

# Medical Laboratory Science

## Department Information

- **Department Web Site:**  
www.ndsu.edu/alliedsciences/ (<http://www.ndsu.edu/alliedsciences/>)
- **Credential Offered:**  
B.S.
- **Sample Program Guide:**  
[catalog.ndsu.edu/programs-study/undergraduate/medical-laboratory-science/#planofstudytext](http://catalog.ndsu.edu/programs-study/undergraduate/medical-laboratory-science/#planofstudytext) (<http://catalog.ndsu.edu/programs-study/undergraduate/medical-laboratory-science/#planofstudytext>)

## Major Requirements

### Medical Laboratory Science Major

**Degree Type:** B.S.

**Minimum Degree Credits to Graduate:** 120

### University Degree Requirements

1. Satisfactory completion of all requirements of the curriculum in which one is enrolled.
2. Earn a minimum total of 120 credits in approved coursework. Some academic programs exceed this minimum.
3. Satisfactory completion of the general education requirements as specified by the university.
4. A minimum institutional GPA of 2.00 based on work taken at NDSU.
5. At least 30 credits must be NDSU resident credits. Resident credits include credits registered and paid for at NDSU.
6. At least 36 credits presented for graduation must be in courses numbered 300 or higher.
7. Students presenting transfer credit must meet the NDSU residence credits and the minimum upper level credit. Of the 30 credits earned in residence, a minimum of 15 semester credits must be in courses numbered 300 or above, and 15 semester credits must be in the student's curricula for their declared major.

For complete information, please refer to the Degree and Graduation Requirements (<http://catalog.ndsu.edu/past-bulletin-archive/2023-24/academic-policies/undergraduate-policies/degree-and-graduation/>) section of this Bulletin.

### University General Education Requirements

| Code   | Title                           | Credits   |
|--|---------------------------------|-----------|
| <b>Communication (C)</b>                               |                                 | <b>12</b> |
| ENGL 110   | College Composition I           |           |
| ENGL 120   | College Composition II          |           |
| COMM 110   | Fundamentals of Public Speaking |           |
| Upper Division Writing <sup>†</sup>                    |                                 |           |
| <b>Quantitative Reasoning (R) <sup>†</sup></b>         |                                 | <b>3</b>  |
| <b>Science and Technology (S) <sup>†</sup></b>         |                                 | <b>10</b> |
| <b>Humanities and Fine Arts (A) <sup>†</sup></b>       |                                 | <b>6</b>  |
| <b>Social and Behavioral Sciences (B) <sup>†</sup></b> |                                 | <b>6</b>  |
| <b>Wellness (W) <sup>†</sup></b>                       |                                 | <b>2</b>  |
| <b>Cultural Diversity (D) <sup>**†</sup></b>           |                                 |           |
| <b>Global Perspectives (G) <sup>**†</sup></b>          |                                 |           |
| <b>Total Credits</b>                                   |                                 | <b>39</b> |

\*

May be satisfied by completing courses in another General Education category.

†

General education courses may be used to satisfy requirements for both general education and the major, minor, and program emphases, where applicable. Students should carefully review major requirements to determine if specific courses can also satisfy these general education categories.

- A list of university approved general education courses and administrative policies are available here (<http://catalog.ndsu.edu/past-bulletin-archive/2023-24/academic-policies/undergraduate-policies/general-education/#genedcoursestext>).

## Major Requirements

| Code   | Title  | Credits       |
|--|--|---------------|
| <b>Medical Laboratory Science Major Requirements</b>   |  |               |
| CHP 190  | Critical Thinking, Academic, and Professional Skills for the Health Professions  | 3             |
| MLS 200  | Introduction to Medical Laboratory Science   | 1             |
| MLS 435  | Hematology   | 2             |
| MLS 496  | Field Exp/Internship   | 30            |
| Professional education (internship) within an accredited affiliated school of medical laboratory science includes the capstone experience. |  |               |
| <b>Related Courses Required:</b>   |  |               |
| BIOC 460<br>& 460L   | Foundations of Biochemistry and Molecular Biology I<br>and Foundations of Biochemistry I Laboratory                          | 4             |
| BIOL 150<br>& 150L   | General Biology I<br>and General Biology I Laboratory  | 4             |
| BIOL 151   | General Biology II   | 3             |
| BIOL 220<br>& 220L   | Human Anatomy and Physiology I<br>and Human Anatomy and Physiology I Laboratory (May satisfy a general education category S) | 4             |
| BIOL 315<br>& 315L   | Genetics<br>and Genetics Laboratory  | 4             |
| CHEM 121<br>& 121L   | General Chemistry I<br>and General Chemistry I Laboratory (May satisfy a general education category S)                       | 4             |
| BIOL 221<br>& 221L   | Human Anatomy and Physiology II<br>and Human Anatomy and Physiology II Laboratory  | 4             |
| CHEM 122<br>& 122L   | General Chemistry II<br>and General Chemistry II Laboratory  | 4             |
| CSCI 114<br>or TL 116  | Computer Applications (May satisfy a general education category S)<br>Business Software Applications                         | 3             |
| MATH 103   | College Algebra (or higher level; excluding MATH 104)  | 3             |
| MICR 350<br>& 350L   | General Microbiology<br>and General Microbiology Lab   | 5             |
| MICR 463   | Clinical Parasitology  | 2             |
| MICR 460<br>& 460L   | Microbial Pathogenesis<br>and Microbial Pathogenesis Laboratory  | 5             |
| MICR 470   | Basic Immunology   | 3             |
| MICR 471   | Immunology and Serology Laboratory   | 2             |
| STAT 330   | Introductory Statistics (May satisfy a general education category R)   | 3             |
| <b>Select one group of the following:</b>  |  | <b>6-7</b>    |
| Group One:   |  |               |
| CHEM 341<br>& 341L   | Organic Chemistry I<br>and Organic Chemistry I Laboratory  |               |
| CHEM 342   | Organic Chemistry II   |               |
| Group Two:   |  |               |
| CHEM 240   | Survey of Organic Chemistry  |               |
| BIOC 461   | Foundations of Biochemistry and Molecular Biology II   |               |
| <b>Total Credits</b>   |  | <b>99-100</b> |

## Degree Requirements and Notes

- All required courses must be completed with a grade of 'C' or above. All students must maintain a semester GPA of 2.0 or above for each semester in the College. A student who fails to meet this standard for two successive or three non-successive semesters may be terminated from enrollment in the College.
- Completion of the prerequisites does not guarantee a student internship. Selection of interns is competitive. Please consult your MLS advisor for more information.