



Gyanmanjari
Innovative University

Course Syllabus
Gyanmanjari Science College
Semester-3(M.Sc)

Subject: Practicals-MSCF13518

Type of course: Major

Prerequisite: Basic knowledge of instrumentation of chemistry, practical skills of

Forensic anthropology, Forensic medicine and forensic psychology.

Rationale: Allowing them to develop the necessary technical skills, critical thinking abilities, and confidence to effectively analyze evidence and contribute to criminal investigations as future forensic scientists; essentially bridging the gap between classroom learning and professional practice in a controlled environment.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks					Total Marks
CI	T	P	C	Theory Marks		Practical Marks		CA	
				ESE	MSE	V	P	ALA	
0	0	12	6	00	00	40	80	30	150

Legends: CI-Class Room Instructions; T – Tutorial; P - Practical; C – Credit; ESE - End Semester Examination; MSE- Mid Semester Examination; V – Viva; CA - Continuous Assessment; ALA- Active Learning Activities.

Continuous Assessment:

Sr. No	Active Learning Activities	Marks
1.	JOURNAL Unit wise practical will be given by faculty and students will prepare a journal for the practical.	30
Total		30



List of Practical:

Sr. No.	Descriptions	Hrs
1.	Determination of Age from Skull Sutures.	8
2.	Analyze the case study of age estimation from human skeletal remains using cranial suture closure and epiphyseal union to determine the age at death.	4
3.	Determination of Age from Teeth.	8
4.	Estimation of Stature using Long Bones.	6
5.	Determination of Sex from Pelvis.	8
6.	Determination of Sex from Skull.	8
7.	Recording of Bite marks by Photography & Casting.	6
8.	Draw and Label the Bones of Human Body.	6
9.	Identification of various bones (appendicular, Pelvic and skull bones).	6
10.	To perform comparative study between human and animal skeleton system	4
11.	Estimation of height using long bones	6
12.	To record and study the Bertillonage system.	6
13.	Determination of Age and Sex of a Person from Long Bones.	8
14.	Examine the case study of sex determination using pelvic bone features, focusing on distinguishing anatomical traits between male and female.	4
15.	To study and classify different types of wounds/injuries.	6
16.	To prepare an eruption chart of permanent and temporary dentition.	6
17.	To study immediate, early and late changes after death.	6
18.	To study the significance of Gustafson's method.	4
19.	Evaluate the case study of psychological profiling in homicide investigation, highlighting behavioral indicators that assisted in suspect identification.	4
20.	Conduction of Personality Test such as D.A.P. and H.T.P.	6



21.	Personal identification using lip prints	6
22.	To prepare report on relationship between mental disorders and forensic Psychology.	6
23.	To study a criminal case in which hypnosis was used as a means to detect deception	6
24.	Interpret the case study of a false confession during police interrogation, emphasizing the psychological effects of coercive techniques on suspects.	6
25.	To prepare a case report on thematic appreciation test	6
26.	To prepare a case report on Minnesota multiphasic personality inventory test.	6
27.	Psychological profiling of an offender	6
28.	Investigate the case study of time since death estimation in medico-legal autopsy by assessing postmortem changes like rigor mortis, liver mortis, and algor mortis.	6
29.	Study of antisocial personality disorder	6
30.	To cite a criminal case in which narco analysis was used as a means to detect deception.	6
TOTAL		180

Suggested Specification table with Marks (Theory):60

Distribution of Theory Marks (Revised Bloom's Taxonomy)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage	20%	40%	30%	10%	-	-

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.



Instructional Method:

The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

From the content 10% topics are suggested for flipped mode instruction.

Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses, Virtual Laboratory

The internal evaluation will be done on the basis of Active Learning Assignment

Practical/Viva examination will be conducted at the end of semester for evaluation of performance of students in laboratory.

Reference Books:

- 1) The Human Bone Manual by Tim D. White and Pieter A. Folkens
- 2) Forensic Psychology: Crime, Justice, Law, Interventions (2nd Ed.) – by Graham M. Davies and Anthony R. Beech
- 3) Simpson's Forensic Medicine (14th Ed.) – by Jason Payne-James, Richard Jones, Steven B. Karch, and John Manlove

