

VA St Louis Health Care System and Clinical Facilities

Hospital

We provide health care services at 10 locations serving east central Missouri and southwestern Illinois. Facilities include John Cochran Veterans Hospital in midtown St. Louis and St. Louis VA Medical Center-Jefferson Barracks. We also have 8 community-based outpatient clinics in Washington, Florissant, O'Fallon, and St. Louis, Missouri; and Scott Air Force Base and Shiloh, Illinois. To learn more about the services each location offers, visit the VA St. Louis [health services page](#).

The VA St. Louis Healthcare System is one of the leading health care systems serving Veterans in the VA Heartland Network. We're an innovative care center within the Veterans Integrated Service Network 15 (VISN 15), which includes medical centers and clinics in Missouri, Kansas, Illinois, Kentucky, Indiana, and Arkansas.

Clinical Laboratory

- Pathology and Laboratory Medicine Service (PLMS) at VASLHCS is a large facility employing over 100 technical and professional personnel with the following departments:
 - Central Receiving
 - Anatomic Pathology
 - Transfusion Medicine Service (Blood Bank)
 - Core Clinical Laboratory
 - Clinical Microbiology and Immunology
 - Molecular Testing
 - Ancillary Testing
 - Information Management

- Quality Management

- Accredited by the Joint Commission (TJC), American Association for Laboratory Accreditation (A2LA), American Association of Blood Banks (AABB) and the Food and Drug Administration (FDA)
- Equipped with state-of-the-art clinical instrumentation and a sophisticated interfaced computer information system
- Full-service core laboratory including stat, reference, routine and special testing
- Integrated Pathology residency program
- Performs more than 2.1 million diagnostic tests per year

Medical Laboratory Science (Medical Technology/Clinical Laboratory Science) Program

- Established in 2024
- Pending Accreditation by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Road, Suite 720, Rosemont, IL 60018, 773-714-8880
- Offers a 11-month clinical education program beginning the second week of July.
- Graduates eligible to take certifying examinations offered by the ASCP Board of Certification or any other approved certifying agency

Curriculum

Prerequisites

A student must have completed at least a baccalaureate degree. The degree must be from an accredited program/college and obtained within seven years of submission of this application. Prerequisite courses include **chemistry** (16 semester hours including organic or biochemistry); **biology** (16 semester hours including microbiology and immunology); **mathematics** (1 semester of college level math); **physics and statistics** are recommended.

Coursework

All the science courses have a didactic and a practical component; this enables the student to learn the theory of procedures, gain experience in performing those procedures, and make clinical correlations from the laboratory data which is generated. The student will learn a wide variety of procedures and will be expected to become proficient in the performance and understanding of all commonly performed laboratory procedures.

Introduction to Clinical Laboratory Science MLSC 6100 (2 cr.)

An introduction to clinical laboratory science, including the role of clinical laboratory in patient care, overview of clinical laboratory operations and management, workplace hazards and safety, accreditation and regulation of clinical labs, laboratory information (computer) systems. Theory and practice of the art of phlebotomy. Elucidate basic anatomy and physiology of the blood draw, proper procedure for various collections, legal and ethical issues, importance of confidentiality, pre-analytical factors, safety in handling biological specimens, customer service and patient interactions.

Clinical Hematology & Hemostasis MLSC 6201 (3 cr.)

Clinical Hematology is a study of the origin, development, morphology, physiology, & pathophysiology of the formed elements of the blood and bone marrow. Manual & automated methods of cell counting, differentiation & other special hematological procedures on blood & body fluids used in disease diagnosis. Coagulation (Clinical Hemostasis) is a study of the platelet, vascular, coagulation, & fibrinolytic systems. Testing procedures & the application of the principles of hemostasis as related to disease states & therapeutic monitoring are also included.

Immunology and Serology MLSC6202 (3 cr.)

Theory and practice of basic immunology with emphasis on immune responses (antigen-antibody reactions), immunodeficiency disorders, autoimmune diseases, hypersensitivity, and tumor and transplant immunology. Also discusses the serologic principles and diagnosis of infectious diseases.

Concepts of Quality Management in Clinical Laboratory MLSC 6203 (3 cr.)

An overview of medical ethics, laboratory safety, quality management systems, and quality control. Theory and practice of quality control, quality assurance, quality improvement. Basic statistics, process improvement and the regulatory requirements in clinical laboratories are also included.

Clinical Urinalysis and Body Fluids MLSC 6301 (3 cr.)

Theory of body fluid metabolism and practice of biochemical analyses and

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microscopic examination of urine and other body fluids with corresponding clinical correlations and clinical significance of laboratory test results

Clinical Microbiology MLSC 6302 (3 cr.)

Consists of clinical bacteriology, mycology and virology. The bacteriology component consists of the theory and practice of the isolation and identification of pathogenic bacteria and mycobacteria clinical specimens through cultures, morphology, biochemical and/or serological reactions and their drug susceptibility.

Clinical Chemistry MLSC 6303 (3 cr.)

Theory and practice of analytical biochemistry as applied to physiologic and pathologic states of various organ systems. Emphasizes study of test methodologies and instrumentation for routine and specialized Clinical Chemistry. Statistics are applied to reagent preparation, result determination and quality control. Clinical significance and clinical correlations of test and test results are incorporated. The student applies this theory at the clinical laboratory bench rotations using current diagnostic techniques and instrumentation to correlate laboratory test results to disease processes.

Clinical Immunohematology (Blood Bank) MLSC 6401 (3 cr.)

Study of red cell antigen-antibody systems, antibody screening & identification, compatibility testing & immunopathologic conditions. Also included are donor requirements & blood component preparation & hemotherapy. The clinical immunology component is a study of the principles of the protective & adverse aspects of the cellular & humoral immune responses. Theory & performance of test procedures based on antigen-antibody reactions & clinical significance of test results is included.

Mycology & Parasitology pathology MLSC 6402 (3 cr.)

Mycology and virology deal with the theory and practice of the isolation and identification of fungi, parasites and viruses utilizing morphological, cultural, biochemical and serological methods. With each component, the relation of clinical testing to disease states and epidemiology as it applies to clinical microbiology is also included.

Molecular pathology MLSC 6403 (3 cr.)

Theory & practice of fundamental principles of molecular biochemistry, medical genetics, molecular pathology, performance, evaluation and interpretation of molecular tests. Includes applications and analysis, and the development of competencies in nucleic acid isolation, analysis of nucleic acids and protein, PCR and others molecular biology techniques.

MLS Content Review MSL 6503 (1cr.)

This course revisits and reinforces the fundamental principles and practices originally covered in the Medical Laboratory Technologist program. Our primary focus is on helping you achieve success in the certification examination for medical laboratory science. Through a thorough review we will dive deep into the core concepts and techniques learned during the program. We'll provide a comprehensive overview, ensuring you have a strong foundation. This course is designed to align with the objectives of the American Society for Clinical Pathology (ASCP) certification examination for medical laboratory technologists. You'll receive targeted preparation to enhance your chances of passing this critical exam.

Clinical Practical I & II MSL 6501 and MSL 6502 (18 cr.)

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Under the guidance and supervision of a certified medical laboratory technologist, student will gain hands-on experience in performing a wide range of clinical laboratory procedures. This comprehensive training includes proficiency in blood bank procedures, as well as the execution of high-complexity laboratory tests. Throughout the course, students will develop a deep understanding of various disease processes, enhancing their diagnostic abilities.

Additionally, the student will become proficient in operating and maintaining essential medical equipment, ensuring accurate and reliable results. Students will also learn to evaluate and implement quality control measures.

This program will equip students with the skills needed to collect and analyze patient specimen samples. By the end of the course, students will be well prepared to contribute effectively to the field of medical laboratory science.

Application and Admission

All completed application documents must be received by January 31st for admission consideration into the 11-month program which commences the following July. Materials received after January 31st will not be accepted.

For information or application contact:
Tara Lambert, MHS MLS, QLS (ASCP)^{CM},
MLS Program Director
(239)412-2718

tara.lambert@va.gov

VASTLHCS Medical Laboratory Science
Program

915 N Grand Blvd, Pathology & Lab

Medicine Service (113-JC)

St Louis, MO 63106

(Fax 314-289-7073)

Admission

General Policy

The VA St. Louis Health Care System Medical Laboratory Science Program, St. Louis, Missouri reserves the right to change conditions, provisions & requirements upon reasonable notice as may be necessary to maintain proper standards and objectives of the Program.

Each student must exhibit professional conduct, satisfactory progress in academic standing and practical achievement. The Program reserves the right to require, at any time, the removal of any student whose attitude, conduct, health, scholastic records or practical experience is not in harmony with the policies of the hospital or its best interests.

Application and Admission

A student must have a Baccalaureate degree and thus be eligible for application.

Admission is competitive, with a limited number of student positions available annually. Attendance at an affiliated college or university or completion of prerequisite coursework does not guarantee a position.

Prerequisites

Chemistry

Sixteen (16) hours in Chemistry, including General Chemistry.

Specifications

1. Three (3) courses must include lab experience.
2. One (1) course must be Organic Chemistry or Biochemistry.

Biology

Sixteen (16) hours in Biological Science, including General Biology or Zoology

Specifications

1. Microbiology with laboratory component.
2. Immunology course.
3. Two (2) courses must include lab experience (includes Microbiology lab).

Mathematics

One college level course. Statistics is strongly encouraged.

The content of the Chemistry, Biology and Math courses acceptable towards meeting these requirements would be those applicable towards a major in those fields or in medical technology. Survey or remedial courses do not fulfill these prerequisites.

Any applicant who has attended an educational institution outside of the U.S. is required to submit a transcript evaluation verifying U.S. equivalency. Contact the ASCP Board of Certification (www.ascp.org) for information.

Files on all prospective applicants must be **complete** by January 31st.

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Our evaluation and ranking of prospective students will be made by the Admissions Committee, comprised of Program officials and faculty, on the basis of a personal interview (required), academic standing, academic background (considering coursework taken, withdrawals and repeats), previous experience, letters of reference and personal narrative. **Minimum GPA requirement is 2.75 on a 4.0 scale overall and in the sciences.** Students will be notified of acceptance status in February.

Preference points will be given to veterans and to those students from affiliated colleges or universities. Non-citizens will be considered for enrollment *only* in the absence of qualified American citizens. VA educational programs admit students in accordance with national non-discrimination policies. ([USAJOBS Help Center](#) | [Equal employment opportunity policy](#))

Essential Functions

Essential functions represent the technical or non-academic requirements of the Program that all students must master to successfully participate in the Program. All students and, thereby, all applicants are expected to:

- Possess sufficient vision to easily recognize and read text, numbers and graphics in print and on monitor screens.
- Be able to discriminate patterns and colors in order to identify reagents, media, stained cell preparations and physical properties of various body fluids, as well as delineate fine details of cellular structure and morphology when using a microscope.

- Be able to read, write and communicate in the English language to facilitate effective communication with patients, physicians and all other members of the health care team.
- Possess enough hearing ability with or without auditory aids to understand the normal speaking voice and discern audible instrument alert signals and timing devices.
- Demonstrate sufficient manual dexterity to perform such required tasks as: performing phlebotomy safely and accurately; operating delicate instruments; manipulating tools; handling small containers of potentially biohazardous specimens utilizing sample measuring devices; adequately focusing and manipulating a microscope and using a keyboard.
- Bend, reach, sit and be sufficiently mobile to traverse about the laboratory and hospital corridors, including patient rooms.
- Demonstrate sufficient psychological stability to effectively problem solve and to react effectively in stressful situations. Must be able to recognize emergency situations and take appropriate action. Be flexible, creative and adaptable to change.
- Use intellectual skills to calculate, interpret, analyze, reason, evaluate and explain data, solve problems, make critical judgements and initiate corrective action as necessary.

Academic Standards

Evaluation and Grading

Progress of all students is subject to periodic review & is based on test scores as well as evaluation of overall attitude & laboratory performance. Exams are administered during each lecture series & clinical rotation.

Comprehensive examinations covering all combined material to date are given quarterly.

Satisfactory performance on *each* of these evaluation instruments is necessary in order for the student to maintain an overall “satisfactory” rating. Behavioral objectives are available for all courses; criteria for grading of each course will be stated at the beginning of each course.

Grades which appear on the student’s official transcript will usually be reflective of combined didactic & laboratory performance; the relative emphasis placed on each component will also be stated at the beginning of each course. The following Grading System will generally be in use:

A - Outstanding competence (94-100%)

B - Above satisfactory competence

C - Satisfactory competence (79-86%)

A “B” average is required for all laboratory rotations. A “C” average is required for all didactic courses.

Probation and Dismissal

Failure to achieve or progress to stated competencies in any given lecture series, clinical rotation or quarterly comprehensive examination may result in probation. Dismissal may ensue if these deficiencies are not corrected. *Any evidence of dishonesty is grounds for immediate dismissal.*

Appeals Mechanism

The ordinary appeal process in the matter of academic or professional performance evaluation begins with the student and the instructor and Program Director. If further arbitration is deemed necessary by either party, the Laboratory Director will be involved. If resolution cannot be reached, a third and final

step will include a neutral representative from the affiliating university and/or hospital.

Student Withdrawal

If a student enrolled in the Program decides to withdraw, for academic or nonacademic reasons, this decision must be made in writing to the Program Director. No refunds of Program tuition are applicable since the Program does not charge tuition.

Prerequisites for Graduation

Satisfactory completion of all didactic & clinical assignments is a prerequisite for the issuance of a certificate of graduation. Less than satisfactory grade average will result in loss of graduation; additional laboratory and/or didactic experience may be assigned at the discretion of the Program Director to assist in graduation. Satisfactory completion of a Comprehensive Examination covering *all lecture* and laboratory material is mandatory before a certificate of graduation and/or approval to take certifying examinations will be issued. If deficiencies occur in *any areas* of this final Comprehensive Examination, they must be corrected before the student will be allowed to graduate or challenge any national certification examination.

Certification

All graduates of the VA St. Louis Health Care System Medical Laboratory Science Program are expected to take a certifying examination conducted by a nationally accepted and respected certifying agency. Graduation, however, is not contingent upon certification.

Student Personnel Policies

General

All enrolled students will receive a student handbook at orientation. This handbook details the Program curriculum, evaluation mechanisms, etc.

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Appearance

Neatness, cleanliness and good taste in dress and conduct all contribute to your public image. Professional appearance and conduct coupled with professional competence are important attributes of a good medical laboratory scientist.

All clothing, laboratory coats, shoes, etc. shall be kept clean and tidy. At no time will blue jeans or shorts be allowed as acceptable attire. All items of clothing are to be within the limits of the Hospital dress code. (The written dress code will be distributed prior to the start of the Program.) Laboratory coats and other personal protective equipment will be provided and maintained by the Hospital. Student identification badges will be provided by the Hospital and are to be worn at all times.

Attendance

- A. **General Attendance** at all lectures and practical assignments is mandatory, unless proven proficiency warrants advanced placement.
The *usual* tour of duty will be from 8:00 a.m. to 4:00 p.m. daily, Monday through Friday. Schedules may fluctuate depending on the requirements of each section (i.e., classes may begin as early as 6:30 a.m. or conclude as late as 5:00 p.m.). Schedules are provided to the students in advance.
- B. **Vacation:** Approved vacation will be scheduled for Thanksgiving and Winter Break. Students whose performance is less than satisfactory may be prohibited from taking these scheduled vacations in order to correct their deficiencies.
- C. **Holidays:** Students will be granted time off for all major federal holidays.
- D. **Sick Leave:** Any time or activity which is missed due to illness may need to be made up at the discretion of the Program Director. If a student is ill, notification must be made to both the Program Director and the Clinical Instructor before 7:00 a.m. Proof of illness may be required.

- E. **Personal Leave:** If unusual circumstances arise throughout the course of the year, the student may request "Personal Leave." The decision to grant permission for such an absence will be a joint one, made by the Instructor and the Program Director. Work which would be missed by such absence must be completed in advance. Excused Leave will not be granted Student Content Review Weeks since that material is only presented once and there is no opportunity to make up the work.
- F. **Excused Absences:** Professional meetings, workshops or functions established by the affiliating colleges or universities may be considered excused absences and must be approved by the Program Director.
- G. **Unexcused Absences:** Unexcused absences may justify dismissal of the offending student.

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Service Work Policy

- A. The Medical Laboratory Science Program at VA St. Louise Health Care System provides clinical and didactic education for enrolled students. The students are not to be utilized in place of regular laboratory staff. They are expected to participate in non-testing activities such as specimen preparation and computer entry under direct supervision as part of their clinical experience; however, they are not used to replace other personnel in that function.
- B. Students shall be allowed to participate in the laboratory routine once they have proven proficiency in an area by means of checklists and / or practical exams. Some of the laboratory objectives include the ability to organize and perform testing functions independently. Such independence serves to improve the student's technical skills and develop confidence in their abilities. At no time are students to generate laboratory results without the supervision of the instructor or other designated medical technologist. Students shall not be required to participate in laboratory duties outside of their regular tour of duty.

Expenses

- A. **Application Fee:** There is no fee required for application.
- B. **Tuition:** The Program does not charge tuition. Information regarding scholarships from professional organizations may be distributed from the Program if available. In the event a student withdraws or is dismissed from the Program, no refunds of tuition are applicable since there is no Program tuition charge.
- C. **Book Fees:** All students are required to obtain their own textbooks for use throughout the program.

Medical

- A. Proof of good health must be exhibited by all students who are accepted into the Program, before the Program begins and at their cost. This proof will include a physical examination. Proof of immunity to Measles, Mumps, Rubella, Varicella and Hepatitis B must be provided. All incoming students must provide documentation Tuberculosis screening. Failure to provide such proof may result in termination from the Program. What about flu and covid vaccination.
- B. Federal government regulations mandate a drug free environment. All applicants for government positions may be randomly subject to screens for illegal drugs of abuse. Applicants who refuse to be tested will be denied entrance into VA training programs.
- C. Emergency treatment will be available to the student through the hospital's Employee Occupational Health Service.
- D. Students are strongly encouraged to obtain personal health insurance; *there is no hospital group coverage available to the student.*

Liability Coverage

Students are protected against civil actions brought in any court seeking damages for personal injury, including death, arising from malpractice or negligence during the exercise of duties at Department of Veterans Affairs institutions or on VA assignment at offsite facilities while furnishing professional services.

Accreditation

This program is currently seeking accreditation by the National Accrediting Agency for Clinical Laboratory Sciences, 5600 N. River Road, Suite 720, Rosemont, Illinois 60018. Phone: (773) 714-8880.

General Application Procedure Checklist

- Print out and complete the Application Form. Please attach a list and brief description of any courses you plan to take prior to admittance which do not appear on your official transcript.
 - Official transcripts from EACH of the colleges or universities you've attended, including junior or community colleges, must be emailed or sent directly to the Program at the address listed below. NOTE: Applicants who have attended an academic institution outside of the United States must have their foreign transcript evaluated by an outside evaluating agency. Contact the ASCP Board of Certification for a list of acceptable evaluation agencies.
 - Print out the recommendation form that is included as the last page of the application. Make copies and distribute them to your references. Completed recommendations must be sent directly to the Program by your references or may be enclosed with your application IF they are in signed and sealed envelopes.
 - Return completed forms, including transcripts, to:
**Tara Lambert, MHS MLS, QLS
(ASCP)CM, MLS Program Director
VASTLHCS Medical Laboratory Science
Program
915 N Grand Blvd, Pathology & Lab
Medicine Service (113-JC)
St Louis, MO 63106
(Fax 314-289-7073)
Email – tara.lambert@va.gov**
- * Those students who have completed their application by the closing date of January 31 **and** who meet our stated minimal acceptance criteria will be contacted by the Program Director to schedule a mandatory personal interview. Interviews are generally conducted during late January and early February.
 - * Those students who are accepted into the Program must present evidence of good health by obtaining a physical examination prior to the start of classes. Any medical findings that contraindicate admission to the Program may result in withdrawal of the appointment.
 - * Those students who are accepted into the Program agree to submit to a federal employee criminal background check and fingerprinting as administered through the Hospital Human Resource Management Service. Any findings that contraindicate admission may result in withdrawal of the appointment to the Program.

Application Deadline is January 31st, all items complete