Medical Laboratory Science (MLS) Major
Curriculum for 2022-2023 Academic Year
124 Credits & ≥2.0 Cumulative GPA Required for Graduation

University Requirements:
___ ENGL110 Seminar in Composition∗
___ First Year Seminar (FYS) 0-4 cr (UNIV101)
√ Discovery Learning Experience (DLE) 3 cr (satisfied by MMSC473)
___ Multicultural Requirement 3 cr (may simultaneously satisfy breadth or 2nd writing)
___ University Breadth Requirements∗ (these must be from four different areas of study/course rubrics)
   ___ Creative Arts & Humanities∗ 3 cr
   ___ History & Cultural Change∗ 3 cr
   ___ Social & Behavioral Sciences∗ 3 cr
   ___ Math, Natural Science & Technology∗ 3 cr (satisfied by ≥ C- in BISC207 or 208, CHEM103 or 104)
√ Capstone Experience (satisfied by MMSC473)

MAJOR REQUIREMENTS:
___ Second Writing Requirement (must be designated in term taken; may also be breadth)
___ Mathematics (one of the following: MATH114, 115, 117, 221 or 241)
___ Additional Breadth
   ___ Either Creative Arts & Humanities or History & Cultural Change 3 cr
   ___ Social & Behavioral Sciences 3 cr

Core * (66 credits; minimum grade of C- required in all MMSC courses):
___ MMSC100 Intro to Medical & Molecular Sciences: 1
___ MMSC200 The Language of Medicine: 3
___ MMSC250 Comm, Ed & Ethics in Healthcare: 1
___ MMSC360 Clinical Immun & Medical Virology: 3
___ MMSC362 Clinical Immun & Medical Vir Lab: 1
___ MMSC370 Phlebotomy Practicum: 1
___ MMSC375 Stats & Rsrch for Med Lab Scientists: 2
___ MMSC402 Body Fluid Analysis: 1
___ MMSC412 Body Fluid Analysis Lab: 1
___ MMSC407 Clin Physiological Chem I: 3
___ MMSC417 Clin Physiological Chem Lab I: 1
___ MMSC409 Immunohematology I: 2
___ MMSC419 Immunohematology I Lab: 1
___ MMSC418 Senior Seminar: 0
___ MMSC420 Immunohematology II: 2
___ MMSC421 Immunohematology II Lab: 1
___ MMSC423 Hematology I: 2
___ MMSC424 Hematology II Lab: 1
___ MMSC428 Medical Microbiology I: 3
___ MMSC429 Medical Microbiology Lab: 2
___ MMSC430 Hematology II Lab: 2
___ MMSC437 Clinical Laboratory Instrumentation: 2
___ MMSC438 Diag Bacteriology & Med Mycology: 2
___ MMSC471 Laboratory Practice & Leadership I: 1
___ MMSC472 Clinical Urinalysis Practicum: 1
___ MMSC473 Clinical Chemistry Practicum: 3
___ MMSC474 Clinical Micro & Immun Practicum: 3
___ MMSC475 Clinical Hematological Practicum: 3
___ MMSC476 Clinical Micro & Immun Practicum: 3
___ MMSC477 Clinical Micro & Immun Practicum: 3
___ MMSC479 Clinical Immunohem Practicum: 3
___ MMSC480 Senior Seminar II: 1
___ MMSC491 Human Molecular Genetics: 3
___ MMSC493 Cellular & Molecular Diagnostic Techniques: 2
___ ≥ 124 credits/2.0 Cum GPA required for graduation

Science Requirements (32 credits):
___ BISC207 Introductory Biology I:4
___ BISC208 Introductory Biology II: 4
___ BISC276 Human Physiology: 4
___ BISC300 Introduction to Microbiology: 4
___ CHEM103/133 Gen Chem for Life Sci I: 4
___ CHEM104/134 Gen Chem for Life Sci II: 4
___ CHEM213 Elementary Organic Chem: 3**
___ CHEM215 Elem Organic Chem Lab: 1**
___ CHEM214 Elementary Biochem: 3**
___ CHEM216 Elementary Biochem Lab: 1**

√ - indicates that this requirement will be satisfied by a course within the required major/core courses
∗ ≥ C- required
** may substitute CHEM321/325 and 322/326 Organic Chem I and II lecture and lab for 213/215 and 214/216 listed above

Students are admitted to the MLS Interest major and apply for the MLS-BS major typically at the end of the sophomore year. Preferred Criteria for Admission to the MLS-BS Major, typically end of sophomore year: ≥ 2.0 GPA in first 4 semesters both cumulative and in these courses: BISC207, BISC208, BISC276, BISC300, CHEM103/133 OR 107, CHEM104/134 OR 108, CHEM213/215 AND CHEM214/216; completion of 60 credits.

6.24.22
# Medical Laboratory Science (MLS) Major
## Curriculum for 2022-2023 Academic Year

### 124 Credits & ≥2.0 Cumulative GPA Required for Graduation

**Suggested MLS Academic Program Sequence (see note below)**

Consult with your advisor for possible alternative sequencing and term availability of courses. MMSC course term availability listed below is proposed for the 2022-23 academic year but is subject to change. Refer to Course Descriptions at [https://udapps.nss.udel.edu/CourseDescription/](https://udapps.nss.udel.edu/CourseDescription/) for associated course Prerequisites and Corequisites.

### First Year

- **FALL** – 16 credits
  - BISC207 Intro Biology I: 4
  - CHEM103/133 Gen Chemistry: 4
  - Mathematics: 3
  - MMSC100 Intro to Medical & Molecular Sciences: 1
  - UNIV101 First Year Experience: 1
  - Breadth Requirement / _____________: 3

- **SPRING** – 14 credits
  - BISC208 Intro Biology II: 4
  - CHEM104/134 Gen Chemistry: 4
  - ENGL110 Seminar in Composition: 3
  - MMSC200 The Language of Medicine: 3

### Second Year

- **FALL** – 15 credits
  - BISC276 Human Physiology: 4
  - CHEM213 Elementary Organic Chemistry: 3**
  - CHEM215 Elem Organic Chem Lab: 1**
  - MMSC250 Comm., Educ & Ethics in Hlthcare: 1 (fall only)
  - Breadth Requirement / _____________: 3
  - Breadth Requirement / _____________: 3

- **SPRING** – 15 credits
  - BISC300 Intro to Microbiology: 4
  - CHEM214 Elementary Biochemistry: 3**
  - CHEM216 Elem Biochemistry Lab: 1**
  - Elective 1
  - Breadth Requirement/Multicultural / _____________: 3
  - Breadth Requirement / _____________: 3

### Third Year

- **FALL** – 15 credits; MMSC courses below Fall only
  - MMSC360/362 Clin Immun & Med Virology Lecture/Lab: 4
  - MMSC370 Phlebotomy Practicum: 1
  - MMSC375 Research & Stat for Med Lab Scientist: 2
  - MMSC402/412 Body Fluid Analysis Lecture/Lab: 2
  - MMSC491 Human Molecular Genetics: 3
  - Second writing course (designated each term): 3

- **SPRING** – 17 credits; MMSC courses below Spring only
  - MMSC493 Cellular & Molecular Diagnostic Techniques: 2
  - MMSC407/417 Clinical Physio Chem Lecture/Lab: 4
  - MMSC409/419 Immunohematology I Lecture/Lab: 3
  - MMSC423/424 Hematology I Lecture/Lab: 3
  - MMSC428/429 Medical Microbiology Lecture/Lab: 5

### Fourth Year

- **FALL** – 17 credits; MMSC courses below Fall only
  - MMSC418 Senior Seminar: 0
  - MMSC420/421 Immunohematology II Lecture/Lab: 3
  - MMSC433/434 Hematology II Lecture/Lab: 4
  - MMSC436 Clinical Physiological Chemistry II: 3
  - MMSC437 Clinical Laboratory Instrumentation: 2
  - MMSC438/439 Diagnostic Bacteriology & Med Mycology Lecture and Lab: 4
  - MMSC461 Laboratory Practice & Leadership I: 1

- **WINTER (off campus – 1 credit (offered winter only)**
  - MMSC472 Clinical Urinalysis Practicum: 1

- **SPRING** – 14 credits; MMSC courses below Spring only
  - MMSC471 Laboratory Practice & Leadership II: 1
  - MMSC473 Clinical Chemistry Practicum: 3
  - MMSC475 Clinical Hematology Practicum: 3
  - MMSC477 Clinical Microbiology Practicum: 3
  - MMSC479 Clinical Immunohematology Practicum: 3
  - MMSC480 Senior Seminar II: 1

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Total of 124 credits

**4+1 BS/MS Program students substitute:** 1) MMSC603 Research Design for MMSC375, and 2) MMSC691 Human Molecular Genetics for MMSC491

**may substitute** CHEM321/325 and 322/326 Organic Chem I and II lecture and lab for 213/215 and 214/216 listed above

Students are strongly advised to refer to their Degree Audit regularly (accessed via UDSIS) to confirm progressive completion of graduation requirements as designated in the UD online Undergraduate Catalog. Although every effort is made to accurately reflect curriculum requirements here, students are responsible for utilizing the Degree Audit for official confirmation of the status of degree requirement completion. Medical Laboratory Science 21-22 program requirements can be found at [https://catalog.udel.edu/preview_program.php?catoid=63&poid=49293&returnto=16376](https://catalog.udel.edu/preview_program.php?catoid=63&poid=49293&returnto=16376). Please be sure to select the correct academic year for your program requirements.

**Note:** Licensure criteria in New York and California may entail additional requirements. See your advisor for details.

6.24.22