



Medical Laboratory Technician, AAS Degree - 65 credits

Program Area: Health (Fall 2019)

*****REMEMBER TO REGISTER EARLY*****

Program Description

The Medical Laboratory Technician (MLT) program provides students with entry level knowledge and technical skills required to work in a medical laboratory. MLTs are responsible for completing clinical tests on blood and body fluids that provide important results to physicians for the diagnosis, treatment and monitoring of disease. MLTs use automated instruments and manual laboratory methods to accomplish accurate and timely testing in each department of the clinical laboratory. Skills learned include counting and identifying cells in Hematology, using sophisticated instrumentation to perform chemical analysis, matching patient blood types to donors for transfusion and preparing samples in Microbiology. Students will also gain skills in coagulation testing, urinalysis, molecular diagnostics and blood collection (phlebotomy). MLTs must work with Medical Laboratory Scientists (MLS), physicians, phlebotomists, nurses and other healthcare professionals as they collect patient samples, communicate test results and resolve diagnostic discrepancies. Students should have a strong interest in science and math, strong communication skills, ability to work independently and as part of a team, ability to prioritize workloads and make accurate decisions under pressure, possess moral and intellectual integrity, and good motor coordination. Upon completion of the MLT program, national certification is through the American Society for Clinical Pathology (ASCP) Board of Registry exam. This is generally a requirement for employment. Students who earn the MLT AAS and have a Bachelor's degree in a science field can often sit for the Medical Laboratory Scientist (MLS) certification exam in 2 years. St. Cloud State University offers their Medical Laboratory Scientist program by ITV on the LSC campus for working, certified MLTs. Students who plan to continue in the MLS program should discuss this with their advisor before registering for coursework.

Pre-Program Courses

Course	Course Title	Credits	Term
ALTH 1410	Medical Terminology	1	
COMM 1100 OR COMM 1105	Introduction to Communication OR Interpersonal Communication	3	
ENGL 1106	College Composition I		
PSYC 1135 OR PSYC 1120	Lifespan Developmental Psychology OR General Psychology	3	
SOC 1111	Introduction to Sociology		
BIOL 1140	Human Anatomy and Physiology I	4	
CHEM 1110 OR CHEM 1210	Aspects of Chemistry I OR General Chemistry I (MLS track)	3 (5)	
BIOL 1170	Microbiology	3	

Required Courses

Course	Course Title	Credits	Term
BIOL 1141	Human Anatomy and Physiology II	4	
MLTN 1400	Introduction to Medical Laboratory Techniques and Instrumentation	2	
MLTN 1410	Immunology and Serology	3	
MLTN 1424	Urinalysis and Body Fluids	2	
MLTN 1572 OR MTLN 1574	Phlebotomy for Health Professionals OR Collection Skills (Phlebotomy program)	1 (3)	
ALTH1440 OR PHIL1130	Medical Ethics and the Law OR Ethics (MLS track)	1 (3)	
MLTN 1420	Hematology	3	
MTLN 1422	Medical Microbiology	3	
MTLN 1426	Immunoematology	2	
MLTN 1428	Clinical Chemistry	2	
MLTN 1430	Molecular Diagnostics	1	
MLTN 2420	Special Hematology	3	
MLTN 2422	Special Medical Microbiology	2	
MLTN 2426	Special Immunoematology	2	
MLTN 2428	Special Clinical Chemistry	3	
MLTN 2444	Medical Laboratory Skill Development	2	
MLTN 2500	Medical Lab Technician Seminar	1	
MLTN 2505	Medical Lab Tech Clinical Practicum	11	

Total Credits

65

Courses may require a pre-requisite. Refer to course outline or check with an advisor



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Program Outcomes

- Comply with laboratory safety and compliance procedures and policies.
- Demonstrate knowledge of principles, operations, and maintenance of laboratory equipment and instruments.
- Demonstrate organized work skills resulting in efficient time and material management and utilization.
- Employ quality assurance techniques to monitor procedures, equipment, and competency.
- Correlate laboratory findings to common disease processes.
- Demonstrate standard specimen collection and processing practices employed in medical laboratory professions.
- Model professional behaviors, ethics, and appearance.
- Identify pre-analytical, analytical, and post-analytical variables that affect test accuracy and take appropriate actions.
- Perform mathematical functions as required by laboratory procedures.
- Perform information processing functions in the clinical laboratory.
- Communicate verbally and in written format with colleagues and patients in a professional manner.
- Perform a variety of diagnostic and screening test procedures according to standard operating procedures.
- Relate basic discipline principles (hematologic, chemical, immunologic, etc.) to laboratory test procedures and test results.

Qualified applicants should be aware that program class sizes are limited, which may delay acceptance into the program.

You may be required to complete additional (or less) coursework, dependent upon the results of your Computerized Placement Test (CPT) and/or previous coursework completed or certifications awarded.

General Education courses that are required may be taken prior to entering the program, as long as the specific prerequisites for that course have been met. Please check with your advisor. Prior to taking any MLTN courses, all pre-program courses listed must be completed with a GPA of 2.8 or better. A minimum of "C" is required in all college level courses. All program courses must be completed with a "C" or better to advance to the next semester.

Pre-Program Requirements

Successful entry into this program requires a specific level of skill in the areas of English, mathematics, and reading. Program entry will depend, in part, on meeting the prerequisites listed below.

English/Reading:

- A score of 78 or higher on the reading comprehension portion of the CPT,
- OR Completion of ENGL0955 or its equivalent transfer course or higher with a grade of "C" or better.
- If required, ENGL0955 may **not** be taken concurrently with Semester I coursework

Mathematics:

- A score of 50 or higher on the College Level Math Test,
- OR completion of MATH0470 Algebra II with a grade of "C" or better, or its equivalent transfer course or higher with a grade of "C" or better.
- If required, MATH0470 may **not** be taken concurrently with Semester I coursework.

NOTE: You will need a recent physical examination including current immunizations and current negative Tuberculosis (TB) screening. Current certification in American Heart Association: BLS Healthcare Provider or American Red Cross: BLS/CPR for Healthcare Providers is required before attending clinical internship (MLTN2505 and MLTN2510). ALTH1430 will satisfy this requirement. Background Study approval is required from the State of Minnesota/or Wisconsin. A national criminal background study is required by some clinical sites. Students assigned to a clinical site requiring a criminal background study will be informed of this requirement prior to the start of the clinical experience.



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Program Accreditation

The Medical Laboratory Technician program is accredited by the [National Accrediting Agency for Clinical Laboratory Sciences](#), (NAACLS).

NAACLS is located at:
5600 N River Road, Suite 720,
Rosemont, IL 60018.

[Email](#)

Telephone: 773-714-8880; FAX: 773-714-8886

Program Articulation: St. Cloud State University, Medical Laboratory Science Program (Bachelor of Science)

For more information about the Medical Laboratory Technician AAS including course descriptions, course prerequisites, and potential career opportunities see the [program website](#) OR contact the [professional advising team](#) at 218-733-7601 or the Director of the Medical Laboratory Technician program, [Virginia Haynes](#) at 218-733-5952.



MINNESOTA STATE

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LSC Major ID: 5205

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