

# MEDICAL LABORATORY SCIENCE

## Undergraduate Degree Offered

B.S.M.L.S - Bachelor of Science in Medical Laboratory Science

### Areas of Study

Chemistry; Hematology and Hemostasis; Immunohematology (Blood Bank); Microbiology, Parasitology and Mycology; Molecular Diagnostics; Urine and Body Fluid Analysis; Laboratory Operations (including phlebotomy)

## Length of Program

Eleven (11) months - The program consists of 43 semester hours and begins in late May of each year. Graduates are eligible to apply for ASCP board certification as medical laboratory scientists upon completion of the program.

The MLS Program has three phases: **student laboratory** (13 weeks) on the Omaha or Kearney Campus (University of Nebraska at Kearney), **first clinical rotation** (17 weeks), and **second clinical rotation** (17 weeks) at assigned clinical locations. At each phase of the program, students must learn to integrate practice with theoretical knowledge and understanding.

## Description

The MLS Program provides patient-centered educational opportunities, with theoretical knowledge and practical experience in hematology, clinical chemistry, microbiology, immunohematology (blood bank), immunology, molecular diagnostics and management. The program emphasizes laboratory principles and procedures, clinical significance and application, principles and practice of quality assurance, principles of laboratory management and supervision, safety, instructional methods, and computer applications.

Through affiliated programs, students have the option of obtaining their clinical education at one of several clinical affiliate sites (<https://www.unmc.edu/alliedhealth/academics/programs/mls/affiliates.html>). Students are not accepted into the MLS program if clinical experience cannot be guaranteed.

## Degree Requirements

All students must successfully complete the entire curriculum of the MLS Program in order to be considered for the Bachelor of Science degree in Medical Laboratory Science. Students must have completed a total of 120 semester credit hours to qualify for the baccalaureate degree from the University of Nebraska Medical Center.

## Medical Laboratory Science Website (<https://www.unmc.edu/alliedhealth/academics/programs/mls/>)

### Admissions & Tuition

#### Admissions

The mission of admissions in the College of Allied Health Professions is to advance evidence-based recruitment and admissions practices that are inclusive, equitable and balanced with respect to experiences, attributes and metrics to recruit and admit applicants for the purpose of preparing highly competent, collaborative and compassionate professionals dedicated to improving the health and healthcare of all individuals and communities.

For specific MLS admissions, application, and timelines, visit: **MLS Admissions**.

#### Tuition

**UNMC Tuition Guide** (<https://catalog.unmc.edu/general-information/tuition/>)

**Financial Aid Website** (<https://www.unmc.edu/student-success/financial-aid/>)

#### Curriculum

**Note:** Degree Completion Advancement (MLT to MLS) will have a different schedule from what is listed below, but are required to complete the listed courses.

The curriculum includes theory, practical application and technical performance experiences gained through lectures, clinical case studies, writing activities, small group work, independent study, and supervised laboratory experiences. The patient-oriented learning environment includes all areas of a full-service, accredited clinical pathology laboratory.

**Required courses totaling 43 semester hours of credit include:**

Fall		Credit Hours
Completed May-August (Student Laboratory):		
MLS 407	CLINICAL LABORATORY OPERATIONS	2
MLS 408	INTRODUCTION TO CLINICAL HEMATOLOGY	2
MLS 409	INTRODUCTION TO MEDICAL MICROBIOLOGY	2
MLS 410	INTRODUCTION TO CLINICAL CHEMISTRY AND URINALSIS	1
MLS 411	INTRODUCTION TO CLINICAL IMMUNOHEMATOLOGY	1
Completed August-November (Clinical Rotation I):		
MLS 413	CLINICAL ENDOCRINOLOGY AND TOXICOLOGY	1
MLS 414	CLINICAL CHEMISTRY AND URINALYSIS I	2
MLS 416	CLINICAL HEMATOLOGY I	2
MLS 418	CLINICAL MICROBIOLOGY I	2

MLS 420	CLINICAL IMMUNOLOGY, SEROLOGY AND MOLECULAR DIAGNOSTICS	2
MLS 422	CLINICAL IMMUNOHEMATOLOGY I	2
MLS 430	CLINICAL LABORATORY MANAGEMENT I	2
MLS 442	CLINICAL IMMUNOHEMATOLOGY LABORATORY PRACTICUM I	1
MLS 444	CLINICAL CORE LABORATORY PRACTICUM I	1
MLS 448	CLINICAL MICROBIOLOGY LABORATORY PRACTICUM I	1

---

**Credit Hours** **24**

**Spring**

Completed November-May (Clinical Rotation II):

MLS 412	CLINICAL LABORATORY SCIENCE THEORY, APPLICATION AND CORRELATION	5
MLS 415	CLINICAL CHEMISTRY AND URINALYSIS II	2
MLS 417	CLINICAL HEMATOLOGY II	2
MLS 419	CLINICAL MICROBIOLOGY II	2
MLS 423	CLINICAL IMMUNOHEMATOLOGY II	2
MLS 431	CLINICAL LABORATORY MANAGEMENT II	3
MLS 443	CLINICAL IMMUNOHEMATOLOGY LABORATORY PRACTICUM II	1
MLS 445	CLINICAL CORE LABORATORY PRACTICUM II	1
MLS 449	CLINICAL MICROBIOLOGY LABORATORY PRACTICUM II	1

---

**Credit Hours** **19**

---

**Total Credit Hours** **43**

**Medical Laboratory Science Website (<https://www.unmc.edu/alliedhealth/academics/programs/mls/>)**