INTEGRAL UNIVERSITY, LUCKNOW

INTEGRAL INSTITUTE OF ALLIED HEALTH SCIENCES

DEPARTMENT OF PARAMEDICAL SCIENCES

MASTERS OF SCIENCE IN FORENSIC SCIENCE

(M.Sc.FS)

SYLLABUS AND EVALUATION SCHEME

YEAR/ SEMESTER

I/I & I/II

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PEOs-POs-PSOs

Integral University, Lucknow
Department of Paramedical Sciences
Study and Evaluation Scheme

Program: M.Sc. FS Semester-I

S.N.	Course code	Course Title	Type of Paper	Period Per hr./week/Sem			Evaluation Scheme				Subtotal	Credit	Total Credits
				L	T	P	CT	TA	Total	ESE			
THEORIES													
1.	FS401	Crime Scene Investigation & Law	Core	3	1	0	40	20	60	40	100	3:1:0	4
2.	FS402	Forensic Photography	Core	2	1	0	40	20	60	40	100	2:1:0	3
3.	FS403	Biochemical & Analytical Techniques	Core	3	1	0	40	20	60	40	100	3:1:0	4
4.	FS404	Forensic Botany & Entomology	Core	3	1	0	40	20	60	40	100	3:1:0	4
5	FS405	Recent Advancement in Forensic Science	Core	2	1	0	40	20	60	40	100	2:1:0	3
PRACTICAL													
1.	FS406	Crime Scene Investigation- LAB	Core	0	0	4	40	20	60	40	100	0:0:2	2
2.	FS407	Forensic Photography-LAB	Core	0	0	2	40	20	60	40	100	0:0:1	1
3.	FS408	Forensic Botany & Entomology-LAB	Core	0	0	4	40	20	60	40	100	0:0:2	2
4.	FS409	Seminars, Journal Club and Group Discussions	Core	0	2	0	50	50	100	00	100	0:0:2	2
Total				**13**	**7**	**10**	**370**	**210**	**580**	**320**	**900**	**25**	**25**

S.N.	Course code	Course Title	Type of Paper	Attributes							United Nation Sustainable Development Goal (SDGs)
				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
THEORIES											
1.	FS401	Crime Scene Investigation & Law	Core	√	√	√			√	√	3,4
2.	FS402	Forensic Photography	Core	√	√	√			√	√	3,4
3.	FS403	Biochemical & Analytical Techniques	Core	√	√	√			√	√	3,4
4.	FS404	Forensic Botany & Entomology	Core	√	√	√			√	√	3,4
5	FS405	Recent Advancement in Forensic Science	Core	√	√	√			√	√	3,4
PRACTICAL											
1.	FS406	Crime Scene Investigation- LAB	Core	√	√	√			√	√	3,4
2.	FS407	Forensic Photography-LAB	Core	√	√	√			√	√	3,4
3.	FS408	Forensic Botany & Entomology-LAB	Core	√	√	√			√	√	3,4
4.	FS409	Seminars, Journal Club and Group Discussions	Core	√	√	√			√	√	3,4

L: Lecture **T:** Tutorials **P:** Practical **CT:** Class Test **TA:** Teacher Assessment **ESE:** End Semester Examination,
AE: Ability enhancement, DSE-Discipline Specific Elective, **Sessional Total:** Class Test +Teacher Assessment **Subject Total:** Sessional Total+ End Semester Examination (ESE)

Integral University, Lucknow
Department of Paramedical Sciences
Study and Evaluation Scheme

Program: M.Sc. F.S. Semester-II

S. N.	Course code	Course Title	Type of Paper	Period hr./week/Sem			Per	Evaluation Scheme			Subtotal	Credit	Total Credits
				L	T	P	CT	TA	Total	ESE			
THEORIES													
1.	FS410	Dermatoglyphics & Impressions	Core	2	1	0	40	20	60	40	100	2:1:0	3
2.	FS411	Questioned Documents	Core	3	1	0	40	20	60	40	100	3:1:0	4
3.	FS412	Forensic Chemistry & Explosive	Core	3	1	0	40	20	60	40	100	3:1:0	4
4.	FS413	Forensic Medicine &Toxicology	Core	3	1	0	40	20	60	40	100	3:1:0	4
5.	FS414	Cyber Forensic	Core	2	1	0	40	20	60	40	100	2:1:0	3
6.	FS415	Speaker Identification &Voice Analysis	Core	2	1	0	40	20	60	40	100	2:1:0	3
PRACTICAL													
1.	FS416	Dermatoglyphics & Impressions- Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
2.	FS417	Questioned Documents- Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
3.	FS428	Forensic Chemistry & Explosive- Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
4.	FS419	Forensic Medicine &Toxicology- Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
5.	FS420	Cyber Forensic – Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
Total				**15**	**06**	**10**	**440**	**220**	**660**	**440**	**1100**	**26**	**26**

S. N.	Course code	Course Title	Type of Paper	Attributes							United Nation Sustainable Development Goal (SDGs)
				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment &Sustainability	Human Value	Professional Ethics	
THEORIES											
1.	FS410	Dermatoglyphics & Impressions	Core	√	√	√			√	√	3,4
2.	FS411	Questioned Documents	Core	√	√	√			√	√	3,4
3.	FS412	Forensic Chemistry & Explosive	Core	√	√	√			√	√	3,4
4.	FS413	Forensic Medicine &Toxicology	Core	√	√	√			√	√	3,4
5.	FS414	Cyber Forensic	Core	√	√	√			√	√	3,4
6.	FS415	Speaker Identification &Voice Analysis	Core	√	√	√			√	√	3,4
PRACTICAL											
1.	FS416	Dermatoglyphics & Impressions- Lab	Core	√	√	√			√	√	3,4
2.	FS417	Questioned Documents- Lab	Core	√	√	√			√	√	3,4
3.	FS428	Forensic Chemistry & Explosive- Lab	Core	√	√	√			√	√	3,4
4.	FS419	Forensic Medicine &Toxicology- Lab	Core	√	√	√			√	√	3,4
5.	FS420	Cyber Forensic- Lab	Core	√	√	√			√	√	3,4

L: Lecture **T:** Tutorials **P:** Practical **CT:** Class Test **TA:** Teacher Assessment **ESE:** End Semester Examination,
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MASTERS OF SCIENCE IN FORENSIC SCIENCE
(M.Sc. FS)

Program Educational Outcomes
(PEOs)

Program Educational Outcomes (PEOs)

Program Educational Objectives (PEOs) are statements that describe the expected accomplishments and achievements of post-graduates of M.Sc. in Forensic Science program. These Program Educational Objectives aim to prepare M.Sc. Forensic Science students for successful careers in the field and equip them with the skills and knowledge necessary to make meaningful contributions to society through the application of forensic science principles and techniques. The PEO's of the M.Sc. Forensic Science program are as follows and the post-graduates of the Integral University forensic science program will be expected to:

PEO1:	Upon completion of the M.Sc. in Forensic Science program, students will demonstrate a strong foundation in the theoretical and practical aspects of forensic science techniques, including crime scene investigation, evidence collection, analysis, and preservation. They will possess the necessary expertise to contribute effectively to the field of forensic science in various professional settings.
PEO2:	Post-graduates in forensic science will be equipped with the ability to apply advanced analytical methods and cutting-edge technologies used in forensic laboratories. They will be proficient in interpreting complex scientific data, conducting forensic tests, and employing advanced instrumentation to analyze and interpret physical, chemical, and biological evidence.
PEO3:	Students will develop strong critical thinking and problem-solving skills essential for addressing intricate forensic cases. They will be able to assess, analyze, and draw logical conclusions from evidence, enabling them to make sound professional decisions and contribute to the resolution of complex legal and criminal investigations.
PEO4:	M.Sc. Forensic Science students will demonstrate a deep understanding of the ethical and legal aspects of their profession. They will adhere to the highest standards of professional conduct and integrity, ensuring confidentiality, accuracy, and objectivity in their work. Graduates will also recognize the importance of continuous professional development and lifelong learning.
PEO5:	Upon completing the program, graduates will possess excellent communication skills, both written and verbal, enabling them to present their findings, expert opinions, and conclusions effectively in courtrooms, investigative reports, and scientific publications. They will also be adept at collaborating with multidisciplinary teams, including law enforcement, legal professionals, and other forensic experts, to contribute to successful case resolutions.

MASTERS OF SCIENCE IN FORENSIC SCIENCE
(M.Sc. FS)

PROGRAMME OUTCOMES
(POs)

MASTERS OF SCIENCE IN FORENSIC SCIENCE (M.Sc. FS)
PROGRAMME OUTCOMES (POs)

PROGRAMME OUTCOMES (POs) POs and its Attributes: -

Program Outcomes (POs) outline the knowledge, skills, and attitudes students should acquire by completing their M.Sc. in Forensic Science program. These outcomes aim to equip graduates with diverse skills, deep knowledge, and ethical values for professional careers and meaningful contributions to the forensic science field. The following 12 POs have been chosen by the Department of Paramedical Sciences Integral University. The M.Sc. Forensic Science Program curriculum at Integral University has been designed to fully meet all the 12 Program Outcomes:

PO-1:	Demonstrate a comprehensive understanding of the fundamental principles, theories, and concepts in forensic science, including crime scene investigation, forensic analysis techniques, and the legal framework governing forensic procedures.
PO-2:	Acquire the ability to collect, document, and preserve physical, chemical, and biological evidence at crime scenes while maintaining chain of custody and adhering to proper handling protocols methodically and accurately.
PO-3:	Exhibit proficiency in utilizing advanced forensic laboratory instrumentation and techniques to analyze and interpret evidence, such as fingerprint analysis, DNA profiling, ballistics, toxicology, and digital forensics.
PO-4:	Apply scientific methods and critical thinking skills to conduct systematic and rigorous investigations, formulate hypotheses, design experiments, and draw valid conclusions based on forensic evidence.
PO-5:	Interpret complex forensic data and present findings in a clear, precise, and scientifically sound manner, both in written reports and oral presentations, to facilitate effective communication with legal professionals and other stakeholders.
PO-6:	Demonstrate an understanding of the legal and ethical aspects of forensic science, including the rights and responsibilities of forensic scientists, the admissibility of evidence in court, and the importance of maintaining integrity and objectivity in their work.
PO-7:	Analyze and reconstruct crime scenes, reconstruct events, and draw conclusions based on the analysis of physical evidence, contributing to the resolution of criminal investigations and legal proceedings.
PO-8:	Implement quality assurance and quality control measures in forensic laboratory practices to ensure accuracy, reliability, and reproducibility of test results, adhering to international standards and best practices.
PO-9:	Demonstrate expertise in digital forensic techniques, including the identification, preservation, and analysis of digital evidence, such as computer files, electronic communications, and data storage devices.
PO-10:	Work effectively as part of a multidisciplinary team, collaborating with law enforcement professionals, legal experts, and other forensic specialists to contribute to comprehensive and successful case resolutions.
PO-11:	Recognize the importance of continuous professional development, staying abreast of advancements in forensic science, and engaging in lifelong learning to enhance expertise and adapt to evolving challenges in the field.
PO-12:	Exhibit ethical leadership, social responsibility, and a commitment to promoting justice and truth in the application of forensic science, adhering to ethical standards, and contributing positively to society.

MASTERS OF SCIENCE IN FORENSIC SCIENCE
(M.Sc. FS)

Program Specific Outcomes
(PSOs)

MASTERS OF SCIENCE IN FORENSIC SCIENCE (M.Sc. FS)
PROGRAMME SPECIFIC OUTCOME (PSOs)

Program Specific Objectives (PSOs) are statements that focus on the unique and specialized aspects of M.Sc. in Forensic Science program. These objectives describe the specific outcomes and skills that students will achieve in this program. The PSO's of the M.Sc. Forensic science program are as follows:

PSO1:	Develop an advanced level of expertise in various forensic analysis techniques, including fingerprint identification, DNA profiling, ballistics analysis, toxicology, serology, and digital forensics. M.Sc. Forensic Science students will be proficient in utilizing state-of-the-art instrumentation and methods to analyze diverse types of evidence encountered in forensic investigations.
PSO2:	Acquire specialized knowledge and skills in specific forensic sub-disciplines, such as forensic anthropology, forensic entomology, forensic odontology, forensic chemistry, and forensic document examination. M.Sc. Forensic Science program will be prepared to address specialized challenges in their chosen areas of expertise.
PSO3:	Develop the ability to manage and lead complex forensic cases effectively. Students of M.Sc. Forensic Science will be equipped with the skills to coordinate interdisciplinary teams, oversee evidence collection, conduct thorough analyses, and present expert testimony in legal proceedings.
PSO4:	Understand the application of forensic science principles in medico-legal investigations, including postmortem examination, cause of death determination, and the evaluation of injuries and trauma. Post-graduates in the forensic science program will be prepared to contribute to the investigation of suspicious deaths and collaborate with medical professionals in forensic pathology.
PSO5:	Develop research capabilities in forensic science and demonstrate the ability to conduct independent research projects. Post-graduates in the forensic science program will be encouraged to publish their findings in reputable scientific journals and contribute to the advancement of knowledge in the field.