# Jndex Department of Physiotherapy & Paramedical Sciences

#### **Malwanchal University, Indore**

| PROGRAM O | PROGRAM OUTCOMES OF BMLT   |  |
|-----------|--|--|
| PO1       | Apply knowledge and technical skills associated with medical laboratory  |  |
|           | technology for delivering quality clinical investigations support.   |  |
| PO2       | Perform routine clinical laboratory procedures within acceptable quality control   |  |
|           | parameters in haematology, biochemistry, immunohematology and microbiology   |  |
| PO3       | Demonstrate technical skills, social behaviour and professional awareness for  |  |
|           | functioning effectively as a laboratory technician.  |  |
| PO4       | Apply problem solving techniques in identification and correction of pre analytical, post analytical & analytical variables. |  |
| PO5       | Operate and maintain laboratory  |  |

| PROGR | PROGRAM SPECIFIC OUTCOMES   |  |
|-------|---|--|
| PSO 1 | Understand normal ranges/values for all common hematology/Biochemical parameters and their clinical significance.   |  |
| PSO 2 | Medical laboratory program is to prepare professionals to demonstrate the highest quality of technical and clinical competencies in serving their patients and the laboratory profession. |  |
| PSO 3 | Perform routine tissue processing and freeze drying technique in histopathology.  Perform various staining techniques to identify premalignant or malignant condition.                    |  |
| PSO 4 | Demonstrate technical skills, social behavior and professional awareness for functioning effectively as a laboratory technician.  |  |
| PSO 5 | Explain principle, rationale uses and interpretation of routine biochemical tests for organism identification. Demonstrate proficient use of routine biochemical tests.                   |  |
| PSO 6 | Have Knowledge and technical skills associated with medical laboratory technology for delivering quality clinical investigations.   |  |

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## Department of Physiotherapy & Paramedical Sciences

### Malwanchal University, Indore

### BMLT 1<sup>ST</sup> YEAR

| Name of the program       | Bachelor in Medical Lab Technician                            |
|---------------------------|---|
| Name of the course        | Basic Principle of Biochemistry                               |
| Course code               | BMT- 101  |
| Course learning outcome – |   |
| CO1                       | After the completion of this topic, students shall be able to |
|                           | understand the determination of cultural media                |
| CO2                       | Students shall be able to handling the laboratory animals     |
| CO3                       | Students shall be capable to determine the medical virology   |

| Name of the program       | Bachelor in Medical Lab Technician                            |
|---------------------------|---|
| Name of the course        | Microbiology  |
| Course code               | BMT- 102  |
| Course learning outcome – |   |
| CO1                       | After the completion of this topic, students shall be able to |
|                           | understand the use of different laboratory instrument         |
| CO2                       | Students shall be able to characteristics of virus            |
| CO3                       | Students shall be capable to determine the antibody reaction  |

| Name of the program       | Bachelor in Medical Lab Technician                            |
|---------------------------|---|
| Name of the course        | Haematology   |
| Course code               | BMT- 103  |
| Course learning outcome – |   |
| CO1                       | After the completion of this topic, students shall be able to |
|                           | understand the use of physiological variations                |
| CO2                       | Students shall be able to characteristics of haematocytometry |
| CO3                       | Students shall be capable to determine the absolute values in |
|                           | haemoglobin   |

| Name of the program       | Bachelor in Medical Lab Technician                                      |
|---------------------------|---|
| Name of the course        | Microbiology  |
| Course code               | BMT- 104  |
| Course learning outcome – |   |
| CO1                       | Get detailed information about the host, parasite, their life cycle and |
|                           | various diseases caused by them.  |
| CO2                       | Prepare various culture media, Care & handling of laboratory animals    |
|                           | and get their extracts for culture preparation                          |
| CO3                       | Care and handling of glassware, their use and cleaning techniques,      |
|                           | sterilization processes   |

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#### **Malwanchal University, Indore**

#### BMLT 2<sup>ND</sup> Yr

| Name of the program       | Bachelor in Medical Lab Technician  |
|---------------------------|---|
| Name of the course        | Cellular pathology  |
| Course code               | BMT- 201  |
| Course learning outcome – |   |
| CO1                       | After the completion of this topic, students shall be able to understand the determination of different types of body tissues |
| CO2                       | Students shall be able to perform the test in cytology screening  |
| CO3                       | Students shall be capable to determine the function of the respiratory system   |

| Name of the program       | Bachelor in Medical Lab Technician  |
|---------------------------|---|
| Name of the course        | Identification of bacteria  |
| Course code               | BMT- 202  |
| Course learning outcome – |   |
| C01                       | After the completion of this topic, students shall be able to understand the determination of pathogenesis and virology |
| CO2                       | Students shall be able to perform the test in laboratory  |
| CO3                       | Students shall be capable to determine the anti microbiology testing  |

| Name of the program       | Bachelor in Medical Lab Technician                            |
|---------------------------|---|
| Name of the course        | Analytical biochemistry                                       |
| Course code               | BMT- 203  |
| Course learning outcome – |   |
| CO1                       | After the completion of this topic, students shall be able to |
|                           | understand the different types of glass ware and composition  |
| CO2                       | Students shall be able to perform the ELISA test              |
| CO3                       | Students shall be capable to determine the colorimeter        |

| Name of the program       | Bachelor in Medical Lab Technician   |
|---------------------------|--|
| Name of the course        | Haemotology  |
| Course code               | BMT- 204   |
| Course learning outcome – |  |
| CO1                       | After the completion of this topic, students shall be able to understand the determination of compatibility test in blood abnormal haemoglobin |
| CO2                       | Students shall be able to perform the test in laboratory   |
| CO3                       | Students shall be capable to determine the tools   |

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## Department of Physiotherapy & Paramedical Sciences

#### Malwanchal University, Indore

#### BMLT 3<sup>RD</sup> Yr

| Name of the program       | Bachelor in Medical Lab Technician                                    |
|---------------------------|---|
| Name of the course        | Applied histology   |
| Course code               | BMT- 301  |
| Course learning outcome – |   |
| CO1                       | After the completion of this topic, students shall be able to         |
|                           | understand the determination of different types of histological       |
|                           | specimens   |
| CO2                       | Students shall be able to perform the test in urine to identification |
|                           | of different types of pregnancy test                                  |
| CO3                       | Students shall be capable to determine the allergy                    |

| Name of the program       | Bachelor in Medical Lab Technician                                    |
|---------------------------|---|
| Name of the course        | Applied microbiology  |
| Course code               | BMT- 302  |
| Course learning outcome – |   |
| CO1                       | After the completion of this topic, students shall be able to         |
|                           | understand the determination of different bacterial examination       |
| CO2                       | Students shall be able to perform the test in urine to identification |
|                           | of different types of toxin antitoxin assay                           |
| CO3                       | Students shall be capable to determine the serological test           |

| Name of the program       | Bachelor in Medical Lab Technician  |
|---------------------------|---|
| Name of the course        | Applied biochemistry  |
| Course code               | BMT- 303  |
| Course learning outcome – |   |
| CO1                       | After the completion of this topic, students shall be able to understand the different types of |
| CO2                       | Students shall be able to perform the test in biochemistry to                                   |
|                           | identification of different types of biological material  |
| CO3                       | Students shall be capable to determine the glucose tolerance test                               |

| Name of the program       | Bachelor in Medical Lab Technician   |
|---------------------------|--|
| Name of the course        | Applied Haematology  |
| Course code               | BMT- 304   |
| Course learning outcome – |  |
| CO1                       | After the completion of this topic, students shall be able to understand the determination of different types of laboratory investigations |
| CO2                       | Students shall be able to perform the test in biochemistry to identification of different types of cytogenic studies                       |
| CO3                       | Students shall be capable to determine the safety measures for handling radio isotypes   |