## STRUCTURE OF THE SYLLABUS FOR MEDICAL LABORATORY TECHNOLOGY AY (2025-26)

| SCHOOL NAME          | - RSMAS      |
|----------------------|--------------|
| DEPARTMENT NA        | ME - MLT     |
| PROGRAMME NAME-      |              |
| SPECILIZATION IN HEM | MATOLOGY AND |
| BLOOD BANKING AN     | ND MEDICAL   |
| MICROBIOL            | OGY          |

TOTAL CREDIT (4 SEMRESTERS)- 88
PROJECT/DISSERTATION – 4<sup>TH</sup> SEMESTER

| COURSE CODE   COURSE TITLE   LEVEL   CREDIT   L-T-P  |              | 1st SEMESTER                        |           |        |       |
|--|--------------|-------------------------------------|-----------|--------|-------|
| Clinical Pathology (Theory +Lab)   400   4   2-0-4   | COURSE CODE  |                                     | LEVEL     | CREDIT | L-T-P |
| MLT244C112   Biochemistry I (Theory + lab)   400   4   2-0-4   | MLT244C101/  | Clinical Pathology (Theory +Lab)    | 400       | 4      |       |
| MLT244C112   | MLT244C111   |                                     |           |        |       |
| MLT244C103/   Immunology and Serology (Theory+Lab)   400   4   2-0-4   | MLT244C102/  | Biochemistry I (Theory + lab)       | 400       | 4      | 2-0-4 |
| MLT244C113   | MLT244C112   |                                     |           |        |       |
| MLT244C104/   Histopathology and Cytopathology   400   4   2-0-4     MLT244C105   Advanced Diagnostic Techniques   400   3   3-1-0     MLT244C106   Biostatistics and Research   400   3   3-1-0     MCCC (Swayam courses)   | MLT244C103/  |                                     | 400       | 4      | 2-0-4 |
| MLT144C114   | MLT244C113   | (Theory+Lab)                        |           |        |       |
| MLT244C105   Advanced Diagnostic Techniques   400   3   3-1-0     MLT244C106   Biostatistics and Research   400   3   3-1-0     MOOC (Swayam courses)   TOTAL CREDIT FOR 1st SEMESTER   28   24  | MLT244C104/  | Histopathology and Cytopathology    | 400       | 4      | 2-0-4 |
| MILT244C106   Biostatistics and Research   Methodologies   MOOC (Swayam courses)   MOOC (Swayam courses)   A00   4   Mooc  | MLT144C114   |                                     |           |        |       |
| Methodologies  | MLT244C105   | Advanced Diagnostic Techniques      | 400       | 3      | 3-1-0 |
| TOTAL CREDIT FOR 1st SEMESTER   28   24  | MLT244C106   | Biostatistics and Research          | 400       | 3      | 3-1-0 |
| COURSE CODE  |              | Methodologies                       |           |        |       |
| TOTAL CREDIT FOR 1st SEMESTER   28   24  | MOOC (Swayam |                                     | 400       | 4      |       |
| COURSE CODE  | courses)     |                                     |           |        |       |
| COURSE CODE  |              | TOTAL CREDIT FOR 1st SI             | EMESTER   | 28     | 24    |
| COURSE CODE  |              | 2 <sup>nd</sup> SEMESTER            |           |        |       |
| COURSE CODE   COURSE TITLE   LEVEL   CREDIT   L-T-P   MLT244C301   MLT244C302   Blood banking-I (Theory+Lab)   COURSE CODE   COURSE TITLE   LEVEL   CREDIT   L-T-P   MLT244C302   Blood banking-II and Coagulation   CTheory+Lab   MLT244C303   Blood banking-II and Coagulation   CTheory+Lab   CTytogenetics and molecular genetics   500   4   3-1-0   MLT244C304   Medical Lab Management   500   4   3-1-0   MLT244C304   Medical Lab Management   500   4   3-1-0   MLT244C304   MEDIT   FOR 1st YEAR = 40   MCT244C301   MCT244C301   MCT244C301   MCT244C301   MCT244C301   MCT244C302   MCT244C302   MCT244C302   MCT244C303   MCT244C303   MCT244C304   Cytogenetics and molecular genetics   500   4   3-1-0   MLT244C304   Cytogenetics and molecular genetics   500   4   3-1-0   MCT244C304   Cytogenetics   500   4 | COURSE CODE  |                                     | LEVEL     | CREDIT | L-T-P |
| Blood Banking I (Theory + Lab)   S00   4   2-0-4   | MLT244C201/  |                                     | 500       | 4      | 2-0-4 |
| CTheory + Lab   Biochemistry II   500   4   2-0-4  | MLT244C211   | (Theory +Lab)/ Haematology I and    |           |        |       |
| MLT244C212   (Theory + Lab)  |              | Blood Banking I                     |           |        |       |
| MLT244C212   (Theory + Lab)  | MI T244C202/ | (Theory + Lab)                      | 500       | 4      | 2.0.4 |
| Diagnostic Molecular Biology   |              |                                     | 500       | 4      | 2-0-4 |
| MLT244C204   Medical Lab Management   500   4   3-1-4     MOOC (Swayam courses)   TOTAL CREDIT FOR 2 <sup>nd</sup> SEMESTER   20   16     TOTAL CREDIT FOR 1 <sup>st</sup> YEAR = 40     Specialization in Hematology and Blood Banking)     COURSE CODE   COURSE TITLE   LEVEL   CREDIT   L-T-P     MLT244C301   Hematology-II (Theory+Lab)   500   6   3-0-6     MLT244C312   Blood banking-II and Coagulation   500   6   3-0-6     MLT244C303   Bioethics, IPR, Biosafety   500   4   3-1-0     MLT244C304   Cytogenetics and molecular genetics   500   4   3-1-0   |              |                                     | 500       | 4      | 2.0.4 |
| MLT244C204   Medical Lab Management   500   4   3-1-4     MOOC (Swayam courses)   TOTAL CREDIT FOR 2 <sup>nd</sup> SEMESTER   20   16     TOTAL CREDIT FOR 1 <sup>st</sup> YEAR = 40     Specialization in Hematology and Blood Banking     COURSE CODE   COURSE TITLE   LEVEL   CREDIT   L-T-P     MLT244C301   Hematology-II (Theory+Lab)   500   6   3-0-6     MLT244C312   Blood banking-II and Coagulation   500   6   3-0-6     MLT244C303   Bioethics, IPR, Biosafety   500   4   3-1-0     MLT244C304   Cytogenetics and molecular genetics   500   4   3-1-0  |              |                                     | 500       | 4      | 2-0-4 |
| TOTAL CREDIT FOR 2 <sup>nd</sup> SEMESTER   20   16  |              |                                     |           |        |       |
| TOTAL CREDIT FOR 2 <sup>nd</sup> SEMESTER   20   16  |              | Medical Lab Management              |           |        | 3-1-4 |
| TOTAL CREDIT FOR 2 <sup>nd</sup> SEMESTER   20   16  | ` •          |                                     | 500       | 4      |       |
| TOTAL CREDIT FOR 1st YEAR = 40     3rd SEMESTER   (Specialization in Hematology and Blood Banking)   COURSE CODE   COURSE TITLE   LEVEL   CREDIT   L-T-P   MLT244C301/   Hematology-II (Theory+Lab)   500   6   3-0-6   MLT244C311   MLT244C302/   Blood banking-II and Coagulation   500   6   3-0-6   MLT244C312   (Theory+Lab)   MLT244C303   Bioethics, IPR, Biosafety   500   4   3-1-0   MLT244C304   Cytogenetics and molecular genetics   500   4   3-1-0   MLT24C304   Cytogenetics   500   Cytogenetics   500   Cytogenetics   500   Cytogenetics   500   Cytogenetics   Cytogenetic | courses)     |                                     |           |        |       |
| Semester   Specialization in Hematology and Blood Banking  |              | TOTAL CREDIT FOR 2 <sup>nd</sup> SI | EMESTER   | 20     | 16    |
| (Specialization in Hematology and Blood Banking)  COURSE CODE MLT244C301/ MLT244C311 MLT244C302/ MLT244C312 MLT244C303 MLT244C303 MLT244C303 MLT244C303 MLT244C303 Bioethics, IPR, Biosafety MLT244C304 Cytogenetics and molecular genetics  (Specialization in Hematology and Blood Banking)  LEVEL CREDIT L-T-P  500 6 3-0-6 3-0-6  3-1-0 4 3-1-0  |              |                                     | R = 40    |        |       |
| COURSE CODE         COURSE TITLE         LEVEL         CREDIT         L-T-P           MLT244C301/<br>MLT244C311         Hematology-II (Theory+Lab)         500         6         3-0-6           MLT244C302/<br>MLT244C312         Blood banking-II and Coagulation<br>(Theory+Lab)         500         6         3-0-6           MLT244C303         Bioethics, IPR, Biosafety         500         4         3-1-0           MLT244C304         Cytogenetics and molecular genetics         500         4         3-1-0  |              |                                     | ad Rankin | α)     |       |
| MLT244C301/<br>MLT244C311         Hematology-II (Theory+Lab)         500         6         3-0-6           MLT244C302/<br>MLT244C312         Blood banking-II and Coagulation<br>(Theory+Lab)         500         6         3-0-6           MLT244C303         Bioethics, IPR, Biosafety         500         4         3-1-0           MLT244C304         Cytogenetics and molecular genetics         500         4         3-1-0  | COURSE CORE  | \ 1                                 |           | Ψ/     | I T D |
| MLT244C311         Blood banking-II and Coagulation (Theory+Lab)         500         6         3-0-6           MLT244C312         (Theory+Lab)         500         4         3-1-0           MLT244C303         Bioethics, IPR, Biosafety         500         4         3-1-0           MLT244C304         Cytogenetics and molecular genetics         500         4         3-1-0   |              |                                     |           |        | _     |
| MLT244C302/ Blood banking-II and Coagulation 500 6 3-0-6 MLT244C312 (Theory+Lab) 500 4 3-1-0 MLT244C304 Cytogenetics and molecular genetics 500 4 3-1-0  |              | Tiematology-II (Theory-Lau)         | 300       | 0      | 3-0-0 |
| MLT244C312         (Theory+Lab)         500         4         3-1-0           MLT244C303         Bioethics, IPR, Biosafety         500         4         3-1-0           MLT244C304         Cytogenetics and molecular genetics         500         4         3-1-0  |              | Blood banking-II and Coagulation    | 500       | 6      | 3_0 6 |
| MLT244C303 Bioethics, IPR, Biosafety 500 4 3-1-0 MLT244C304 Cytogenetics and molecular genetics 500 4 3-1-0  |              |                                     | 300       | 0      | 3-0-0 |
| MLT244C304 Cytogenetics and molecular genetics 500 4 3-1-0   |              |                                     | 500       | 4      | 3_1_0 |
|  |              |                                     |           |        |       |
|  | WIL1244C3U4  |                                     |           | 20     | 20    |

| 3 <sup>rd</sup> SEMESTER             |  |   |  |
|--------------------------------------|--|---|--|
| (Specialization in Medical Microb    | oiology)   |   |  |
| COURSE TITLE                         | LEVEL  | CREDIT  | L-T-P  |
| Medical Parasitology                 | 500  | 6   | 3-0-6  |
|                                      |  |   |  |
| Medical Virology                     | 500  | 6   | 3-0-6  |
| (Theory+Lab)                         |  |   |  |
| Bioethics, IPR, Biosafety            | 500  | 4   | 3-1-0  |
| Cytogenetics and molecular genetics  | 500  | 4   | 3-1-0  |
| TOTAL CREDIT FOR 3 <sup>rd</sup> SI  | EMESTER  | 20  | 20   |
| 4 <sup>th</sup> SEMESTER             |  |   |  |
| COURSE TITLE                         | LEVEL  | CREDIT  | L-T-P  |
| Project/Dissertation                 | 500  | 20  | 0-0-20   |
| TOTAL CREDIT FOR 3 <sup>rd</sup> SI  | EMESTER  | 20  | 20   |
| TOTAL CREDIT FOR 2 <sup>nd</sup> YEA | R = 40   |   |  |
| TOTAL CREDIT FOR COURS               | E = 88   |   |  |
|                                      | (Specialization in Medical Microb  COURSE TITLE  Medical Parasitology (Theory+Lab)  Medical Virology (Theory+Lab)  Bioethics, IPR, Biosafety  Cytogenetics and molecular genetics  TOTAL CREDIT FOR 3 <sup>rd</sup> SI  4 <sup>th</sup> SEMESTER  COURSE TITLE  Project/Dissertation  TOTAL CREDIT FOR 3 <sup>rd</sup> SI  TOTAL CREDIT FOR 3 <sup>rd</sup> SI | (Specialization in Medical Microbiology)  COURSE TITLE LEVEL  Medical Parasitology 500 (Theory+Lab)  Medical Virology 500 (Theory+Lab)  Bioethics, IPR, Biosafety 500  Cytogenetics and molecular genetics 500  TOTAL CREDIT FOR 3 <sup>rd</sup> SEMESTER  4 <sup>th</sup> SEMESTER  COURSE TITLE LEVEL  Project/Dissertation 500 | (Specialization in Medical Microbiology)  COURSE TITLE |