



**INTEGRAL UNIVERSITY, LUCKNOW**  
**INTEGRAL INSTITUTE OF ALLIED HEALTH SCIENCES**  
**DEPARTMENT OF PARAMEDICAL SCIENCES**  
**BACHELOR OF SCIENCE IN FORENSIC SCIENCE**  
**(B.Sc.FS)**  
**SYLLABUS AND EVALUATION SCHEME**  
**YEAR/ SEMESTER**  
**II/III & II/IV**  
**&**  
**PEOs-POs-PSOs**



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

**Program: B.Sc. FS**

**Semester-III**

| S. N.            | Course code | Course Title              | Type of Paper | Period Per hr/week/sem |           |           | Evaluation Scheme |            |            |            | Sub. Total  | Credit    | Total Credit |
|------------------|-------------|---------------------------|---------------|------------------------|-----------|-----------|-------------------|------------|------------|------------|-------------|-----------|--------------|
|                  |             |                           |               | L                      | T         | P         | CT                | TA         | Total      | ESE        |             |           |              |
| <b>THEORIES</b>  |             |                           |               |                        |           |           |                   |            |            |            |             |           |              |
| 1                | FS201       | Forensic Medicine         | Core          | 2                      | 1         | 0         | 40                | 20         | 60         | 40         | 100         | 2:1:0     | 3            |
| 2                | FS202       | Forensic Physics- I       | Core          | 2                      | 1         | 0         | 40                | 20         | 60         | 40         | 100         | 2:1:0     | 3            |
| 3                | FS203       | Forensic Biology-I        | Core          | 2                      | 1         | 0         | 40                | 20         | 60         | 40         | 100         | 2:1:0     | 3            |
| 4                | FS204       | Forensic Psychology       | Core          | 2                      | 1         | 0         | 40                | 20         | 60         | 40         | 100         | 2:1:0     | 3            |
| 5                | CH219       | Forensic Chemistry-I      | Core          | 2                      | 1         | 0         | 40                | 20         | 60         | 40         | 100         | 2:1:0     | 3            |
| 6                | ES101       | Environmental Study       | Core          | 2                      | 1         | 0         | 40                | 20         | 60         | 40         | 100         | 2:1:0     | 3            |
| <b>PRACTICAL</b> |             |                           |               |                        |           |           |                   |            |            |            |             |           |              |
| 1                | FS205       | Forensic Medicine-Lab     | Core          | 0                      | 0         | 2         | 40                | 20         | 60         | 40         | 100         | 0:0:1     | 1            |
| 2                | CH220       | Forensic Chemistry –I-Lab | Core          | 0                      | 0         | 2         | 40                | 20         | 60         | 40         | 100         | 0:0:1     | 1            |
| 3                | FS206       | Forensic Physics-I – Lab  | Core          | 0                      | 0         | 2         | 40                | 20         | 60         | 40         | 100         | 0:0:1     | 1            |
| 4                | FS207       | Forensic Biology-I - Lab  | Core          | 0                      | 0         | 2         | 40                | 20         | 60         | 40         | 100         | 0:0:1     | 1            |
| 5                | FS208       | Forensic Psychology-Lab   | Core          | 0                      | 0         | 2         | 40                | 20         | 60         | 40         | 100         | 0:0:1     | 1            |
| <b>Total</b>     |             |                           |               | <b>12</b>              | <b>06</b> | <b>10</b> | <b>440</b>        | <b>220</b> | <b>660</b> | <b>440</b> | <b>1100</b> | <b>23</b> | <b>23</b>    |

| 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 |
| <b>THEORIES</b>  |             |                           |               |               |                  |                   |                 |                              |             |   |                     |
| 1                | FS 201      | Forensic Medicine         | Core          | √             | √                | √                 | √               |                              | √           | √   | 3,4                 |
| 2                | FS 202      | Forensic Physics- I       | Core          | √             | √                | √                 |                 |                              | √           | √   | 3,4                 |
| 3                | FS 203      | Forensic Biology-I        | Core          | √             | √                | √                 |                 |                              | √           | √   | 3,4                 |
| 4                | FS 204      | Forensic Psychology       | Core          | √             | √                | √                 |                 |                              | √           | √   | 3,4                 |
| 5                | CH219       | Forensic Chemistry-I      | Core          | √             | √                | √                 |                 |                              | √           | √   | 3,4                 |
| 6                | ES 101      | Environmental Study       | Core          | √             | √                | √                 |                 | √                            | √           | √   | 3,4                 |
| <b>PRACTICAL</b> |             |                           |               |               |                  |                   |                 |                              |             |   |                     |
| 1                | FS 205      | Forensic Medicine-Lab     | Core          | √             | √                | √                 | √               |                              | √           | √   | 3,4                 |
| 2                | CH220       | Forensic Chemistry –I-Lab | Core          | √             | √                | √                 |                 |                              | √           | √   | 3,4                 |
| 3                | FS 206      | Forensic Physics-I – Lab  | Core          | √             | √                | √                 |                 |                              | √           | √   | 3,4                 |
| 4                | FS 207      | Forensic Biology-I - Lab  | Core          | √             | √                | √                 |                 |                              | √           | √   | 3,4                 |
| 5                | FS 208      | Forensic Psychology-Lab   | 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: B.Sc. FS**

**Semester-IV**

| S. N.            | Course code | Course Title                      | Type of Paper | Period Per hr/week/sem |           |           | Evaluation Scheme |            |            |            | Sub. Total  | Credit    | Total Credits |
|------------------|-------------|-----------------------------------|---------------|------------------------|-----------|-----------|-------------------|------------|------------|------------|-------------|-----------|---------------|
|                  |             |                                   |               | L                      | T         | P         | CT                | TA         | Total      | ESE        |             |           |               |
| <b>THEORIES</b>  |             |                                   |               |                        |           |           |                   |            |            |            |             |           |               |
| 1                | FS 209      | Forensic Anthropology             | Core          | 3                      | 1         | 0         | 40                | 20         | 60         | 40         | 100         | 31:0      | 4             |
| 2                | FS210       | Forensic Physics-II               | Core          | 2                      | 1         | 0         | 40                | 20         | 60         | 40         | 100         | 2:1:0     | 3             |
| 3                | FS211       | Forensic Biology-II               | Core          | 2                      | 1         | 0         | 40                | 20         | 60         | 40         | 100         | 2:1:0     | 3             |
| 4                | FS212       | Digital and Cyber Forensic- I     | Core          | 2                      | 1         | 0         | 40                | 20         | 60         | 40         | 100         | 2:1:0     | 3             |
| 5                | FS213       | Quality management in Laboratory  | Core          | 2                      | 1         | 0         | 40                | 20         | 60         | 40         | 100         | 2:1:0     | 3             |
| 6                | CH227       | Forensic Chemistry-II             | Core          | 3                      | 1         | 0         | 40                | 20         | 60         | 40         | 100         | 3:1:0     | 4             |
| <b>PRACTICAL</b> |             |                                   |               |                        |           |           |                   |            |            |            |             |           |               |
| 1                | FS214       | Forensic Anthropology-Lab         | Core          | 0                      | 0         | 2         | 40                | 20         | 60         | 40         | 100         | 0:0:1     | 1             |
| 2                | FS215       | Forensic Physics II-Lab           | Core          | 0                      | 0         | 2         | 40                | 20         | 60         | 40         | 100         | 0:0:1     | 1             |
| 3                | FS216       | Forensic Biology -II- Lab         | Core          | 0                      | 0         | 2         | 40                | 20         | 60         | 40         | 100         | 0:0:1     | 1             |
| 4                | FS217       | Digital and cyber forensic-I -Lab | Core          | 0                      | 0         | 2         | 40                | 20         | 60         | 40         | 100         | 0:0:1     | 1             |
| 5                | CH228       | Forensic Chemistry-II- Lab        | Core          | 0                      | 0         | 2         | 40                | 20         | 60         | 40         | 100         | 0:0:1     | 1             |
| <b>Total</b>     |             |                                   |               | <b>14</b>              | <b>06</b> | <b>10</b> | <b>440</b>        | <b>220</b> | <b>660</b> | <b>440</b> | <b>1100</b> | <b>25</b> | <b>25</b>     |

| 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 |
| <b>THEORIES</b>  |             |                                   |               |               |                  |                   |                 |                              |             |   |                     |
| 1                | FS209       | Forensic Anthropology             | Core          | √             | √                | √                 | √               |                              | √           | √   | 3,4                 |
| 2                | FS210       | Forensic Physics-II               | Core          | √             | √                | √                 |                 |                              | √           | √   | 3,4                 |
| 3                | FS211       | Forensic Biology-II               | Core          | √             | √                | √                 |                 |                              | √           | √   | 3,4                 |
| 4                | FS212       | Digital and Cyber Forensic- I     | Core          | √             | √                | √                 |                 |                              | √           | √   | 3,4                 |
| 5                | FS213       | Quality management in Laboratory  | Core          | √             | √                | √                 | √               | √                            | √           | √   | 3,4                 |
| 6                | CH227       | Forensic Chemistry-II             | Core          | √             | √                | √                 |                 |                              | √           | √   | 3,4                 |
| <b>PRACTICAL</b> |             |                                   |               |               |                  |                   |                 |                              |             |   |                     |
| 1                | FS214       | Forensic Anthropology-Lab         | Core          | √             | √                | √                 | √               |                              | √           | √   | 3,4                 |
| 2                | FS215       | Forensic Physics II-Lab           | Core          | √             | √                | √                 |                 |                              | √           | √   | 3,4                 |
| 3                | FS216       | Forensic Biology -II- Lab         | Core          | √             | √                | √                 |                 |                              | √           | √   | 3,4                 |
| 4                | FS217       | Digital and cyber forensic-I -Lab | Core          | √             | √                | √                 |                 |                              | √           | √   | 3,4                 |
| 5                | CH228       | Forensic Chemistry-II- Lab        | 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)

**BACHELOR OF SCIENCE IN FORENSIC SCIENCE  
(B.Sc. FS)**



**Program Educational Outcomes  
(PEOs)**

## Program Educational Outcomes (PEOs)

The PEOs are broad statements that describe the career and professional accomplishments that the program is preparing its graduates to achieve in few years subsequent to receiving the degree. The PEO's of the forensic science program are as follows and the graduates of the Integral University forensic science program will be expected to:

|              |  |
|--------------|--|
| <b>PEO1:</b> | Forensic graduates will be well prepared for successful careers in the profession or in research & innovation at an industry and/or in government in one or more of discipline of forensic science and /or sub disciplines of forensic science.            |
| <b>PEO2:</b> | Forensic graduates will make skilled in implementing current and emerging technologies and software practices for detection, analyses, and evaluation of forensic evidence.  |
| <b>PEO3:</b> | Forensic graduates will be successful in leading the multidisciplinary teams with professional competencies to extend his experiences, abilities and dexterities in scientific investigations to give unbiased and firm scientific opinions in the courts. |
| <b>PEO4:</b> | Forensic graduates will serve the society not solely as forensic expert but as a contributor towards healthy, secure and vibrant society by making people alert about various methods adopted by the criminals for committing the crimes.                  |
| <b>PEO5:</b> | Forensic graduates will be successful in higher education in forensic science or criminology, if pursued.  |

**BACHELOR OF SCIENCE IN FORENSIC SCIENCE  
(B.Sc.FS)**



**PROGRAMME OUTCOMES  
(POs)**

## BACHELOR OF SCIENCE IN FORENSIC SCIENCE (B.Sc. FS) PROGRAMME OUTCOMES (POs)

### **PROGRAMME OUTCOMES (POs) POs and its Attributes: -**

Program Outcomes (POs) are attributes of the graduates of the Programme that are indicative of the graduates' ability and competence to work as a forensic scientist upon graduation. Program Outcomes are statements that describe what students are expected to know or be able to do by the time of graduation. They must relate to knowledge and skills that the students acquire from the Programme. The achievement of all outcomes indicates that the student is well prepared to achieve the program educational objectives down the road. The following 12 POs have been chosen by the Department of Paramedical Sciences Integral University. The Forensic Science Program curriculum at Integral University has been designed to fully meet all the 12 Program Outcomes:

|               |   |
|---------------|---|
| <b>PO-1:</b>  | Apply the knowledge of forensic and its different specializations to identify the modus operandi of criminals and investigate complex crimes.   |
| <b>PO-2:</b>  | Demonstrate team leadership skills through ability to set directions and teamwork skill for achieving the desired goals.  |
| <b>PO-3:</b>  | Apply reasoning within the conceptual knowledge to serve as an expert with integrity and high professional ethics that can deliver clear, objective, and unbiased opinions.   |
| <b>PO-4:</b>  | Communicate effectively to direct and guide interdisciplinary team members.   |
| <b>PO-5:</b>  | Function effectively to communicate and express himself in the society with learning zeal and to deliver clear and firm eye witness in any proceeding that may be referred in future in similar cases.  |
| <b>PO-6:</b>  | Recognize and execute research-based methods including targeted experiments, analysis and interpretation of data and synthesis of information leading to logical conclusions for combating the crime.   |
| <b>PO-7:</b>  | Apply selected knowledge to work on complex analytical instruments so as to present accurate and complete data in reports based on good scientific practices and validated methods.   |
| <b>PO-8:</b>  | Stay abreast of new findings and researches and along with lifelong learning in the field.  |
| <b>PO-9:</b>  | Create and Innovate ideas that can lead to a powerful breakthrough in criminal and civil investigations.  |
| <b>PO-10:</b> | Function effectively to serve the society not solely as forensic professional but as a contributor towards healthy, secure and vibrant society by making people alert about various methods adopted by the criminals for committing the crimes. |
| <b>PO-11:</b> | Enhance and adopt new skills for future employability in teaching and research through seminar, internship.   |
| <b>PO-12:</b> | Function effectively to serve the society not solely as forensic professional but as a contributor towards healthy, secure and vibrant society by making people alert about various methods adopted by the criminals for committing the crimes. |

# **BACHELOR OF SCIENCE IN FORENSIC SCIENCE (B.Sc. FS)**



## **Program Specific Outcomes (PSOs)**



## BACHELOR OF SCIENCE IN FORENSIC SCIENCE (B.Sc. FS) PROGRAMME SPECIFIC OUTCOME (PSOs)

Program Specific Objectives (PSOs) are specific statements that describe the professional career accomplishment that the program is designed. The PSO's of the B. Sc. Forensic science program are as follows:

|              |  |
|--------------|--|
| <b>PSO1:</b> | The students will be able to know about the different concepts, skills and techniques of the sciences (Chemistry, Physics, Biology, Psychology, and Computer Science etc.) Related to Forensic Science and Criminal Justice system.  |
| <b>PSO2:</b> | The students will be able to develop understanding about need & nature of different divisions of forensic Science, Crime and Criminal law, forensic science laboratories and structural and functional aspects of various law enforcement agencies (NCB, NIA, CBI, BPR&D, INTERPOLE, RAW etc.) |
| <b>PSO3:</b> | The students will able to develop critical thinking, reasoning abilities and selecting appropriate technique required during handling, analyzing and interpretation of diverse evidences like digital, chemistry, anthropological, toxicological, biological, documents, audio/videos, s etc.  |
| <b>PSO4:</b> | Students will able to detect and opine on the evidences recovered from various crime scenes that may involve exhibit of biology, digital, question document, anthropological, photographic etc. before the judiciary or criminal justice system.   |
| <b>PSO5:</b> | Student learns applying quality control, safety measures & maintenance procedure of laboratory equipment and will be able to apply ethical principles and commit to professional ethics and responsibilities of forensic science.  |