

Medical Laboratory Science (MLSc) 2024-25

The below is a suggested program summary. Actual offering may differ from semester 1 to 2.

| Semester 1 | | Prerequisite(s) | Semester 2 | | Prerequisite(s) |
|------------|--|---|--|--|---|
| Year 1 | BIOL 1010U - Biology I | | MATH 1880U - Mathematical Modelling for Health Science | | |
| | CHEM 1010U - Chemistry I | | CHEM 1020U - Chemistry II | | CHEM 1010U |
| | HLSC 1200U - Human Anatomy & Physiology I | | HLSC 1201U - Anatomy & Physiology II | | HLSC 1200U |
| | HLSC 1701U - Information Literacy and Written Communication | | MLSC 1110U - Foundations in Clinical Biochemistry | | Credit restriction: HLSC 2110U |
| | Open Elective | | Open Elective | | |
| Semester 1 | | Prerequisite(s) | Semester 2 | | Prerequisite(s) |
| Year 2 | HLSC 2460U - Pathophysiology I | HLSC 1201U or HLSC 2202U | HLSC 2461U Pathophysiology II | | HLSC 2460U |
| | HLSC 3800U – Intro to Statistics for Health Science | 24 Credit Hours | HLSC 3910U - Research Methods for Health Care Professionals | | HLSC 3800U |
| | MLSC 1010U - Intro to Medical Laboratory Practice | CHEM 1020U and HLSC 1201U and (HLSC 2110U or MLSC 1110U) | MLSC 2111U - Clinical Biochemistry I | | MATH 1880U and MLSC 1010U |
| | MLSC 2130U - Foundations in Clinical Microbiology and Immunology | HLSC 1201U | MLSC 2121U - Clinical Hematology I | | MATH 1880U and MLSC 1010U |
| | Health Sciences Elective | | MLSC 2131U - Clinical Microbiology I | | MLSC 1010U and MLSC 2130U |
| Semester 1 | | Prerequisite(s) | Semester 2 | | Prerequisite(s) |
| Year 3 | MLSC 3111U - Clinical Biochemistry II | HLSC 2461U and MLSC 2111U | MLSC 3141U - Molecular Techniques & Complementary Technologies | | MLSC 3131U and MLSC 3230U or HLSC 2465U (B grade or higher & 60 Credit Hours) |
| | MLSC 3121U - Clinical Hematology II | HLSC 2461U and MLSC 2121U | MLSC 3210U - Effective Leadership and Quality Management | | MLSC 2111U |
| | MLSC 3131U - Clinical Microbiology II | HLSC 2461U and MLSC 2131U | MLSC 3220U - Transfusion Science II | | MLSC 3200U |
| | MLSC 3200U - Transfusion Science I | MLSC 2121U | MLSC 3231U - Advanced Histotechnology | | MLSC 3230U |
| | MLSC 3230U - Microanatomy and Histotechnology | HLSC 2461U and MLSC 1010U and MLSC 2130U | MLSC 3300U - Simulated Clinical Practicum | | HLSC 2461U, MLSC 3111U, MLSC 3121U, MLSC 3131U, MLSC 3200U, MLSC 3230U |
| Semester 1 | | Prerequisite(s) | Semester 2 | | Prerequisite(s) |
| Year 4 | HLSC 4820U - Interdisciplinary Collaboration | 72 Credit Hours | Open Elective | | |
| | MLSC 4111U - Clinical Biochemistry III | MLSC 3300U; Co-Req: MLSC 4400U | MLSC 4112U - Clinical Biochemistry IV | | MLSC 4111U; Co-Req: MLSC 4401U |
| | MLSC 4121U - Clinical Hematology III | MLSC 3300U; Co-Req: MLSC 4400U | MLSC 4122U - Clinical Hematology IV | | MLSC 4121U; Co-Req: MLSC 4401U |
| | MLSC 4131U - Clinical Microbiology III | MLSC 3300U, and MLSC 3141U; Co-Req: MLSC 4400U | MLSC 4132U - Clinical Microbiology IV | | MLSC 4131U; Co-Req: MLSC 4401U |
| | MLSC 4210U Professional Practice in Clinical Laboratory I | MLSC 3300U; Co-Req: MLSC 4400U | MLSC 4211U - Professional Practice in the Clinical Laboratory II | | MLSC 4210U; Co-Req: MLSC 4401U |
| | MLSC 4220U - Transfusion Science III | MLSC 3220U & MLSC 3300U; Co-Req: MLSC 4400U | MLSC 4221U - Transfusion Science IV | | MLSC 4220U; Co-Req: MLSC 4401U |
| | MLSC 4231U - Histopathology I | MLSC 3231U & MLSC 3300U; Co-Req: MLSC 4400U | MLSC 4232U Histopathology IV | | MLSC 4231U; Co-Req: MLSC 4401U |
| | MLSC 4400U - Clinical Project I* | HLSC 3910U; Co-Req: MLSC 4111U, 4121U, 4131U, 4210U, 4220U, 4231U | MLSC 4401U - Clinical Project II* | | MLSC 4400U; Co-Req: MLSC 4112U, 4122U, 4132U, 4211U, 4221U, 4232U |

*Only with permission only of Program Director and Practicum Coordinator may HLSC 4996U – Research Applications, and HLSC 4997U - Research Applications II, replace MLSC 4400 and 4401.

Program Progression Requirements: A student must achieve a minimum grade of C in all professional medical laboratory courses (MLSC) in order to pass the course. Students who earn a grade lower than a C in any of the courses designated MLSC will be put on program probation, regardless of their overall GPA. A second grade of less than C in any repeated MLSC designated course will result in an academic standing of Program Dismissal. Also, a total of three failures in any combination of required HLSC or MLSC courses will result in an academic standing of Program Dismissal. Effective May 2023, a student who has two withdrawals from a single MLSC course and/or a total of three withdrawals from a combination of required HLSC or MLSC courses will be program dismissed.