

# MEDICAL LABORATORY SCIENTIST

Medical Laboratory personnel perform tests and procedures ordered by physicians and surgeons. They analyze bodily fluids, such as blood, urine, and tissue samples. They are solely responsible for both qualitative and quantitative data collection, cell morphology, and blood type of their samples. More than 80% of the information used by a physician to diagnose a patient comes from the clinical lab.

## CAREER DESCRIPTION\*

- » National average salary: \$61,070
- » National projected job growth: 11%
- » Many work in hospital clinical laboratories
- » Utilize automated equipment and computerized instruments

## TYPICAL EDUCATION\*\*

- » Years of school (including undergraduate): 4-5
- » Approximate cost (resident): \$11,120 + fees
- » Average entering GPA: 3.37

## NEARBY SCHOOLS

- » Mercy Medical Center
- » Methodist Hospital Pathology Center
- » University of Nebraska Medical Center

## COMPETITIVE STUDENTS ALWAYS....

- » Maintain a strong GPA to remain competitive
- » Display strong academics in math and science courses
- » Shadow professionals in the field
- » Gain medical experience through volunteer or work

## AREAS OF SPECIALTY

- » Immunohematology technologist (blood bank tech)
- » Clinical chemistry technologist
- » Immunology technologist
- » Microbiology technologist
- » Molecular biology technologist

## WHAT PRACTICING PROFESSIONALS SAY



In the Radiation Laboratory, we count it as a privilege to do everything we can to assist our medical colleagues in the application of these new tools to the problems of human suffering."

-Ernest Lawrence



Modern science is fast moving, and no laboratory can exist for long with a program based on old facilities. Innovation and renewal are required to keep a laboratory on the frontiers of science."

-Burton Richter

\*Data and information from Bureau of Labor Statistics.

\*\*Data and information from UNMC.

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Click the links for requirements from the schools listed below:

[University of Nebraska Medical Center](#)

[Mercy Medical Center- Sioux City, IA](#)

[Methodist Hospital, Omaha, NE.](#)

*Prerequisites vary by program. Students are responsible for ensuring all entrance requirements are met.*

UNMC Prerequisites

S = Spring, F = Fall, M = Summer |

Need a total of 77\*\* credit hours.

Biological Sciences (minimum credits: 16)			
Course	Credits	Semester	Prerequisites
BIOL 1450 - Biology I*	5	F, S, M	High school Biology and Chemistry
BIOL 1750 – Biology II*	5	F, S, M	BIOL 1450
BIOL 2440 – Microbiology	4	F, S, M	High school Biology and Chemistry
BIOL 2140 – Genetics*	4	F, S, M	BIOL 1450, 1750 & CHEM 1140 or 1180
BIOL 3240 – Introduction to Immunology	3	F, S	BIOL 1450, 1750 & 2140
Recommended courses:			
BIOL 2740 – Human Physiology & Anatomy I	4	F, M	High school Biology and Chemistry
BIOL 2840 – Human Physiology & Anatomy II	4	S, M	BIOL 2740
BIOL 3020 – Molecular Biology of the Cell	3	F, S, M	BIOL 2140 & one semester of Gen Chem
BIOL 3830 – Biology of Pathogenic Microorganisms	3	F	BIOL 2440 or 3240 or 2140
BIOL 4140 – Cellular Biology	4	F, S	BIOL 2140, 3020 & CHEM 2210 or 2250

\*Prerequisite courses for required courses.

Recommended Chemistry (minimum credits: 14)			
CHEM 1140 & 1144 – Fund of Chemistry & Lab	5	F, S, M	Math 1310
CHEM 2210 & 2214 – Fund of Organic Chemistry & Lab	5	F, S	CHEM 1140/1144 or CHEM 1190/1194
CHEM 3650 & 3654 – Fund of Biochemistry & Lab	4	F, S	CHEM 2210/2214 or CHEM 2260/2274
OR			
CHEM 1180 & 1184 – General Chemistry I & Lab	4	F, S, M	Math 1320 or CHEM 1140/1144
CHEM 1190 & 1194 – General Chemistry II & Lab	4	F, S, M	CHEM 1180 & 1184 & MATH 1320
CHEM 2210 & 2214* – Fund of Organic Chemistry & Lab	5	F, S	CHEM 1140 & 1144 / CHEM 1190 & 1194
CHEM 3650 & 3654 – Fund of Biochemistry & Lab	4	F, S	CHEM 2210 & 2214 / CHEM 2260 & 2274

-Minimum of 2 upper level (200+ courses required)

Mathematics (minimum credits: 3)			
PSYC 3130 – Statistics for Behavioral Sciences	3	S, F, M	MATH 1120, 1310, 1220 or 1530
SOC 2130 – Social Statistics	3	S, F, M	MATH 1120, 1220, 1130, 1310 or 1530
STAT 3000 – Statistical Methods I	3	S, F, M	MATH 1220
PA 3000 – Applied Statistics	3	S, F, M	MATH 1220
BIOL 4110—Statistics for Biology	4	F	BIOL 1450 & 1750 and MATH 1120, 1310 or 1530
Other statistics courses can fulfill the requirement as well but should be approved by an admissions advisor.			

English Composition (minimum credits: 3)			
ENGL 1150 – English Composition I	3	S, F, M	AP score of 3 or by EPPE exam
ENGL 1160 or 1164 – English Composition II	3	S, F, M	ENGL 1150 or 1154 or AP score of 4 or by EPPE exam

\*\*Need an additional 41 credits of electives to meet minimum requirement; 18 credits of recommended Biology electives listed above.