) Forensic Analysis of Controlled Substances	
	c) Forensic Firearms and Tool mark Examination	
	d) Arson and Explosive Investigations	
	e) Forensic Analysis of Trace Evidence (Fibres, Paint, Glass, etc.)	
	f) Forensic Analysis of Questioned Documents	

Unit III:	Forensic Instrumentation	15hours
	 a) Microscopy: polarizing, Comparison, Stereoscopic, Florescent and electron Microscopes b) Spectrophotometery: UV, Visible, IR, Raman, Atomic Absorption emission. c) Neutron Activation Analysis. d) X-Rays and X-ray based techniques such as XRD, XRF e) Mass Spectroscopy. f) Chromatographic Techniques: TLC, GLC, HPLC, HPTLC g) Hypenated Techniques: GC-MS, LC-MS, IR-MS and ICP-MS h) Electrophoresis: High and Low voltage Electrophoresis, Immuno-electrophoresis. i) Immunoassays: Principles, Types, Techniques and Applications. 	
Unit IV:	Specialized Forensic Sciences & Human Identification	15hours
	a) Forensic Anthropology and Human Identification	
	b) Forensic Odontology and Bite Mark Analysis	
	c) Human Identification in Mass Disaster Cases	
	d) Forensic Entomology and Time of Death Estimation	
	e) Forensic Psychology and Criminal Profiling	
	f) Lie Detector and Narco-Analysis Interrogation	

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Course Title: CYBER FORENSICS I SEMESTER

Course Code: A1FSC003T

(20+80 = 100 marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course Outcome

After successfully completing this course

- CO 1. Students will develop a solid foundation in the fundamentals of cyber forensics, including types of cybercrimes, digital evidence, and the legal frameworks governing cybercrime investigations.
- CO 2. Learners will gain hands-on experience with key digital forensic tools, data acquisition methods, and the analysis of various file systems, mobile devices, and cloud environments.
- CO 3. Students will be able to critically evaluate and apply advanced forensics methodologies,
- CO 4. Students will be able to understand the IoT, blockchain, and artificial intelligence, while addressing the challenges posed by cross-border cybercrime investigations.

Unit I:	Fundamentals of Cyber Forensics	15hours
	a) Introduction to Cyber Forensics	
	b) Types of Cyber Crimes	
	c) Legal Framework for Cybercrime	
	d) Digital Evidence	
	e) Cybercrime Investigation Methodology	
	f) Ethics in Cyber Forensics	
Unit II:	Digital Forensics Tools and Techniques	15hours

	a) Digital Forensic Tools Overview	
	b) Data Acquisition and Imaging	
	c) Forensic Analysis of File Systems	
	d) Network Forensics	
	e) Mobile Device Forensics	
	f) Cloud Forensics	
Unit III:	Incident Response and Cyber Threat Intelligence and Mobile Forensics	15hours
	a) Incident Response Frameworks	
	b) Malware Analysis	
	c) Forensic Analysis of Web Browsers	
	d) Cyber Threat Intelligence (CTI)	
	e) Forensic Report Writing	
	f) Case Studies in Cyber Forensics	
	g) Mobile Forensics: Data Extraction Methods	
	h) Mobile Application Forensics	
	i) SIM Card and SD Card Forensics	
	j) Bag Operation.	
Unit IV:	IoT Forensics, Emerging Trends, and Challenges in Cyber Forensics	15hours

- a) IoT Forensics Overview
- b) Wearable Technology and Forensics
- c) Automotive Forensics
- d) Artificial Intelligence in Cyber Forensics
- e) Blockchain Forensics
- f) Dark Web Investigations
- g) Ransomware and Cyber Extortion
- h) Data Privacy and Cyber security Regulations
- i) Challenges in Cross-Border Cybercrime Investigations

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Course Title: CRIMINAL JUSTICE SYSTEM AND CRIMINAL LAW I SEMESTER

Course Code: A1FSC004T

(20+80 = 100 marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	

Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

After successfully completing this course students

- CO 1. Are able to understand the evolution and types of criminal justice system
- CO 2. Have a general understating regarding police administration, its hierarchy and objectives.
- CO 3. Can critically evaluate the functions of judicial system, prosecution and Procedures of policy making and correctional administration.
- CO 4. Can analyze Criminal Investigation and Prosecution

Unit I:	Introduction to Criminal Justice System	15hours
	a. Structure of Criminal Justice System: Meaning, Purpose and Social Relevance	
	b. Legislative Process and Criminal Justice System.	
	c. Historical Evolution - Overview of Criminal Justice Sectors National and	
	International Perspective.	
	d. Accusatorial and Inquisitorial Systems of Criminal Justice System.	
	e. Co-ordination in Criminal Justice System-role of legislature, police, judiciary and	
	Prison system.	
Unit II:	Judicial System & Prosecution System	15hours

	a. Importance of judicial system in modern society.	
	b. Judicial organization and administration in India	
	-	
	c. Judicial Administration in India. Presiding Officer, Prosecutor and Defense	
	Counsel.	
	d. Salient Feature of India Judicial System: Independence, Public and Fair Trial.	
	e. Fundamental Elements in Judicial Functioning: Due Process, Speedy Trials and	
	Access to Justice.	
	f. Sentence Process i) Pre-sentence hearing-transfer of cases ii) Sentence-Execution,	
	Suspension, remission and commutation of sentences iii) Reformative sentence-	
	Withdrawal from prosecution-Plea Bargaining-Compounding of Offences.	
	g. Meaning, Purpose and Relevance of Prosecution	
	g. Prosecution Organization in the States	
	h. Relationship between Police and Prosecution	
	i. Prosecution in Lower Court and Prosecution in Appellate Court.	
Unit III:	Criminal law	15hours
	a. Salient features of the BhartiyaNayaSanhita 2023, BhartiyaNagarikaSurkshSanhita	
	and Bhatia SakshaAdineyama& Criminal Law	
	b. General Principles and specific Offences	
	c. Elements of Criminal liability	
	d. Principles of group liability (Section 190,3(5),45,49 to	
	57,61,189(1),191(1)(2)(3),310(3) BNS)	
	e. Offences against person (BNS) Homicide, Kidnapping Abduction, Rape.	
	f. Offence against property (Theft, Robbery, Dacoity and Cheating, Criminal Breach	
	of Trust).	
	g. General Exception i. Right to Private Defence against Person., ii. Right to Private	
	Defense against Property, iii. Insanity and Intoxication, iv. Necessity and Mistake	
Unit IV:	Criminal Investigation and Prosecution	15hours
Omt IV.	Criminai investigation and Frosecution	15HUUI S

- a. i. FIR, Investigation, Arrest and Charge Sheet ii. Custody, Remand and Bail iii. Prosecution iv. Process to Ensure Attendance Summon, Warrant, Search Warrant.
- b. Criminal Trial
- i. Summon Trials, Warrant Trials and Sessions Trial
- ii. Right to Accused (pre-sentence hearing Sec 258(2),271(2) fair/speedy iii. Trial, Right against self-incrimination. iv. Rights of Victims (Plea Bargaining and Victim Participation).
 - v. Free Legal Aid. vi. Punishments under BhartiyaNyayaSanhita.
- c. Evidence law: Scope and relevance
- i. Relevancy and admissibility of facts
- ii. Relevancy of confessions and dying declarations
- iii. Appreciating expert evidence in court
- iv. Burden of proof.

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- 2. Albanese, J. S. (2000). Criminal Justice. Allyn and Bacon.
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Course Title: ADVANCED FORENSIC SCIENCE (PRACTICALS) I SEMESTER

Course Code: A1FSC005P

(20+80 = 100 marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Practicals	04	8 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

After successfully completing this course students

CO 1. Are able to understand the examination of blood and they Will understand the different

Branches been helping hand for forensic science in probing crime.

- CO 2. Will obtain knowledge regarding forensic science laboratories its functions and administration.
- CO 3. Have a general understating regarding different types of body fluids and its medico legal importance.
- CO 4. Are able to know the specification and difference between hair samples
- 1. Microscopic examination of blood smear under low, high and oil immersion
- 2. Preliminary and confirmatory red stain analysis
- 3. Blood spatter pattern analysis
- 4. Preparation of a hair sample for analysis –decolorization, mounting and observation.
- 5. Separation of plant pigments by paper chromatography
- 6. Separation of ink using Thin Layer Chromatography
- 7. General comparison of Paints, Soils and Glass
- 8. comparison of Miscellaneous evidences Cloth, Bangles and fibres
- 9. Study of Lip prints
- 10. Identification of modern firearms (Revolver, Pistol and Rifles)
- 11. Identification of bullets and cartridge cases
- 12. Determination of bullet entry and exit hole
- 13. Tool Marks examination

Course Title: CYBER FORENSICS (PRACTICALS)

Course Code: A1FSC006P

I SEMESTER

(20+80 = 100 marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	

Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Practicals	04	8 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

After successfully completing this course students

- CO 1. Can understand characteristics, types of cybercrimes
- CO 2. Have a general understanding of crimes on the computer and types of crimes committed by using computers.
- CO 3. Can comprehend investigating techniques of cybercrimes, search seizure and protection evidence in cybercrimes.
- CO 4. Have begun to think critically about the laws related to cybercrimes and role of cyber Police in protection of intellectual properties and preventive measures of cybercrimes.
- 1. Study of networking, Local area network (LAN), Personal area network (PAN), Wireless local area network (WLAN) and Campus area network (CAN)
- 2. Case Studies of cyber crimes
- 3. Open Source cyber Forensic Tool "The Sleuth Kit"
- 4. Disk Forensics and Data Recovery methods
- 5. Investigation on Steganography
- 6. Identification of Key loggers
- 7. Network monitors
- 8. Flowchart management system
- 9. Working with UML diagrams
- 10. E-commerce on websites
- 11. Creating a Forensic Image using FTK Imager/Encase Imager
- 12. Secondary evidence analysis in cyber crimes

Course Title: RESEARCH METHODOLOGY AND STATISTICAL METHODS II SEMESTER

Course Code: A2FSC001T

(20+80 = 100)

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				

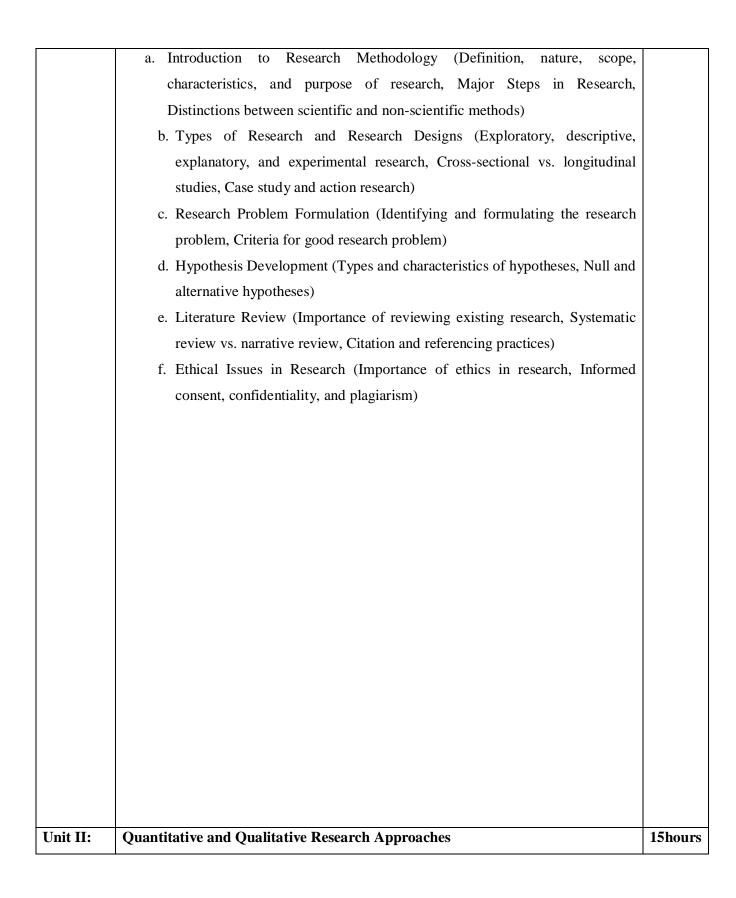
DSC	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

After successfully completing this course students

- CO 1. Are able to use and understand meaning and characteristics of criminological research including steps involving underrating research.
- CO 2. Will have a general understating regarding types of research methods, formation of hypothesis and research design in crime evaluation and criminological research.
- CO 3. Are able critically evaluate hypothesis testing and sample selection.
- CO 4. Will have begun to think critically about research report writing purpose and characteristics of a research report and research mythology.

Unit I:	Foundations of Research in Criminology and Forensic Science	15hours
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 Criminology and Forensic Science, Bias and Random Error, Sample Size Determination) C. Exploratory Data Analysis (Measures of Central Tendency and Dispersion, Box Plots and Histograms, Identifying Outliers and Anomalies) d. Probability and Distributions (Basic Probability Concepts, Discrete and Continuous Probability Distributions, Normal and Binomial Distributions) e. Statistical Software and Tools (Introduction to R or Python for Data Analysis, Data Manipulation and Visualization in R/Python, Hands-on Exercises and Projects) 	
 Criminology and Forensic Science, Bias and Random Error, Sample Size Determination) c. Exploratory Data Analysis (Measures of Central Tendency and Dispersion, Box Plots and Histograms, Identifying Outliers and Anomalies) d. Probability and Distributions (Basic Probability Concepts, Discrete and Continuous Probability Distributions, Normal and Binomial Distributions) e. Statistical Software and Tools (Introduction to R or Python for Data 	
Criminology and Forensic Science, Bias and Random Error, Sample Size Determination) C. Exploratory Data Analysis (Measures of Central Tendency and Dispersion, Box Plots and Histograms, Identifying Outliers and Anomalies) d. Probability and Distributions (Basic Probability Concepts, Discrete and Continuous Probability Distributions, Normal and Binomial Distributions)	
Criminology and Forensic Science, Bias and Random Error, Sample Size Determination) C. Exploratory Data Analysis (Measures of Central Tendency and Dispersion, Box Plots and Histograms, Identifying Outliers and Anomalies) d. Probability and Distributions (Basic Probability Concepts, Discrete and	
Criminology and Forensic Science, Bias and Random Error, Sample Size Determination) C. Exploratory Data Analysis (Measures of Central Tendency and Dispersion, Box Plots and Histograms, Identifying Outliers and Anomalies)	
Criminology and Forensic Science, Bias and Random Error, Sample Size Determination) C. Exploratory Data Analysis (Measures of Central Tendency and Dispersion, Box Plots and Histograms, Identifying Outliers and	
Criminology and Forensic Science, Bias and Random Error, Sample Size Determination) c. Exploratory Data Analysis (Measures of Central Tendency and	
Criminology and Forensic Science, Bias and Random Error, Sample Size Determination)	
Criminology and Forensic Science, Bias and Random Error, Sample Size	
b. Data Collection and Sampling Methods (Sampling Techniques in	
Measurement, Data Visualization Techniques)	
a. Foundations of Statistics (Descriptive vs. Inferential Statistics, Levels of	
troduction to Statistical Concepts and Data Analysis	15hours
research findings in policy making and practice)	
world examples of research in criminology and forensic science, Use of	
• • • • • • • • • • • • • • • • • • • •	
b. Qualitative Research Methods (Characteristics and importance of	
designs)	
quantitative research, Tools: Surveys, questionnaires, and experimental	
	designs) b. Qualitative Research Methods (Characteristics and importance of qualitative research, Techniques: Interviews, case studies, focus groups) c. Data Collection Techniques (Primary vs. secondary data, Observation, interviews, and fieldwork) d. Writing Research Reports (Structure and components of a research report, Presentation of findings, conclusions, and recommendations) e. Applications of Research in Forensic Science and Criminology (Realworld examples of research in criminology and forensic science, Use of research findings in policy making and practice) troduction to Statistical Concepts and Data Analysis a. Foundations of Statistics (Descriptive vs. Inferential Statistics, Levels of Measurement, Data Visualization Techniques)

- a. Principles of Hypothesis Testing (Null and Alternative Hypotheses, Type I and Type II Errors, P-values and Confidence Intervals)
- Parametric Tests in Criminology (t-tests for Independent and Paired Samples, One-Way Analysis of Variance (ANOVA), Assumptions and Interpretation)
- Nonparametric Tests in Forensic Science (Mann-Whitney U Test and Wilcoxon Signed-Rank Test, Kruskal-Wallis Test, Chi-Square Test of Independence)
- d. Correlation and Regression Analysis (Pearson and Spearman Correlation,
 Simple Linear Regression, Multiple Regression and Model Assumptions)
- e. Practical Applications and Case Studies (Analysing Crime Data: Correlations and Patterns, Regression Analysis in Forensic Investigations, Ethical Considerations in Data Analysis)

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- 1. Agresti, A. (2018). Statistical Methods for the Social Sciences (5th ed.). Pearson.
- 2. Babbie, E. R. (2020). The Practice of Social Research (15th ed.). Cengage Learning.
- 3. Creswell, J. W. (2018). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (5th ed.). SAGE Publications.
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- 7. Kothari, C. R., & Garg, G. (2019). Research Methodology: Methods and Techniques (4th ed.). New Age International Publishers.
- 8. McClave, J. T., Benson, P. G., & Sincich, T. (2017). Statistics for Business and Economics (13th ed.). Pearson.
- 9. Neuman, W. L. (2014). Social Research Methods: Qualitative and Quantitative Approaches (7th ed.). Pearson.
- 10. Robson, C. (2011). Real World Research (3rd ed.). Wiley.

- 11. Siegel, S., & Castellan, N. J. (1988). Nonparametric Statistics for the Behavioral Sciences (2nd ed.). McGraw-Hill.
- 12. Silverman, D. (2020). Doing Qualitative Research (6th ed.). SAGE Publications.
- 13. Stockburger, D. W. (2016). Introductory Statistics: Concepts, Models, and Applications (3rd ed.). Cengage.
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%20Statistics%20by%20Yogesh%20Kumar%20Singh.pdf

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https://www.Online Statistics Education.com

Course Title: POLICE ORGANIZATION AND INVESTIGATION II SEMESTER

Course Code: A2FSC002T

(20+80 = 100)

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
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of	Practical		hour per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

- CO 1. Are able to understand the Evaluation and system of police, its role in contemporary India.
- CO 2. Have a general understating regarding Central Police organization set up and functions of Police department.
- CO 3. Are able appraise Karnataka police act and State Police administration,
- CO 4. Have better understating regarding police investigation, procedures and powers of police.

Unit I:	Police Administration	15hours
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	a) Evolution of Police Administration	
	b) Indian Police System	
	c) Indian Police Act	
	d) Rack of Police officers-Badges, Role & Functions of Police	
	e) National Police Commissions (NPC)	
	i. DharamVira Committee Report	
	ii.Riberio Committee Report	
	iii.Padmanabaiah Committee Report,	
	iv.N.H. Vohra Committee Report	
	v.PIL by Sh. Prakash Singh	
	f) National Security Council, State Security Council, State Police Reform	
	Commission	
	g) INTERPOL	
Unit II:	Central Police Organization	15hours
	a) Ministry of Home Affairs (MHA)	
	b) Para Military Forces-BSF,SSB,ITBP,AR	
	c) Central Police Forces- CRPF, CISF, RAF, COBRA, NSG, SPG	
	d) Special Units- IB, R&AW,CBI,NIA,NCB,NCTC, NCRB, BPR&D, NFSU, DFS,	
	NPA	
	i.Staff Units: - BPR&D – NCRB, SVNPA ,CDTI	
	ii.Directorate of Forensic Sciences- CFSL, CFPB, GEQD, DNA Fingerprint Unit.	
	iii.National Investigation Agency: National Investigation Agency(NIA), Research	
	and Analysis Wing(R&A), Intelligence Bureau, Narcotic Control Bureau	
	e) National Forensic Science University(NFSU)	
	f) Narcotic Control Bureau (NCB)	
	g)National Counter Terrorism Centre(NCTC): Union territories Police System	
Unit III:	State Police System	15hours
	a) The Karnataka Police Act, 1963	
	b) General Organization of the State Police-Administrative hierarchy and the Ranges	
1	1	Ĩ
	c) Special Units:	

	i. CID- Organization and Functions							
	a) Economic Crime Wing – Cyber Division, Dowry deaths, Special enquiries,							
	counterfeit currency							
	ii. Intelligence Wing.							
	iii. Recruitment and Training Wing							
	d) Technical Services – DCRB, SCRB, FSL, FPB							
	e) Armed Police Services KSRP, KISF, Costal Security Police, CRP, Forest & Food							
	Cell,							
	f) Police Establishment Board							
	g) Police Commissionerates							
	h) District Police Organization							
	i) Police Management with Police Station, Law and Order, Traffic , Crowed,							
	Disaster							
	Situations.							
	Situations.							
	j) Police Complaint Authority (State and District level)							
Unit IV:		15hours						
Unit IV:	j) Police Complaint Authority (State and District level)	15hours						
Unit IV:	j) Police Complaint Authority (State and District level) Police Investigation	15hours						
Unit IV:	 j) Police Complaint Authority (State and District level) Police Investigation a) Introduction to investigation- General Principles and Steps of Investigations, 	15hours						
Unit IV:	 j) Police Complaint Authority (State and District level) Police Investigation a) Introduction to investigation- General Principles and Steps of Investigations, Qualities of a Good Investigator, Registration of FIR – Provisions under 	15hours						
Unit IV:	 j) Police Complaint Authority (State and District level) Police Investigation a) Introduction to investigation- General Principles and Steps of Investigations, Qualities of a Good Investigator, Registration of FIR – Provisions under BNSS. Cognizable and Non-Cognizable Cases. 	15hours						
Unit IV:	 j) Police Complaint Authority (State and District level) Police Investigation a) Introduction to investigation- General Principles and Steps of Investigations, Qualities of a Good Investigator, Registration of FIR – Provisions under BNSS. Cognizable and Non-Cognizable Cases. b) Power of Police to Investigate, Process of Investigation, Panchanama, 	15hours						
Unit IV:	 j) Police Complaint Authority (State and District level) Police Investigation a) Introduction to investigation- General Principles and Steps of Investigations, Qualities of a Good Investigator, Registration of FIR – Provisions under BNSS. Cognizable and Non-Cognizable Cases. b) Power of Police to Investigate, Process of Investigation, Panchanama, Collection of Evidence, Arrest, Remand, Case Diary, Police Report, Inquest 	15hours						
Unit IV:	 j) Police Complaint Authority (State and District level) Police Investigation a) Introduction to investigation- General Principles and Steps of Investigations, Qualities of a Good Investigator, Registration of FIR – Provisions under BNSS. Cognizable and Non-Cognizable Cases. b) Power of Police to Investigate, Process of Investigation, Panchanama, Collection of Evidence, Arrest, Remand, Case Diary, Police Report, Inquest Proceeding. 	15hours						
Unit IV:	 j) Police Complaint Authority (State and District level) Police Investigation a) Introduction to investigation- General Principles and Steps of Investigations, Qualities of a Good Investigator, Registration of FIR – Provisions under BNSS. Cognizable and Non-Cognizable Cases. b) Power of Police to Investigate, Process of Investigation, Panchanama, Collection of Evidence, Arrest, Remand, Case Diary, Police Report, Inquest Proceeding. c) Investigation of Specific Types of Cases: Murder, Robbery, Dacoity, 	15hours						
Unit IV:	 j) Police Complaint Authority (State and District level) Police Investigation a) Introduction to investigation- General Principles and Steps of Investigations, Qualities of a Good Investigator, Registration of FIR – Provisions under BNSS. Cognizable and Non-Cognizable Cases. b) Power of Police to Investigate, Process of Investigation, Panchanama, Collection of Evidence, Arrest, Remand, Case Diary, Police Report, Inquest Proceeding. c) Investigation of Specific Types of Cases: Murder, Robbery, Dacoity, Snatching, Theft, Burglary, Rape, Molestation, NDPS Cases and Road 	15hours						

- 1. Banerjee, D. (2005). Central Police Organization, Part I & Part II. Allied Publishers Pvt. Ltd.
- 2. Bureau of Police Research and Development. Indian Police Journal.
- 3. Doval, A., & Lal, B. R. (2010). Manas Police Security Yearbook 2010-2011. Manas Publications.
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- 5. Ghosh, G. (2007). *Police Accountability at the Cutting-Edge Level*. APH Publishing Corporation.
- 6. Gupta, A. (2007). Crime and Police in India. Sahitya Bhavan.

- 7. Mallimath Committee on Criminal Justice Reforms. (2003). *Justice Mallimath Committee on Criminal Justice Reforms*. Universal Law Publishing.
- 8. Singh, S. I. (2007). *Community Policing*. Akansha Publishing House.
- 9. Srivastava, A. (1999). Role of Police in Changing Society. APH Publishing House.
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Course Title: FORENSIC PRINTS AND IMPRESSIONS II SEMESTER

Course Code: A2FSC003T

(20+80 = 100)

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				

				Semesters				
DSC	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcome:

- CO 1. Demonstrate a comprehensive understanding of advanced fingerprinting techniques, including the principles, methodologies, and applications.
- CO 2. Discuss the integration of fingerprint biometrics with other biometric systems and its real-world implications.
- CO 3. They will be able to apply this knowledge in real-world scenarios to analyze, enhance, and identify fingerprints accurately and effectively.
- CO 4. Are able to understand and analyze different type of Forensic Impressions

Unit I:	Introduction to Fingerprints	15hours
	a) History of Fingerprints Science	
	b) Main Function of Fingerprint Bureau	
	c) Development of Fingerprint SCIENCE	
	d) Composition of Sweat, Pattern Types & Ridge Characteristics, Ridge Tracing,	
	RidgeCounting.	
	e) Various Systems for Fingerprint Classification: Henry Classification System,	
	Numerical Value, Primary Classification, Secondary Classification, Sub-	
	Secondary Classification and Final Classification.	
	f) Single Digit Classification, Battley Classification.	
	g) Introduction to NCIC, AFIS.	
Unit II:	Development and Analysis of Fingerprint	15hours
	a) Development and Identification & Presentation of Fingerprint	
	b) Chance Prints & Rolled Impressions, Direct Inked Prints	
	c) Development of Latent Prints & Lifting Techniques	
	d) Physical & Chemical Methods: Powder Techniques & Various Chemical	
	Techniques	
	e) Processing of Post Developed Prints.	
	f) Fingerprint Identification & Comparison.	

Unit III:	Fingerprint Detection Techniques	15hours
	a) Optical Detection Techniques- Absorption, Luminescence, Diffused Reflection,	
	Ultraviolet Imaging.	
	b) Detection Techniques for Porous Surfaces: Ninhydrin Analogs, Diazafluorenone	
	(DFO), Physical Developer, Multimetal Deposition (MMD), Recommended	
	Detection Sequence.	
	c) Detection Techniques for Nonporous Surfaces: Fingerprint Powders, Small-	
	Particle Reagent, Cyanoacrylate Fuming, Vacuum Metal Deposition (VMD)	
	d) Detection Techniques for Semi Porous Surfaces: Fingermark Detection on Human	
	Skin, Powdering, Transfer Techniques, Physico-Chemical Methods.	
	e) Fingermark Detection on Firearms and Cartridge Cases	
	f) Enhancement of Fingermarks in Blood, Optical Techniques, Protein Stains,	
	Diaminobenzidine (DAB), Miscellaneous Techniques.	
Unit IV:	Other Impressions	15hours

- a) Forensic Podiatry: Types of Footprint impressions, Gait Pattern Analysis, Casting of 3D Footprints- PoP (Plaster of Paris), Electrostatic Dust Lifting – Footprints. Photography of Footprint Impressions. Comparison of Questioned and Standard Footprints. Factors Influencing Footprints. Expert Opinion on footprint Impressions, Shoe Sole Wear Patterns, Knuckle Impressions.
- Lip prints Nature, Location, Collection and Examination of Lip Prints, Forensic Importance of Lip Print
- c) Ear Prints and Their Significance,
- d) Palm Prints and Their Historical Importance,
- e) Forensic Importance of Bite Impressions
- f) Tyre Impressions, Skid Marks.
- g) Fabric /Textile Impressions

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- 2. Ha, J., & Han, N. (2018). Fingerprint Detection and Recognition. CRC Press.
- 3. Champod, C., Lennard, C. J., Margot, P., & Stoilovic, M. (2004). Fingerprints and Other Ridge Skin Impressions. CRC Press.
- 4. Jain, A. K., Flynn, P., & Ross, A. A. (2015). Handbook of Biometrics. Springer.
- 5. Maltoni, D., Maio, D., Jain, A. K., & Prabhakar, S. (2009). *Handbook of Fingerprint Recognition*. Springer.
- 6. Ratha, N. K., Connell, J. H., & Bolle, R. M. (2007). *Advances in Biometrics: Sensors, Algorithms and Systems*. Springer.
- 7. Suresh, R. M., & Ramakrishnan, S. (2018). *Biometric Authentication: A Machine Learning Approach*. CRC Press.
- 8. Vacca, J. R. (2004). *Biometric Systems: Technology, Design, and Performance Evaluation*. Butterworth-Heinemann
- 9. Vacca, J. R. (2007). Biometric Technologies and Verification Systems. Elsevier.
- 10. Woodward, J. D., Orlans, N. M., & Higgins, P. T. (2001). *Biometrics: Identity Assurance in the Information Age*. McGraw-Hill Education.

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https://www.mha.gov.in/sites/default/files/250882 english 01042024.pdf

Course Title: POLICE INVESTIGATION (PRACTICALS)

II SEMESTER

Course Code: A2FSC004P

(20+80 = 100)

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
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of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Practicals	04	8 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

After successfully completing this course students

- CO 1. Are able to understand the Evaluation and system of police, its role in contemporary India.
- CO 2. Have a general understating regarding Central Police organization set up and functions of

Police department.

- CO 3. Are able appraise Karnataka police act and State Police Administration,
- CO 4. Have better understating regarding police investigation, procedures and powers of police.
 - 1. Police Science: First Information Report
 - 2. Scene of Crime, Search, Panchnama, Inspection, Sketching, Report Writing, Photographing,
 - 3. Reconstruction of Scene of Crime
 - 4. Preservation of the Physical Clues and Forwarding the same to the Concerned Expert for opinion.
 - 5. Inspection of Simulated Scene of Crimes
 - 6. Murder/ Homicide, Theft, House Breaking,
 - 7. Scene of Traffic Accident, Poisoning Cases
 - 8. Accidental Deaths and Injuries Cases.
 - 9. Psychology of Observation: Three Stages of Kims Game
 - 10. Observation and Retention
 - 11. Observation, Retention and Description
 - 12. Observation, Retention and Description with Picture.

Course Title: FORENSIC PRINTS AND IMPRESSIONS (PRACTICALS) II SEMESTER

Course Code: A2FSC005P

(20+80=100

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				

				Hours				
				Semesters				
DSC	Practicals	04	8 hrs	60 hrs	3 hrs	20	80	100

Course outcome

After successfully completing this course students

- CO 1. Demonstrate a comprehensive understanding of advanced fingerprinting techniques, including principles, methodologies, and applications.
- CO 2. Discuss the integration of fingerprint biometrics with other biometric systems and its real-world implications.
- CO 3. They will be able to apply this knowledge in real-world scenarios to analyze, enhance,

and identify fingerprints accurately and effectively.

- CO 4. Understand the working principle of forensic prints and impressions
- 1. Record Plain and Rolled Fingerprints.
- 2. Carry Out Ten Digit Classification of Fingerprints.
- 3. Identify Different Fingerprint Patterns.
- 4. Identify Core and Delta.
- 5. Carry Out Ridge Tracing and Ridge Counting.
- 6. Investigate Physical Methods of Fingerprint Detection.
- 7. Investigate Chemical Methods of Fingerprint Detection.
- 8. Use Different Light Sources for Enhancing Developed Fingerprints.
- 9. Prepare Cast of Foot Prints.
- 10. Detect of Fingerprints by Powder Method.
- 11. Detect Fingerprints by NINHYDRIN Method
- 12. Detect Fingerprints by Iodine Method.
- 13. Detect Fingerprints by Silver Nitrate Method
- 14. Lift the Developed Fingerprints from Different Surfaces Using Tape.
- 15. Cast Footprints Using Plaster of Paris.
- 16. Study the Patterns in Lip Prints.
- 17. Study the Patterns of Bite Marks

Course Title: POLICE SCIENCE II SEMESTER

Course Code: A2FSC206T

(20+80 = 100)

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				

OEC	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

- CO 1. Are able to understand the Evaluation and system of police, its role in India.
- CO 2. Have a general understating regarding Police organization set up and functions of police department.
- CO 3. Are able appraise Karnataka police act and State Police administration,
- CO 4. Have better understating regarding police investigation, procedures and powers of police.

Unit I:	Introduction to Police System	15hours						
	a) Meaning, Concept & Historical Development of Police							
	b) Role of Police in India							
	c) Recruitment & Training of Police Personal							
	d) Karnataka State Police Act-1963 & Subsequent							
	e) Police Commissions -Ribeiro Committee, Padmanabaiah Committee, NH Vohra							
	Committee, Justice Malimath Committee							
Unit II:	Karnataka State Police Organization	15hours						
	a) State Police Organization -District Police							
	b) Civil Police							
	c) Armed Police							
	d) Specialized Unit-Fingerprint, Wireless Wing, Dog Squad, PBS							
	e) CID Lokayukta Police							
Unit III:	Central Police Organization	15hours						
	a) Ministry of Home Affairs							
	b) Para Military Forces-BSF,SSB,ITBP,AR							
	c) Central Police Forces- CRPF, CISF, NSG, SPG							
	d) Special Units- IB, R&AW,CBI,NIA,NCB,NCTC, NIA, NCRB, BPR&D, NFSU,							
	DFS, NPA							
Unit IV:	Police Station and Police Investigation & Crime Prevention	15hours						

- a) Law & Order Duties- Town & Rural Police, Traffic, Women, CEN Police Stations
- Rail Way Police Station
- b) Police Station Management
- c) Recording of FIR, Charge Sheet, Case Dairy
- d) Executive Powers & Duties of Police in Investigation of Crime
- e) Inspection of Scene of Crime, Three 'I's of Investigation
- f) Physical Clues
- g) Crime Prevention & Technology
- h) Beat Patrolling, Surveillance
- i) Police Public Relation

- 1. Banerjee, D. (2005). Central Police Organization, Part I & Part II. Allied Publishers Pvt. Ltd.
- 2. Bureau of Police Research and Development. Indian Police Journal.
- 3. Doval, A., & Lal, B. R. (2010). *Manas Police Security Yearbook 2010-2011*. Manas Publications.
- 4. Earle, H. H. (1970). Police Community Relations. Charles C. Thomas Publisher.
- 5. Ghosh, G. (2007). *Police Accountability at the Cutting-Edge Level*. APH Publishing Corporation.
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- 7. Mallimath Committee on Criminal Justice Reforms. (2003). *Justice Mallimath Committee on Criminal Justice Reforms*. Universal Law Publishing.
- 8. Singh, S. I. (2007). *Community Policing*. Akansha Publishing House.
- 9. Srivastava, A. (1999). Role of Police in Changing Society. APH Publishing House.
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Course Title: FORENSIC PSYCHOLOGY III SEMESTER

Course Code: A3FSC001T

(20+80=100

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				

DSC	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course Outcome:

- CO 1. Understand the role of psychology in the criminal justice system.
- CO 2. Learn about various psychological assessments and their applications in forensic contexts.
- CO 3. Study the principles and methods of offender profiling and understand the psychological factors influencing courtroom processes and decision-making.
- CO 4. Analyse role of Forensic Psychology in Modern Justice Systems

Unit I:	Foundations of Forensic Psychology	15hours					
	a) Introduction to Forensic Psychology						
	b) History and Development of Forensic Psychology						
	c) Legal and Ethical Issues in Forensic Psychology						
	d) Psychological Theories of Crime						
	e) Criminal Profiling and Behavioural Analysis						
	f) Forensic Psychology and the Criminal Justice System						
	g) Role of Forensic Psychologists in Court						
Unit II:	Offender Psychology and Assessment	15hours					
	a) Psychological Assessments in Criminal Cases						
	b) Personality Disorders and Criminal Behaviour						
	c) Mental Health Issues in Offenders						
	d) Risk Assessment and Dangerousness						
	e) Violent and Sexual Offending						
	f) Juvenile Offenders and Developmental Psychology						
	g) Treatment and Rehabilitation of Offenders						
Unit III:	Investigative Psychology and Forensic Applications	15hours					

	a) Forensic Mental Health and Competency Evaluations	
	b) Eyewitness Testimony and Memory in Criminal Trials	
	c) Deception Detection and Lie Detection Techniques	
	d) Police Interrogation and Confession Analysis	
	e) Investigative Interviewing Techniques	
	f) Cognitive Bias in Investigations	
	g) Psychological Autopsies and Crime Scene Analysis	
Unit IV:	Forensic Psychology in Modern Justice Systems	15hours
	a) Delivering Psychological Services in Correctional Facilities	
	b) Strategies for the Assessment and Treatment of Criminal Offenders	
	c) Principles of Restorative Justice and Offender Rehabilitation	
	d) Substance Abuse and its Influence on Criminal Behavior	
	e) Application of Forensic Psychology in Child Custody and Family Legal	
	Disputes	
	Disputes f) The Role of Media and Public Perception in Forensic Psychology	
	f) The Role of Media and Public Perception in Forensic Psychology	

- 1. Bartol, C. R., &Bartol, A. M. (2018). *Introduction to Forensic Psychology: Research and Application (5th ed.)*. SAGE Publications, Inc.
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Course Title: PENOLOGY & CORRECTIONAL ADMINISTRATION III SEMESTER
Course Code: A3FSC002T

(20+80 = 100)

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

After successfully completing this course students

72 Forensic%20Psychology.pdf

- CO 1. Are able to understand forms of punishment, historical development of penology and theories based on punishment.
- CO 2. Have a general understanding of different type prisons, prison administration and concepts of reformation.
- CO 3. Are able to comprehend correctional laws, types of correctional institutions and judicial provisions.
- CO 4. Have begun to think critically about non institutional treatment of inmates, the role of prison and society in correction of inmates.

Unit I:	Introduction to Penology & Correctional Administration	15hours						
	a) Meaning, Definition, Nature & Scope of Penology							
	b) Development of Correctional Administration							
	c) Principles, Policies & Procedures Recent Trends in Correctional Methods							
	Rehabilitation Modals.							
	d) Nature, Meaning, Objective and Importance of Punishment							
	e) Forms of Punishment in Ancient, Medieval and Modern Times							
	f) Theories of Punishment							
	g) Restorative of Justice							
Unit II:	Prison System & Prison Legislation	15hours						

	a) Meaning &Definition of Prison							
	b) Prisons in Ancient, Medieval and Modern Times							
	c) Types of Prisoners							
	d) Evaluation of Correctional Philosophy- Pennsylvania, Auburn, Elmira							
	Reformatory							
	e) Prison Reforms: Role of Inquiry Committees and Commissions							
	f) Prison Administration							
	g) Supervision, Monitoring Prison Management, Facilities							
	h) Modern Prison- Concept Functions.							
Unit III:	Rights of Prisoners & Rights of Women Prisoners	15hours						
	a) History and Evolution of Prison Legislations in India							
	b) Prisons Act., Prisoners Act: Transfer of Prisoners Act							
	c) Prison Manuals							
	d) Nelson Mandela Rules for The Treatment of Prisoners							
	e) Prison Reform Committee & Commissions							
	f) U. N. Standard Minimum Rules for Treatment of Prisoners							
	g) Non Custodial Measures (Tokyo Rules)							
Unit IV:	Institutionalized & Non Institutional Form of Treatment	15hours						
	a) Meaning and purpose							
	b) Types of Institutions: Prison Subculture, Prison Discipline, Prison Adalat							
	c) Adult Institutions							
	i. Juvenile Institutions							
	ii. Children's Homes							
	iii. Open Institutions							
	iv. Women Institutions							
	d) Correctional Programmes, Counseling and Psychological Services							
	e) Vocational Training and Work Programme							
	i. Educational and Literacy							
	ii. Religious Sessions							
	iii. Therapeutic Treatment							

- f) Games, Recreation, Remission, Temporary Release, Pre-mature Release and After Care Services. Reformation & Rehabilitation of PRISONERS
- g) Current Problems and Challenges in Criminal Administration
- h) Meaning, Purpose, Importance and Types of Non-Institutional Treatment
- i) Probation, Meaning, Scope and Legal Provisions Under Probation of Offenders Act and Other Laws.
- j) Furlough, Parole, Meaning Scope and Legal Provisions & Rules
- k) After Care and Rehabilitation Services
- 1) Role of NGO's in Supervision and Rehabilitation
- m) Difference between Institutional and Non-Institutional Form of Treatment.

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Course Title: ADVANCED FORENSIC MEDICINE AND TOXICOLOGY III SEMESTER Course Code: A3FSC103AT

(20+80=100)

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSE	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcome

After successfully completing this course students

CO 1. Will be well-equipped to tackle intricate forensic medicine and toxicology cases, combining their expertise in advanced analytical methods, interpretation, and expert testimony.

- CO 2. They will be prepared to contribute to forensic investigations, court proceedings, and public health initiatives, upholding the highest standards of professionalism, ethics, and scientific rigor in their practice.
- CO 3. Demonstrate an understanding of regulatory toxicology and its role in ensuring public safety and legal compliance.
- CO 4. Analyse and understand Advanced Techniques and Special Topics in Forensic Toxicology

Unit I:	Fundamentals of Forensic Medicine	15hours
	a) Introduction to Advanced Forensic Sciences	
	b) Procedures for Conducting Post-Mortem Examinations	
	c) Forensic Thanatology and Decomposition	
	d) Documentation and Evidence Collection during Autopsies	
	e) Interpretation and Reporting of Post-Mortem Findings	
Unit II:	Advanced Forensic Pathology and Death Investigation	15hours
	a) Forensic Histopathology and Death Investigation	
	b) Forensic Radiology and Imaging	
	c) Forensic Anthropology and Taphonomy	
	d) Forensic Entomotoxicology	
	e) Unusual and Challenging Forensic Pathology Cases	
Unit III:	Fundamentals and Advanced Forensic Toxicology	15hours
	a) Introduction to Toxicology	
	b) Pharmacokinetics and Drug Metabolism	
	c) Alcohol and Its Toxicological Effects	
	d) Poisons: Types, Mechanisms, and Forensic Investigation	
	e) Narcotics and Forensic Analysis of Designer Drugs and New Psychoactive	
	Substances	
	f) Toxicological Interpretation and Post-Mortem Redistribution	
	g) Toxicogenomics and Personalized Toxicology	
Unit IV:	Advanced Techniques and Special Topics in Forensic Toxicology	15hours

- a) Analytical Instrumentation in Forensic Toxicology
- b) Immunoassays and Bioanalytical Techniques
- c) High-Throughput Screening (HTS) in Toxicology
- d) Environmental Forensics and Pollution Analysis
- e) Regulatory Toxicology
- f) Forensic Nanotechnology and Nanotoxicology
- g) Forensic Botany and Palynology
- h) Chemical Warfare Agents and Terrorism Investigation
- i) Drug-Facilitated Crimes and Workplace Toxicology
- j) Advanced Topics in Forensic Toxicology

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Course Title: FORENSIC VICTIMOLOGY III SEMESTER

Course Code: A3FSC103BT

(20+80 = 100)

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSE	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

- CO 1. Are able to understand concept of Victimology, its nature and theories
- CO 2. Have general understanding of typology, victimity, victim profile and victim compensation
- CO 3. Are able to comprehend theories related to Victimology and assessing techniques
- CO 4. Have begun to think critically about providing justice to the victim under the purview of law

Unit I:	Foundations of Forensic Victimology	15hours	ĺ
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	a. Evolution of Victimology in Modern Criminology, Basic Concepts of	
	Victimology	
	b. Theoretical Perspectives: Beyond Routine Activity Theory, Lifestyle	
	Exposure, Fear of Crime Victim Precipitations.	
	c. Victim-Offender Overlap: Unraveling the Dynamics	
	d. Forensic Taphonomy: Linking Victim and Scene Analysis	
	e. Neurobiological Factors: Understanding Victim Responses to Trauma	
Unit II:	Advanced Victim Profiling Techniques	15hours
	a. Primary, Secondary & Tertiary Victimization.	
	b. Geographical Profiling: Spatial Behavior Analysis	
	c. Victim Personality Profiling: Beyond Typologies	
	d. Victim Socio-Demographics: Cultural and Socioeconomic Influences	
	e. Digital Footprints: Cyber Victimology and Online Behavior	
	f. Victimology of Serial Offenders: Patterns and Motivations	
Unit III:	Forensic Trauma Assessment	15hours
	a. Psychological Autopsy: Postmortem Victim Profiling	
	b. Trauma Analysis: Identifying Weaponry and Offender Characteristics	
	c. Post-Traumatic Stress Disorder (PTSD), Acute Stress Disorder (ASD)	
	d. Vicarious Trauma: Investigator and Professional Resilience	
	e. Interpersonal Violence: Domestic Abuse and Intimate Partner Homicide	
	f. Mass Disasters: Victim Identification Challenges and Techniques	
Unit IV:	Victimology in Legal Proceedings	15hours

- a. Expert Witness Testimony: Communicating Victim Behavior Analysis
- b. Trial Consulting: Analyzing Jury Perceptions of Victim Credibility
- c. False Memory Syndrome: Impact on Victim Testimony
- d. Sentencing Considerations: Balancing Justice and Victim Rights
- e. Victim Impact Statements: Efficacy and Ethical Implications
- f. Victim Assistance Criminological Perspective
- g. UN Declaration of Basic Principles of Justice for Victims of Crime & Abuse Power 1985
- h. Victim Offender Relationship
- Impact of Victimization Physical, Psychological, Financial Restorative Justice
- j. Victim Compensation Restitution Reparation
- k. Cyber Victimology, Positive Victimology and Clinical Victimology

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Course Title: FORENSIC PSYCHOLOGY (PRACTICALS) III SEMESTER

Course Code: A3FSC004P

(20+80 = 100)

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Practicals	04	8 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

- CO 1. Understand the role of psychology in the criminal justice system.
- CO 2. Learn about various psychological assessments and their applications in forensic contexts.

- CO 3. Study the principles and methods of offender profiling and understand the psychological factors influencing courtroom processes and decision-making.
- CO 4. Analyse on different types of Forensic Assessments
- 1. Criminal Profiling of Serial Offenders
- 2. Behavioral Analysis of Crime Scene Evidence
- 3. Offender Risk Assessment and Prediction of Recidivism
- 4. Psychological Autopsy: Investigating Equivocal Deaths
- 5. Assessment of Competency to Stand Trial
- 6. Detection of Deception: Polygraph and Cognitive Approaches
- 7. Forensic Assessment of Personality Disorders
- 8. Evaluating Criminal Responsibility: Insanity Defense Simulations
- 9. Post-Traumatic Stress Disorder (PTSD) in Victims and Offenders
- 10. Child Witness Testimony and Suggestibility
- 11. Psychological Support for Victims of Sexual Assault
- 12. Cognitive Interview Techniques for Eyewitnesses
- 13. Interrogation Techniques and False Confessions
- 14. Psychological Evaluation of Witness Credibility

Course Title: LOCAL INSTITUTIONS VISIT

Course Code: A3FSC005P

(50 marks

III SEMESTER

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Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Practicals	02	8 hrs	120 hrs	3 hrs/	Reports-	20 marks	50
					per	Presentation	ns-20 marks	
					Batch	Viva voce	e-10 marks	

Course outcomes

- CO 1. Are able to understand and use the field knowledge pertaining to different concepts in criminology and forensic science.
- CO 2. Have a general understanding of specified concepts students opt for, will get exposure to research methodology used in accomplishing the opted research topic.
- CO 3. Are able to comprehend different methods used for research work, recent trends in criminology and forensic science research.

CO 4. Have begun to think critically about problems of crime, new and advanced methods could be used in prevention and detection of crime, legal provisions for adopting the outcome of the research in crime investigation.

Unit I:

- 1) Visit to Prison Institution
- 2) Visit to Sate Home for Men
- 3) Visit to Sate Home for Women.
- 4) Visit to Observation Home.

Unit II:

- 1) Child Welfare Committee
- 2) Visit to Juvenile Home (Recreation)
- 3) Visit to Juvenile justice Board
- 4) Visit to Juvenile Special Home.

Unit III:

- 1) Visit to Court Proceeding
- 2) Visit to Civil Court.
- 3) Visit to Criminal Court.
- 4) Visit to Lokayukta Office.

Unit IV:

- 1) Visit to Local Police Station
- 2) Visit to S. P. Office.
- 3) Local Crime Record Bureau.
- 4) Visit to After-Care Services.
- 5) Visit to Hospital for Post-Mortem Cases.

*Note:

Attendance for the visit to all the institutions is compulsory.

At the end of the semester the students' are expected to submit a concise certified report with the details of their experiences and observations on each visit carried out.

Distribution of Marks

Local Institution Visit Report - - 20
Presentation - - 20
Viva Voce - - 10
Total - - 50

Course Title: INTERNSHIP III SEMESTER

Course Code: AF3SC005P

(50 marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Theory	02	8 hrs	120 hrs	3 hrs	Reports-2	20 marks	50
						Presentation	ns-20 marks	
						Viva voce	-10 marks	

Course outcomes

- CO 1. Are able to understand and use the field knowledge pertaining to different concepts in criminology and forensic science.
- CO 2. Have a general understanding of specified concepts students opt for, will get exposure to research methodology used in accomplishing the opted research topic.
- CO 3. Are able to comprehend different methods used for research work, recent trends in criminology and forensic science research.
- CO 4. Have begun to think critically about problems of crime, new and advanced methods could be used in prevention and detection of crime, legal provisions for adopting the outcome of the research in crime investigation.

This part of the programme is introduced to enable the students to utilize their vacation between the semesters productively and acquire practical skills on the classroom information provided. This component is to help them have direct hands on experience in the field concerning the related subject area.

The students will have to work in institutions like Forensic Labs, B.P.R & D., Police Stations, Women and Children Welfare Department, Police Training Centre or other institutions and NGOs, allied with Criminal Justice System (Subject to Permission Procured) during the vacation (after II semester examination). The student is expected to work closely with the workers of the institution and record their learning experiences and submit a weekly report to the Department. Towards the end of the IIIrd Semester the students shall have to submit an Internship Report on the institution they were placed in.

Distribution of Marks

Internship Report -- 20
Presentation -- 20
Viva Voce -- 10
Total -- 50

Course Title: ELEMENTS OF FORENSIC SCIENCE III SEMESTER

Course Code: A3FSC206T

(20+80 = 100)

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
OEC	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcome

- CO 1. Demonstrate a comprehensive understanding of forensic science techniques and methodologies.
- CO 2. They will be able to critically analyze and apply advanced techniques to effectively process and interpret forensic evidence in various criminal investigations.
- CO 3. Additionally, students will develop skills in utilizing cutting-edge technologies and approaches to address complex challenges in forensic analysis and contribute to the advancement of forensic science.
- CO 4. Able to analyze and understand Method of Investigation in different types of Scene of Crime

Unit I:	Introduction	15hours	1
			ı

	a) Meaning, Definition, Scope History and Development of Forensic Science	
	b) Pioneers in Forensic Science	
	c) Principles of Forensic Science	
	d) Functions of Forensic Science Laboratories- Central State, Regional, Mobile	
	e) Nature and Scope of question Documents	
	f) Class and Individual Characteristics of Handwriting & Signature	
Unit II:	Finger Prints & Foot Prints	15hours
	a) History, Meaning, Importance of Finger Print, Principles of Finger Print	
	b) Types of Finger Print Pattern, Ridge Characteristics	
	c) Primary Classification of Finger Print	
	d) Development of Finger Print	
	e) Foot Print- Meaning, Importance, Types, Development Method	
Unit III:	Body Fluids & Hair	15hours
	a) Forensic Importance of Blood-Collection & Preservation of Blood Evidence	
	b) Forensic Significance of Semen- Composition, Functions and Morphology -	
	Examination	
	Dammudon	
	c) Forensic Significance of Saliva- Sweat-Urine	
	c) Forensic Significance of Saliva- Sweat-Urine	
	 c) Forensic Significance of Saliva- Sweat-Urine d) DNA and its tests, Importance with body fluids e) Identification and trace Human & Animal Hair Examination 	
Unit IV:	c) Forensic Significance of Saliva- Sweat-Urine d) DNA and its tests, Importance with body fluids e) Identification and trace Human & Animal Hair Examination Crime Scene	15hours
Unit IV:	 c) Forensic Significance of Saliva- Sweat-Urine d) DNA and its tests, Importance with body fluids e) Identification and trace Human & Animal Hair Examination 	15hours
Unit IV:	c) Forensic Significance of Saliva- Sweat-Urine d) DNA and its tests, Importance with body fluids e) Identification and trace Human & Animal Hair Examination Crime Scene	15hours
Unit IV:	c) Forensic Significance of Saliva- Sweat-Urine d) DNA and its tests, Importance with body fluids e) Identification and trace Human & Animal Hair Examination Crime Scene a) Scene of Crime- Meaning, Concept, Types	15hours
Unit IV:	c) Forensic Significance of Saliva- Sweat-Urine d) DNA and its tests, Importance with body fluids e) Identification and trace Human & Animal Hair Examination Crime Scene a) Scene of Crime- Meaning, Concept, Types b) Method of Investigation in Scene of Crime	15hours
Unit IV:	c) Forensic Significance of Saliva- Sweat-Urine d) DNA and its tests, Importance with body fluids e) Identification and trace Human & Animal Hair Examination Crime Scene a) Scene of Crime- Meaning, Concept, Types b) Method of Investigation in Scene of Crime c) Physical Clues- Meaning & Importance	15hours

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Course Title: FORENSIC DOCUMENTS EXAMINATION IV SEMESTER

Course Code: A4FSC001T

(20+80 = 100 marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

- CO 1. Are able to understand an use the knowledge of forensic document in analyzing questioned documents, their application, classification and types of examination.
- CO 2. Have a general understanding of various types of documents and its general individual characteristics and procedure in handling forgery cases.
- CO 3. Are able to comprehend examination of type writers and procedures used, examination process of security documents, analyzing its nature and features.
- CO 4. Have begun to think critically about advancements in forensic document examination recent trends and techniques used. The role of forensic document examiner in providing acceptable report of document analysis.

Unit I:	Introduction	15hours					
	a) Definition, Types, Scope & Application in Crime Investigation						
	b) Various Indian Laws with reference to Bharatiya Nyaya Sanhita & Bharatiya						
	Sakshya Adhiniyam.						
	c) Reproduction of Documents						
	d) Nature & Problems of Forensic Document Examination.						
	e) Preservation, Packing & Marking of Documents.						
	f) Development & Classification of Handwritings and Classification of Forensic						
	Documents.						
	g) The Law and Legal Procedure in Disputed Document Cases.						
Unit II:	Principles of Handwriting Examination	15hours					
	a) Various Writing Features, Terminologies, Definitions, General Characteristics,						
	Individual Characteristics of Handwriting.						
	b) Variations- Natural & Disguised, Principles of Handwriting Identifications,						
	Comparison Process.						
	c) Preliminary Examination of Documents, Effect of Age, Illness, Posture,						
	Emotions, Paper, Ink Analysis and Writing Instrument on Handwriting.						
	d) Graphology & The Identification of Handwriting						
Unit III:	Document Forgery & Alterations	15hours					
	a) Examination of Signatures & Built Up Document. Identification of Writer of						
	Forged Writings /Signatures.						
	b) Importance of Tremors in Identification.						
	c) Examination of Secret Writings & Charred Documents and Identification of						
	Anonymous Disguised Writings Letter and Its Writer.						
	d) Detection & Decipherment of Alterations & Erasures Including Additions,						
	Overwriting, Obliterations.						

Unit IV:	Advances in Documents Examination & Quality Assurances	15hours
	a) Advances in Forensic Document Examination, Introduction to Computer	
	Forensics, e-Document and Digital Signatures.	
	b) Final Examination and Report Writing, Opinion Writing and Writing of Reasons	
	for Opinion, Importance of No Opinion or Qualified Opinions	
	c) Marking of Photographs and Their Presentation, Preparation of Juxtapose Charts	
	in Support of Reasons and Case Studies.	
	d) Examination of Credit Cards & Similar Materials.	

- 1. Davin, E. (1997). Questioned Documents: Scientific Examination. Taylor & Francis.
- 2. Harrison, W. R. (2001). Suspect Documents: Their Scientific Examination (Indian Reprint). Universal Law Pub.
- 3. Kurtz, S. (1983). Graphotypes: A New Plant on Handwriting Analysis. Crown Pub. Inc.
- 4. Lerinson, J. (2001). Questioned Documents. Academic Press.
- 5. Lotia, M. (n.d.). All About Modern Printers: Introduction. BPB Publication.
- 6. McNichol, A., & Nelson, J. A. (1994). *Handwriting Analysis: Putting It to Work for You*. Jaico Books.
- 7. Morris, R. N. (2001). Forensic Handwriting Identification. Academic Press.
- 8. Osborn, A. S. (1998). Questioned Documents (2nd ed.). Universal Law Pub.
- 9. Osborn, A. S. (1998). The Problem of Proof (2nd ed.). Universal Law Pub.
- 10. Thomas, C. C. (1971). I.S.Q.D. *Identification System for Questioned Documents*. Billy Prior Bates.

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https://dokumen.pub/qdownload/scientific-examination-of-questioned-documents-9780849320446-0-8493-2044-5.html.

Course Title: CRIME AGAINST WOMEN & CHILDREN IV SEMESTER

Course Code: A4FSC002T

(20+80=100)

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

- CO 1. Are able to understand status of women and trends in crime against women in present scenario.
- CO 2. Have a general understanding of different type of crimes against women.
- CO 3.Are able to comprehend laws related to women protection, crime against children, abuses and trafficking.
- CO 4. Have begun to think critically about children legal provisions, and preventive measures for crime against children and women.

Unit I:	Introduction to Crime against Women & Children	15hours
	a) Status of Women under Indian context	
	b) Current Crime Trend Against Women in India and Across the Globe.	
	c) Current Crime Trend Against Children in India and Across the Globe.	
	d) Antecedents of Crimes Against Women.	
	e) Nature & Causes of Crimes Against Children.	

Unit II:	Crime against Women a) Abuse, Torture, Sexual, Psychological, Financial, Verbal Threats b) Social Crimes Against Women – Female Feticide& Infanticide, Child Marriage, Dowry Death, Sati c) Domestic Violence, Illegal Termination of Pregnancy, Acid Attacks, Honour Killing d) Sexual Offences Against Women – Rape, Molestation, Incest, Sexual Harassment at Work, Pornography, e) Prostitution, Custodial Gang rape Unnatural Offence f) Other Offences – Illegal Human Trafficking, Forced Prostitution, Stalking, Kidnapping &Abduction, g) Cyber Crimes Against Women Perpetuation.	15hours
Unit III:	Social Legislations Relating to Women	15hours
	a) Maternal Termination Pregnancy Act, Prenatal Diagnostic Law.	
	b) Prevention of Commission of Sati Act, Prevention of Immoral Trafficking Act.	
	c) Dowry Prohibition Act, Prohibition of Indecent Representation of Women.d) The Sexual Harassment of Women at Workplace (Prevention, Prohibition and	
	d) The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013	
	e) Protection of Women from Domestic Violence Act, 2005 and Women-Related	

Unit IV:	Issues of Children in India	15hours
	a) Child Abuse – Physical, Emotional, Psychological and Sexual Abuse	
	b) Child Labor & Street Offences – Begging, Forceful Labor on Streets and Other	
	Industries,	
	Juvenile Gang, Institutions, Drug Pedaling and Boot Legging etc.	
	c) Trafficking, Forced Prostitution and Engaging in Child Pornography.	
	d) Juvenile Justice Care and Protection ACT (JJACT) and POCSO Act	
	e) Role of Governmental and Non-governmental Organizations/ Community	
	Participation	
	f) Role of Criminal Justice System in Prevention of Crime Against Children	
	g) Child Protection- Rights of Child, International Law on the Rights of Child,	
	Constitutional Provisions of Protection for Child, BharatiyaNyayaSanhita and	
	Child	

- 1. Chawla, M. (2006). Gender Justice. Deep and Deep Publication Pvt Ltd.
- 2. Goal, A. (2004). *Violence Protective Measures for Women Development and Empowerment*. Deep and Deep Publications Pvt Ltd.
- 3. International Solidarity Network. (2006). Knowing Our Rights. Kali for Women.
- 4. Kaushik, P. (2007). Womens Right. Bookwell Publication.
- 5. Lyman, M. D. (1997). Organized Crime. Prentice Hall.
- 6. Mishra, P. (2007). Domestic Violence Against Women. Deep and Deep Publication Pvt Ltd.
- 7. Nash, J. R. (1992). World Encyclopaedia of Organized Crime. Paragon House.
- 8. Pace, D. F. (1975). Organized Crime: Concept and Control. Prentice Hall.
- 9. Paranjape, N. V. (2005). Criminology & Penology. Central Law Publications.
- Rao, N. (2008). Good Women Do Not Inherit Land. Social Science Press and Orient Black Swan.

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Course Title: FORENSIC BALLISTICS IV SEMESTER

Course Code: A4FSC003T

(20+80 = 100)

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

- CO 1.Are able to understand and analyze the knowledge of ballistics in identifying criminal, components of firearms and its fictional aspects.
 - CO 2. Have a general understanding of different types of ballistics, ammunitions used, and Types of propellants and its compositions.
 - CO 3. Are able to comprehend forms of ballistics, analytical patterns of ballistics and its effects.
- CO 4. Have begun to think critically about various types of marks produced by firearms, its identification and classification, different investigative techniques used for firearm crime analysis.

Unit I:	Classification & Characteristics of Ballistics	15hours
	a) History & Development, Classification of Firearms	
	b) Various Components of Small Arms, Different Automatic Mechanisms used in	
	Small Firearms.	
	c) Projectile, Velocity Determination	
	d) Identification of Origin	

Unit II:	Ammunition & Identification	15hours
	a) Types of Ammunitions, Classifications, Constructional Features of Different	
	Types of Cartridges, Types of Primer and Priming Composition.	
	b) Propellants and Their Composition	
	c) Various Types of Bullets and Compositional Aspects.	
	d) Manufacture of Firearms, Various Processes Associated with Manufacture of	
	Ammunitions.	
Unit III:	Internal, Intermediate and External Ballistics	15hours
	a) Ballistics – Definition of Internal, Intermediate and External	
	b) Internal Ballistics – Definition, Ignition of Propellants, Factors Affecting Internal	
	Ballistics, Lock Time, Ignition Time, Erosion, Corrosion and Gas Cutting, Theory	
	of Recoil.	
	c) Intermediate Ballistics - Definitions, Effects on the Motion of Projectile and	
	Firearms, Gas Flow Filed Near the Muzzle Flash, Blast, and Silencer.	
	d) External Ballistics	

Unit IV:	Tool marks and Investigation of Ballistics	15hours
	Tool marks - Types of Tool Marks, Compressions, Striated, Ejective Marks,	
	Individual; and Pertinent Characteristics.	
	Principles and Practice of Identification of Firearms, Ammunition and Their	
	Components, Types of Marks Produced During the Firing Process, Measurement of	
	Rifling Details, Process of Matching and Non-Matching Characteristics of	
	Evidence and Test Cartridge Cases and Bullets, Writing of Reports, Effect of	
	Human Decomposition on Bullet Striations.	
	Determination of Range of Firing, Burning, Scorching, Blackening, Tattooing,	
	Gunshot Residue Distribution, Determinants of Range of Firing, Characteristics of	
	the Shot, Factors Affecting these Phenomena, IR Photography of Tattooing Around	
	Gunshot Holes.	
	Various Types of Visible/Invisible Physical Evidence Available in Crime Involving	
	Firearms. Photography/ Videography/Sketching of Crime Scene; Location,	
	Documentation, Collection, Preservation and Forwarding of Physical Evidence,	
	Maintaining the Authenticity and Integrity of Physical Evidence	

- 1. Burrard. (1956). The Identification of Firearms and Forensic Ballistics. Herbert Jenkins.
- 2. Ezell. (1988). Smallarm Today. Stackpole Books.
- 3. Gunther, & Gunther. (1935). The Identification of Firearms. New York.
- 4. Heard, B. J. (1997). Handbook of Firearms and Ballistics. John Wiley.
- 5. Hogg, I. V. (1982). *The Cartridge Guide: A Smallarms Ammunition Identification Manual.*The Stackpole Publishing Co.

- 6. Muller & Olson. (1968). Smallarms Lexicon & Encyclopaedia. Shooter's Bible Inc.
- 7. Nonte, Jr. (1973). Firearms Encyclopaedia. Wolfe Publishing Limited.
- 8. Sharma, B. R. (2011). Firearms in Criminal Investigation & Trials (4th ed.). Universal Law Publishing Co Pvt Ltd.
- 9. Smith & Smith. (1972). Book of Rifles. Stackpole Books.
- 10. Whelen. (1946). *Smallarms Design and Ballistics (Vol. II)*. Smallarms Technical Publishing Company.

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Course Title: CRIME SCENE MANAGEMENT IV SEMESTER

Course Code: A4FSC104AT

(20+80 = 100)

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSE	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

- CO 1. Are able to understand and use the knowledge of police investigation
- CO 2. Have a general understanding of crime scene management, equipment needed and laws
- CO 3. Have begun to think crime scene sketching, and evidence management
- CO 4. Are able to understand Measurement and marking of evidence and safeguarding crime scene

Unit I:	Introductory Aspects of Crime Scene Management	15hours
	a. Ethics & the role of the Crime Scene Investigator	
	b. Role of the Crime Scene Investigator	
	c. Responsibilities, Before, During and After the Crime Scene.	
	d. Proper Documentation	
	e. Laws Related to Crime Scene Investigation	
Unit II:	Crime Scene Management Methods and Equipment	15hours

	a. Crime Scene Management Methods & Crime Scene Equipment	
	b. Initial Response and Arrival	
	c. Scene Security/Integrity	
	d. Briefing and Processing Steps and Timelines	
	Crime Scene Equipment	
Unit III:	Crime Scene Sketching Methods	15hours
	a. Crime Scene Sketching, Measurements &Note taking	
	b. Minimum Sketch Requirements	
	c. Bird's Eye View Sketch	
	d. Exploded Sketch	
	e. Vertical Surface Sketch	
Unit IV:	Crime Scene Measurement and Evidence Management	15hours
Unit IV:	Crime Scene Measurement and Evidence Management a. Measurement Equipment's	15hours
Unit IV:		15hours
Unit IV:	a. Measurement Equipment's	15hours
Unit IV:	a. Measurement Equipment's b. Documentation Methods	15hours
Unit IV:	a. Measurement Equipment's b. Documentation Methods c. Baseline Measurements	15hours
Unit IV:	 a. Measurement Equipment's b. Documentation Methods c. Baseline Measurements d. Triangulation Measurements 	15hours
Unit IV:	 a. Measurement Equipment's b. Documentation Methods c. Baseline Measurements d. Triangulation Measurements e. Polar Coordinates Measurements 	15hours
Unit IV:	 a. Measurement Equipment's b. Documentation Methods c. Baseline Measurements d. Triangulation Measurements e. Polar Coordinates Measurements f. Evidence Management in Crime Scene, Latent Print Processing 	15hours
Unit IV:	 a. Measurement Equipment's b. Documentation Methods c. Baseline Measurements d. Triangulation Measurements e. Polar Coordinates Measurements f. Evidence Management in Crime Scene, Latent Print Processing g. Biological Evidence at the Crime Scene 	15hours

- 1. Fisher, B. A. (2003). Techniques of Crime Scene Investigation. CRC Press.
- 2. Gardner, R. M., & Krouskup, D. (2018). *Practical Crime Scene Processing and Investigation*. CRC Press.
- 3. Hargrove, M. (2011). Forensic Science and The Law: A Forensic Scientist's Guide to The Law. New York: Wiley.
- 4. Kuck, R. A. (2015). Crime Scene Investigation: A Guide for Law Enforcement (2nd Ed.). Jones & Bartlett Learning.
- 5. Miller, M. T., & Massey, P. (2018). The Crime Scene: A Visual Guide. Academic Press.

- 6. Mozayani, A., & Parish-Fisher, C. (Eds.). (2017). Forensic Evidence Management: From The Crime Scene to The Courtroom. CRC Press.
- 7. Pepper, I. (2010). Crime Scene Investigation: Methods and Procedures: Methods and Procedures. McGraw-Hill Education (UK).
- 8. Roldan, C., & Bonet, A. (2019). Practical Crime Scene Processing and Investigation. Routledge.
- 9. Siegel, J. A., & Fisher, B. A. J. (2016). Essentials of Forensic Science. Academic Press.
- 10. Turk, J. (2018). Crime Scene Management: A Forensic Approach. Academic Press.

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https://nij.ojp.gov/topics/articles/crime-scene-investigation-guides-law-enforcement.

Course Title: INVESTIGATIVE JOURNALISM IV SEMESTER

Course Code: A4FSC104BT

(20+80 = 100)

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSE	Theory	04	4 hrs	60 hrs	3 hrs	20	80	100

Course outcomes

- CO 1. Are able to understand the investigative journalism, various forms of media, and forensic journalism.
- CO 2. Have a general understanding regarding theories of reporting, types and objectives.
- CO 3. Are able to comprehend types of investigation, policy related to criminal justice, and international perspective of investigative journalism.
- CO 4. Have begun to think critically about investigating journalism, its role in identification of culprit, preventive measures of criminal acts.

Unit I:	Introduction	15hours
	a) Definition, Nature and Scope of Journalism	
	b) Fundamentals of Reporting, Editing and Writing Policies and Legislations	
	Relating to Journalism	
	c) Various Forms of Media- Print, Electronic (broadcast) Media - Radio,	
	Television, Internet	
	d) Forensic Journalism: Scene of Crime, Clues of Crime, Correlate with Other	
	Evidences, Drawing Conclusion.	
Unit II:	Theories of Reporting	15hours
	a) Report Writing- Techniques and Styles of Writing for Various Types of Media,	
	Editing and Concise Writing.	
	b) Objectivity in Reporting,	
	c) Interpretative Reporting,	
	d) Investigative Reporting Advocacy and	
	e) Development Reporting.	
II:4 III-	Investigation and the Criminal Instice Process	15h o 2229
Unit III:	Investigation and the Criminal Justice Process	15hours
	a) Investigating the Politicians - The Law to Legislative Coverage and Privilege	
	b) Investigating the Enforcers	
	c) Investigating the Departmental Mismanagement in Recruitment, Training, Promotions and Transfers	
	d) Investigating the Illegal Arrests and Detentions	
	e) Practice of Human Rights Violations	
	f) Investigating the Judicial System- The Relating to Contempt and Defamation	
	g) Investigating the Correctional System- Existing Prison Culture, Administration,	
	Riots, Prisoner's Unrest, Corruption in Prison and Prison Offences.	
l		
Unit IV:	International Models on Investigative Journalism and Crime Reporting	15hours

- a) Photography- Importance of Photography in Crime Investigation
- b) Documents -Primary Documents, Secondary Documents
- c) Evidences- Primary Evidence and Secondary Evidence
- d) Bugging- Types of Cameras, Positioning and Sound Receivers and Recording
- e) Crime Analysis-Mapping, Drawing Conclusions (International models on investigations and its application has to be explained with already unraveled actual cases)
- f) Functions of Crime Reporter- Reporters Contacts, Networks of Investigator Journalists, Maintaining, Rewarding and Handling Sources; Ethical Issues in Handling Sources.
- g) Searching Evidence, Interviewing Experts and Victims, Evaluating Sources, Weighing Evidences, Verifying Facts and Reporting.
- h) Crime Reporting Types- Crime Reporting in Print Media and Electronic Media
- Investigative Reporting, Court Procedures Reporting, Speedy Reporting, Interpretative Reporting, Depth Reporting.

- 1. Banerjee, I. (2002). The Locals Strike Back? Media Globalization and Localization in The New Asian Television Landscape. Gazette: The International Journal for Communication Studies.
- 2. Bhatt, S. C. (1996). Satellite Invasion of India. Gyan Publishing House.
- 3. Campbell, L. R., & Wolseley, R. E. (1961). How To Report and Write the News. Prentice-Hall.
- 4. Charmley, M. V. (1975). Reporting.
- 5. Jewkes, Y. (2004). Media and Crime (2nd Ed.). SAGE Publications Ltd.
- 6. McDougal, C. D. (1982). Interpretative Reporting.
- 7. Muraskin, R. (2006). Crime and Media: Headlines Vs Reality. Prentice Hall.
- 8. Ravindran, R. K. (2005). Handbook of Reporting and Editing. Anmol Publications Pvt. Ltd.
- 9. Srivastava, K. M. (1991). News Reporting and Editing. Sterling Publishers.
- 10. Surrette, R. (2011). *Media, Crime, and Criminal Justice: Images, Realities, and Policies.* Wadsworth Publishing.

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Course Title:FORENSIC DOCUMENT EXAMINATION (PRACTICALS) IV SEMESTER Course Code: A4FSC005P

(20+80=100)

marks)

Type	Theory/	Credits	Instruction	Total No.	Duration	Formative	Summative	Total
of	Practical		hour/ per	of	of Exam	Assessment	Assessment	
Course			weak	lectures/				
				Hours				
				Semesters				
DSC	Practicals	04	8 hrs	120 hrs	3 hrs	20	80	100

Course outcomes

- CO 1. Are able to understand the Forensic document examination. Also describes classification, variation, nature and problems of document examination and Handling, preservation and marking of documents.
- CO 2. Are able to comprehend examination of writing features, their estimation, general characteristics, individual characteristics, ethnic and gender variability of handwriting, various types of forgeries and their detection.
- CO 3. Are able to understand examination of type writers and procedures used, examination process of security features of currency notes passport and credit cards
- CO 4. Are able to understand Study of fundamental divergences
 - 1. Handling, preservation and marking of documents,
 - 2. Forensic identification of class and individual characteristics of handwriting and typewritten scripts
 - 3. Identification of Handwriting General Characteristics and ethnic and gender variability
 - 4. Study of natural variations and fundamental divergences in handwriting.
 - 5. Detect and decipher alterations in a document
 - 6. Decipher secret writings indentations and charred documents
 - 7. Study of fundamental divergences.
 - 8. Comparison of handwritings &Study of disguise in handwriting.
 - 9. Analysis of signature forgery
 - 10. Detection of Simulated forgery & Detection of traced forgery.
 - 11. Comparison of Typewritten scripts
 - 12. Examination security features of Currency note passport and credit cards under Visual Spectral Comparator(VSC)

13. Perform chromatographic examination of ink.

Course Title: DISSERTATION IV SEMESTER

Course Code: A4FSC006P

(20+80 = 100)

marks)

Type	Theory/	Credit	Instructio	Total No.	Duratio	Formative	Summative	Tota
of	Practical	s	n hour/	of	n of	Assessmen	Assessmen	1

Cours			per weak	lectures/	Exam	t	t	
e				Hours				
				Semester				
				s				
DSC	Practicals/	04	8 hrs	120hrs	3 hrs	20	80	100
	Dissertatio							
	n							

Course outcomes

- CO 1. After successfully completing this course students
- CO 2. Are able to understand and use the field knowledge pertaining to different concepts in Criminology and Forensic Science.
- CO 3. Have a general understanding of specified concepts students opt for, will get exposure to research methodology used in accomplishing the opted research topic.
- CO 4. Are able to comprehend different methods used for research work, recent trends in criminology and forensic science research.

For Dissertation, each student shall select one research topic compulsory with the consultation of your concerned faculty.

This Dissertation shall carry 100 marks and 4 credits, 80 marks for Dissertation and 20 marks for two Internal Tests and Assignments. The completed work shall be submitted to the chairman through the supervisor at least two weeks prior the concluding of IV Semester.

Distribution of Marks

<u>Formative Assessment</u>		Summative Assessm	<u>ient</u>
1 st Internals Test	= 10 Marks	Dissertation Report	= 30
2 nd Internals Test	= 10 Marks	Presentation	= 30
Total Marks	= 20 Marks	Viva-Voce	= 20

Total Marks = 80 Marks

Model Question Paper M.Sc in Forensic Science &Criminology

Max Marks 80) (5x16=80)

- a) Answer any Five Questionsb) All Questions Carries Equal Marks
- 1. A

OR

В

2.	A
	OR
	В
3.	A
	OR
	В
4.	A
	OR
	В
5.	Answer any Four from the following (Short note)
	A
	В
	C
	D
	F
	G