

# **Center for Programs in Allied Health**

## **Medical Laboratory Science Program**

Program Handbook

2023-2024



# INTRODUCTION TO PROGRAM HANDBOOK

This Program Handbook serves as a reference and resource for the students in the Medical Laboratory Science program in the VUMC Center for Programs in Allied Health (CPiAH). The Program Handbook is one of the documents that provides operational guidance to students to assist them in their successful progression through their program. Key documents with policy and procedure information important to students include:



- [Catalog of the VUMC Center for Programs in Allied Health](#) – Source of important policies and other information related to VUMC, the CPiAH, and each program. The catalog is available on the VUMC CPiAH website.
- [Program Handbook](#) – Each CPiAH program provides students its own Program Handbook. The policies and procedures in the Program Handbook are aligned with VUMC, CPiAH, and program policies that appear in the Catalog, as well as other locations. The purpose of the Program Handbook is to provide more specific details about each program, with a particular focus on operational information and procedures.
- [VUMC CPiAH website and Program Website](#) – The Center for Programs in Allied Health has its own website, and that website houses a website for each program within the CPiAH. Students will find important information regarding both the institution and the programs on these sites.

## IMPORTANT NOTICE TO STUDENTS:

All students enrolled in VUMC Center for Programs in Allied Health (CPiAH) programs are bound by all VUMC, CPiAH and Program policies. By enrolling in a CPiAH program, every student acknowledges his or her responsibility to abide by and adhere to all institutional and programmatic policies and procedures. Students therefore have the responsibility of being familiar with the policies and procedures described in the Program Handbook, in the Catalog of the Center for Programs in Allied Health, and on the CPiAH and respective program's websites.

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## **Program Information Provided by the CPiAH Catalog**

The Catalog of the Center for Programs in Allied Health (CPiAH) contains information about Vanderbilt University Medical Center, the Center for Programs in Allied Health, and this program specifically.

Students are advised to refer to the CPiAH Catalog to obtain the following information about this program:

- Program Description
- Certification/Credentialing Information
- Mission, Credo and Goals
- Accreditation and Approvals
- Staff and Faculty
- Program Advisory Committee
- Admission Information
- Academic Program
- Course List & Descriptions
- Student Assessment & Grading
- Satisfactory Academic Progress Requirements
- Graduation Requirements
- Professional Code of Ethic

# INTRODUCTION TO THE DIAGNOSTIC LABORATORIES

## VUMC Department of Pathology, Microbiology, and Immunology

The primary goal of the Diagnostic Laboratories is to provide excellence in patient care services. To accomplish this goal, laboratory testing is provided through the Diagnostic Laboratories located in The Vanderbilt Clinic; Anatomic pathology located in Medical Center North and the Vanderbilt University Hospital (VUH); and point of care testing (POCT) located throughout VUMC. The Department offers a full range of Anatomic and Clinical Pathology services to meet the needs of VUH and the surrounding community.

### **Anatomic Pathology Services**

Neuropathology  
Electron Microscopy  
Histopathology  
Renal Pathology  
Surgical Pathology  
Autopsy Service  
Cytopathology

### **Clinical Pathology Services**

Blood Bank/Transfusion Medicine  
Point-of-Care Testing  
Special Chemistry (Esoteric Chemistry and Toxicology)  
Rapid Response Laboratory/Cytogenetics  
Hematopathology and Flow Cytometry  
Microbiology, including Mycology and Mycobacteriology  
Virology/Immunopathology  
Molecular Infectious Disease  
Core Laboratory (including Chemistry, Urinalysis, Body Fluids, Hematology, and Hemostasis/Coagulation)  
Molecular Diagnostics and Molecular Infectious Disease

## Mission

We support excellence in patient care and safety by providing accurate and timely laboratory information and services to improve the health of individuals and communities we serve. As a leading academic medical center laboratory, we advance knowledge and the development of medical professionals through communication, innovation, research, and education.

## Our Values

Patient-focused service: We demonstrate care and compassion for our patients.

Professionalism: We act with respect, commitment, and integrity, and value each of our colleagues.

Safety: We promote a culture of patient and employee safety.

Quality: We are committed to accuracy, reliability, and continuous process improvement.

Growth and advancement: We advance healthcare through education, discovery, and innovation.

## Our Vision

To be the leader in improving healthcare through innovative laboratory information and services.

The VUMC Diagnostic Laboratories operate 24-hours-a-day, 7-days-a-week to provide accurate, timely test results to support physicians and other providers in the assessment of our patients. The extensive laboratory test repertoire reflects the specialized services/programs at Vanderbilt and the Department's commitment to meeting the clinical needs of our patients and physicians. In addition, each discipline (Clinical and Anatomic) has a medical director with expertise in that specialty. Residents and attending pathologists are available 24-hours-a-day, 7-days-a-week for consultation and/or interpretation of test results for laboratory testing performed on-site or referenced to an outside laboratory.

The Diagnostic Laboratories are accredited by the College of American Pathologists (CAP) and licensed by the State of Tennessee. The laboratories meet all State and federal CLIA guidelines and are included in Vanderbilt Hospital's The Joint Commission accreditation.

## Program of Medical Laboratory Science

The VUMC Program of Medical Laboratory Science was originally sponsored by the Veterans Administration Hospital and graduated its first class in 1954. Sponsorship transferred to Vanderbilt University Hospital in 1968. The program remained with Vanderbilt University Medical Center when the university and medical center split into separate organizations in 2016, and the Program has been in continuous operation since transferring to Vanderbilt. The Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) and is licensed to operate by the State of Tennessee, Department of Health and Environment as required by the Tennessee Laboratory Act. (Contact information for NAACLS: 5600 N. River Road, Suite 720, Rosemont, IL 60018, [www.naacls.org](http://www.naacls.org) 733.714.8880. Contact information for the State Medical Lab Board: <http://health.state.tn.us/Boards/MedLab/>)



# **ADMISSIONS PROCEDURE**

## **Application Process**

Applications are accepted beginning July 1 each year. All application materials must be postmarked by November 1 to meet the priority deadline. A final deadline for all materials by the Friday of the second week in January must be met for consideration.

Completed applications and official transcripts are reviewed by program administrators to ensure the applicant meets the minimum requirements for courses and grade point average (GPA). These requirements are as follows:

1. Possession of a baccalaureate degree or higher or eligible to receive a baccalaureate degree from an academic affiliate school upon completion of the program.
2. Successful completion of at least 90 semester hours (136 quarter hours).
3. A minimum overall GPA of 2.5 or higher and a science (biology and chemistry) GPA of 2.5 or higher.
4. Successful completion of at least 16 semester hours (24 quarter hours) in biological courses, including:
  - a. Microbiology
  - b. Immunology
5. Successful completion of at least 16 semester hours (24 quarter hours) in chemistry courses, including:
  - a. College/General Chemistry I
  - b. College/General Chemistry II
  - c. At least one course in Organic Chemistry or Biochemistry
6. Successful completion of at least 3 semester hours (4.5 quarter hours) of a mathematics course at the College Algebra level or higher

Applicants are encouraged to update science coursework that is greater than seven (7) years old at the time of applying to the program.

All applicants who do not meet the requirements will be contacted in writing. All applicants who meet or will meet the minimum requirements before the program begins in June will be invited for an interview.

AP, CLEP, and survey courses are not recognized or accepted by the program, in accordance with the Tennessee Medical Laboratory Act.

All courses within the Medical Laboratory Science program are taught in English. Students who have completed postsecondary coursework outside of the United States must either have also completed postsecondary coursework in English, whether in the United States or another English-speaking country, or must submit documentation of English competency in reading and writing through a TOEFL evaluation.

## **Interview Process**

All applicants will meet with program administrators to interview. Applicants may also interview with one or two additional individuals who are affiliated with the program and diagnostic laboratory. All interviewers



will complete a standardized evaluation form that relates to the applicant's educational experience, work experience, interest, and knowledge of the Medical Laboratory Science profession, career goals, and personal attributes.

The program administrators will take applicants on a tour of the laboratories and classroom, as available. The program director will discuss the program's schedule, outline, requirements, and outcomes with each applicant. The program director and education coordinator will also explain the student selection process to applicants. Applicants are encouraged to ask questions during the interviews.

## Selection Process

The following are used to determine an applicant's rank for consideration in the program:

1. Overall GPA: The total coursework GPA, excluding physical education courses
2. Science GPA: GPA of all Biology and Chemistry courses
3. Average GPA: Mean of Overall GPA and Science GPA
4. Reference Average: Mean of total reference scores
5. Interview Average: Mean of total interview scores

Applicants are ranked based on the following weights for each calculation:

1. Reference Average has a weight of 1.
2. Interview Average has a weight of 2.
3. Average GPA has a weight of 2.

Therefore, the final rank for an applicant is determined as

$$[(2 * \text{GPA}) + (2 * \text{Interview Score Average}) + (\text{Recommendation Letter Average})] / 5$$

The program administrators prepare a synopsis of each applicant based on information from the application and interview materials to assist in class selection. The Program Advisory Committee (PAC) meets in February to select sixteen (16) students for admission and additional ranked alternates. Alternates are selected based on the applicant pool and are contacted as a position in the program becomes available.

## Priority Selection

Applicants may be provided priority selection into the program if and once **ALL** following requirements are met:

1. All application materials are postmarked by the priority deadline of November 1.
2. The applicant meets all minimum requirements, including the completion of all prerequisite courses before the program begins in June.
3. The applicant completes his/her interview.
4. The applicant has an average GPA (total and science) of 3.75 or greater, an average recommendation score of 3.75 or greater, and an average interview score of 3.75 or greater.
5. The applicant has a total ranked score of 3.75 or greater. Refer to the calculation above for information concerning the ranked score.

Applicants who meet all above criteria will be notified in writing of acceptance into the program following the processing of the results of the interview score and the subsequent calculation of the overall rank. This process will bypass the typical selection of applicants by the Program Advisory Committee in February, thus

providing a “fast track” option in which qualified applicants will be selected for the cohort sooner than the annual program advisory committee meeting and student selection in February.

## **Advanced Placement**

In accordance with the Tennessee Medical Laboratory Act, the Medical Laboratory Science program does not grant credit for advanced standing, nor does it decrease the length of training based on a student’s previous experience or coursework. All students must complete the entire program as scheduled.

## **PROGRAM PHILOSOPHY/MISSION STATEMENT**

The Medical Laboratory Science Program strives to maintain a quality education program to accomplish the following outcomes.

**To provide proficient employees with advanced knowledge and skills for diagnostic laboratories at VUMC and other healthcare organizations.**

Students perform high throughput and high complexity testing on a diverse patient population after training in VUMC’s diagnostic laboratories. Students become familiar with VUMC policies and procedures, preparing them to begin training as employees immediately after graduation. This integration of students in the VUMC laboratory environment decreases the expenses VUMC pays in recruitment and employee selection. Students who choose to work at other health care organizations after graduation apply the knowledge and experiences from the program to work in a fast-paced environment of varying complexities.

**To provide a stimulating learning environment for students and laboratory staff.**

Being involved in laboratory education provides an atmosphere in which laboratory professionals are pushed to maintain knowledge of current theory and testing procedures. Employees are challenged to investigate new and emerging trends in the field, positively affecting patient care. Interacting with students also allows employees to improve their skills in communication and instruction.

**To maintain a source of professionals who constantly and consistently bring new knowledge into the laboratory field to drive change in health care.**

Stagnation, job dissatisfaction, and burnout are reduced in the laboratory by providing a constant source of new professionals to alleviate staffing issues. These new professionals are motivated to learn and support patient care and laboratory testing. Laboratory professionals engage and share knowledge with students, ensuring that the students will have current, practical knowledge upon entering the workforce. Students also participate in seminar activities that prepare them to be leaders in their selected focus after graduation. Graduates of the program are encouraged to participate in professional organizations and other activities to influence the direction and remain on the forefront of their chosen career.

## PROGRAM GOALS AND OBJECTIVES

The Medical Laboratory Science Program at Vanderbilt University Medical Center bases its educational program on principles essential to the preparation of students to achieve the ideals of the profession. The VUMC Medical Laboratory Science program strives to instill in each student:

- The knowledge, skills, and professional attitude necessary for accurate and proficient measurement of laboratory analytes.
- The concern for others which supports quality patient care and cooperation with fellow employees.
- The desire to strive for new knowledge and progress and to accept changing trends in the profession.
- The capacity to accept leadership roles in their departments, including management or education.
- Interest in the growth and development of medical laboratory science as a profession.

These goals are accomplished through students' ability to do the following by the end of the program:

- Perform and interpret medical laboratory tests.
- Troubleshoot testing and instrument issues.
- Participate in laboratory assessment and improvement.
- Demonstrate professional behavior.
- Discuss physiological processes in normal and disease states.
- Identify limitations to testing and interpretation.

## HONOR CODE

The Vanderbilt system holds that there is an agreement of mutual trust between students and faculty. Each student promises integrity in work submitted and the instructors, in turn, presume the honesty of the student. The honor system provides an atmosphere of trust essential to the fulfillment of the program's purpose of educating individuals of professional character. The members of the Vanderbilt community regard a breach of honor as a serious breach of their principles, their purpose, and the academic enterprise. As such, any breach in the Honor Code is cause for immediate dismissal from the program.

All work submitted as part of course requirements is assumed and expected to be the product of the student submitting it unless credit is given by the student using proper footnoting and bibliographic techniques in APA format or as prescribed by the course instructor. Cheating, plagiarizing, falsifying results of study, or any action designed to deceive any member of the faculty are prohibited. These activities will not be accepted whether they are intentionally or unintentionally performed. The system applies not only to examinations but also to all work handed in or reported, such as papers, lab reports, solutions to problems, practical exams, etc. **Each instructor has the prerogative to include or exclude what will be covered by the honor code in the course. However, all assignments are to be the work of each individual student unless it is specifically designated in writing as a group assignment.**

Without written designation otherwise, the Honor Code applies to the following:

- Student assignments are prepared solely by the student and have not been previously submitted for a grade in any other course, whether at Vanderbilt University Medical Center or elsewhere, or

otherwise published. Similarly, students are not allowed to assist or provide answers to assignments.

- Assignments are not to be discussed with others.
- Take-home assignments are not to be completed with input from others or with the use of class or outside materials unless otherwise stated.
- Saving, copying, or using examinations or other assessment materials from previous sections of the class is prohibited. This includes posting assessment questions to online sites, such as Quizlet or Chegg.
- Electronic, paper, or internet resources are not to be used unless specifically allowed. If allowed, the student must be prepared to show or notate sources to instructor.
- Falsification of documents, including checklists, preventative maintenance or quality control sheets, results, attendance and time sheets, and other materials, is prohibited.
- Students are required to report a known or suspected violation of the Honor Code to the program director.
- Plagiarism of any student assignment or portion of the assignment without proper citation is prohibited.

It is the duty of all students to show their appreciation of the trust placed in them not only by their own conduct but also by their insistence on the absolute integrity of their fellow students. It is, therefore, the duty of every student to behave in a manner that will discourage his or her fellow students from violating the honor code.

## **PROBATION**

### **Academic Probation Policy**

Any student that does not achieve a minimum grade of 75% but achieves a grade of at least 70% in any Student Didactic or Clinical Rotation course will be placed on Academic Probation for that course.

As part of the Academic Probation, the student must independently review the presentations and other materials from the deficient coursework for a period of no more than two (2) weeks. During this time, the student will meet with the program director, education coordinator, and the student support services manager to identify issues and discuss ways to improve their grades. The student will not be given time away from the typical program coursework or classes to complete this remedial work. The student is not allowed to be tardy or absent during this two-week period unless an emergency or documented illness verified by a medical excuse justifies this tardy or absence. At the end of the two-week review period, the student will take a comprehensive exam based on the material from the deficient course. The grade from this comprehensive exam will replace the previous course grade. If the grade is less than 75%, the student will be dismissed from the program.

If a student does not achieve a minimum grade of 75% in a second course, a clinical rotation, or a behavioral evaluation, s/he is dismissed from the program.

## **Behavioral Probation Policy**

A student will be placed on Behavioral Probation if s/he earns less than 75% on a behavioral evaluation (see p. 20). If s/he earns less than 75% on a second behavioral evaluation or is already on academic probation, s/he is dismissed from the program.

## **Causes of Immediate Dismissal**

The following are causes for immediate dismissal, superseding the above protocol:

1. Unauthorized removal, destruction, or theft of any property of the program, hospital, employees, or patients. This includes physical property, including, but not limited to, instruments, reagents, and exams. This also includes all course and assessment materials, e.g. presentations, study questions, quizzes, and exams, found in the online learning management system, unless given specific approval for removing these materials is provided in writing by the instructor of the course.
2. Copying, pasting, printing, or sharing assessments, graded or ungraded, with current students or others, including quizzes, study questions, or exams from the online learning management system or in hard-copy form.
3. Breach of the program's Honor Code policy.
4. The use or unauthorized possession of any intoxicants, illegal drugs, or narcotics on hospital grounds or impairment or intoxication from alcohol or drugs while performing program activities.
5. The use, possession, or distribution of firearms, explosives, fireworks, or knives on hospital grounds.
6. Willful submission of false information or alteration of any records or reports.
7. Academic dishonesty, including, but not limited to sharing or receiving answers to study questions or other assessments, cheating, forgery, and plagiarism.
8. Disclosure of confidential information or discussion of any patient information with unauthorized personnel.
9. Negligence or misconduct in the performance of duty.
10. Disobedience or insubordination (any complaint concerning an employee or instructor should be brought to the attention of the program director, education coordinator, or the medical director immediately.)
11. Drawing blood, performing procedures, or providing medication to a patient without the order of a physician.
12. Abusing a patient, employee, or fellow student. This includes physical, verbal, and emotional abuse.
13. Submission for publication of any material relating to the clinical education experience at Vanderbilt without prior written approval of the affiliate school and Vanderbilt.

## Academic Probation Notice

### NOTIFICATION OF ACADEMIC PROBATION

Date:

To: \_\_\_\_\_

This is to inform you that, due to your final grade of \_\_\_\_\_ in the \_\_\_\_\_ Student Didactic course/Clinical Rotation, you are officially on academic probation.

You will have up to two (2) weeks to independently review the course materials from this didactic course or clinical rotation. You will not be given time away from the program's regular coursework or classes to complete this remedial work. You may not be tardy or absent during this two-week period. This two-week period will end on \_\_\_\_\_ (DATE). You will complete a comprehensive exam on or before this date. The grade from this exam will replace your current grade for the course. If you earn below a 75% in any future didactic course or clinical rotation, you will be dismissed from the program.

Should you fail to achieve an overall grade of 75% on the comprehensive exam, you will be dismissed from the program. You remain responsible for all fees owed to the Medical Laboratory Science program.

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Date

Your signature indicates that you have been informed and understand the responsibilities associated with this standing of academic probation.

\_\_\_\_\_  
Program Director

\_\_\_\_\_  
Date

\_\_\_\_\_  
Center Representative

\_\_\_\_\_  
Date

## Behavioral Probation Notice

### NOTIFICATION OF BEHAVIORAL PROBATION

Date:

To: \_\_\_\_\_

This is to inform you that, due to

\_\_\_\_\_,  
you are officially on behavioral probation.

If any second behavioral evaluation is below 75%, you will be dismissed from the program.

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Date

Your signature indicates that you have been informed and understand the responsibilities associated with this standing of clinical/behavioral probation.

\_\_\_\_\_  
Program Director

\_\_\_\_\_  
Date

\_\_\_\_\_  
Center Representative

\_\_\_\_\_  
Date

## PROGRAM FACILITIES

Facilities for the program include office space in The Vanderbilt Clinic (TVC), a student classroom and laboratory in Light Hall (LH) and the Vanderbilt Medical Laboratories, and assigned spaces in The Vanderbilt Clinic lab, One Hundred Oaks (OHO) lab, and Vanderbilt Medical Laboratories. Student learning takes place in all mentioned sites with didactic and student laboratory exercises being performed in Light Hall and the Vanderbilt Medical Laboratories, and practical learning, or clinical rotations, being performed in The Vanderbilt Clinic, One Hundred Oaks, and the Vanderbilt Medical Laboratories. The program also uses various departmental conference rooms as needed. Books and other reference materials are available in the program director's office and classroom. A computer lab and student lounge are in Light Hall.

The Center for Programs in Allied Health (CPiAH) administrative team has office spaces on the third floor of Light Hall.

## ACADEMIC PROGRAM

The Program of Medical Laboratory Science accepts one class per year that begins in June and continues until the end of June the following year. The course of study includes lectures, laboratory exercises, and clinical rotations.

The program is offered as a full-time, on-campus program that meets during typical dayshift hours, e.g. between 7 am and 4:30 pm. As an exception to these times, one four-day portion of the Blood Bank clinical rotation is performed from 1-9 pm.

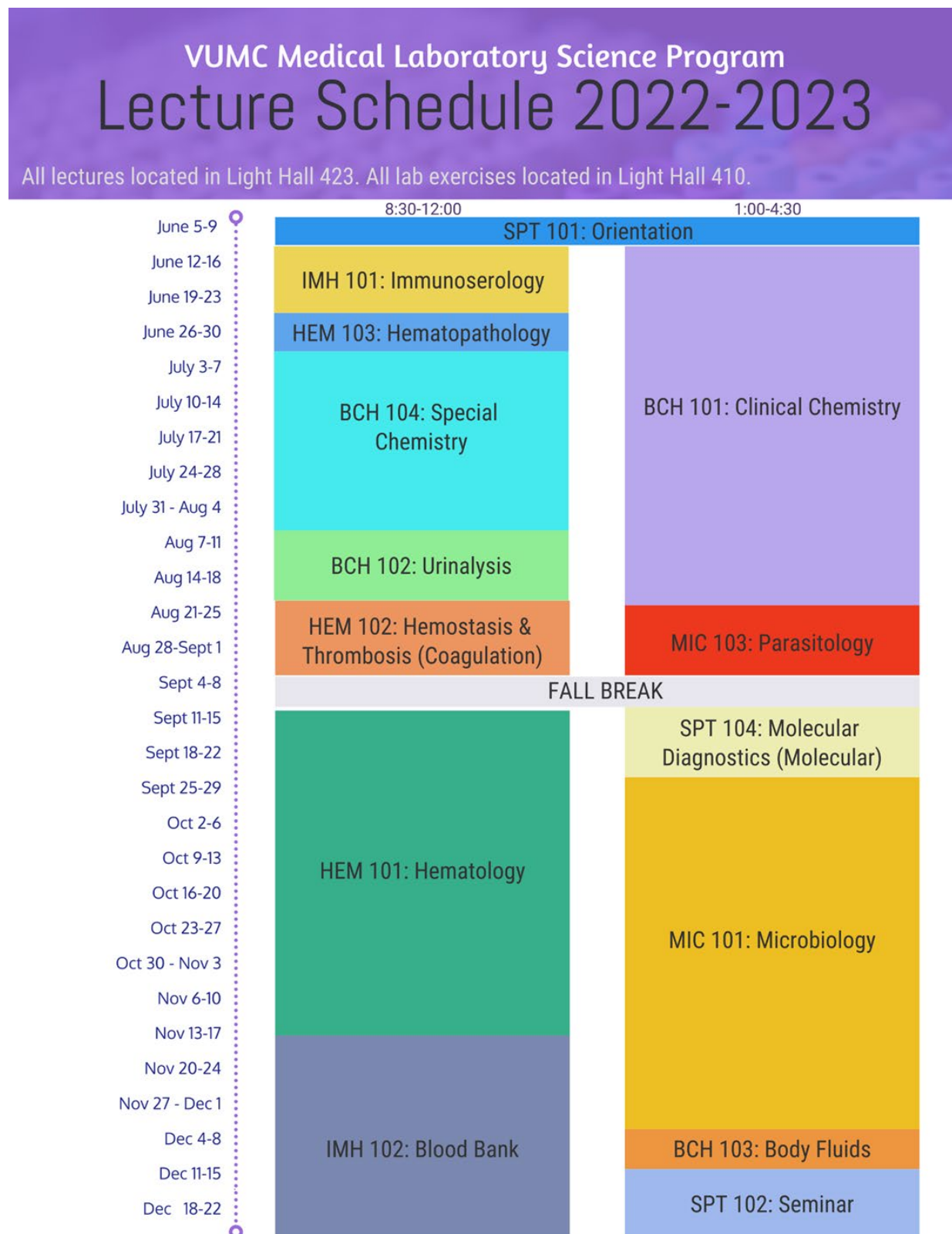
The first half of the program uses lectures and laboratory exercises to introduce students to physiology, pathophysiology, biochemical markers, and test principles and interpretation. The first week of class consists of orientation and is followed by seven months of lectures in diagnostic laboratory-related courses and seminar, which includes topics such as management, education, and professional development.

The second "half", or six months, of the program consists of the laboratory practicum, or clinical rotations. During this time students work alongside medical laboratory professionals to learn instrumentation, the application of testing methods, handling of patient samples, and reporting results. Students learn the practical application of the information learned from the first half of the program during this time.

**In addition to other assessments throughout the year, students must pass a final comprehensive exam before graduating.**



## Sample Student Didactic Schedule



## Sample Clinical Rotation Schedule

Clinical Rotation Schedule 2023-2024

Date																	
Week of:																	
01/03-01/06	BB--VA	Chem	BB--2	VIP	UA	Hematol	Sp Chem	Phleb	Micro--VA	Sp Chem	Micro	Chem	MD/MIDL	Coag	Hematolo	VIP	
01/09-01/13	BB--2	Chem	BB--VA	Hemepa	MD/MIDL	Hematol	Sp Chem	BF	Micro--VA	Sp Chem	Micro	Chem	Coag	Hemepath	Hematolo	Phleb	
01/16-01/20	BB	Chem	BB	Sp Chem	Hemepa	Hematol	Hemepath	VIP	Micro	VIP	Micro--VA	Chem	BB--VA	Micro	Hematolo	Sp Chem	
01/23-01/27	BB	UA	BB	Sp Chem	Hemato	Chem	BF	Hematol	Micro	Phleb	Micro--VA	Coag	BB--2	Micro	Chem	Sp Chem	
01/30-02/03	Micro	Sp Chem	Phleb	MD/MIDL	Hemato	Chem	BB--VA	Hematol	Sp Chem	BB--2	Coag	Micro	BB	Micro--VA	Chem	BF	
02/06-02/10	Micro	Sp Chem	Hemepa	UA	Hemato	Chem	BB--2	Hematol	Sp Chem	BB--VA	Hemepath	Micro	BB	Micro--VA	Chem	Coag	
02/13-02/17	Micro	VIP	Chem	Phleb	BF	UA	BB	Coag	Hematolo	BB	VIP	Micro	Hematology	BB--VA	Micro--VA	Chem	
02/20-02/24	Micro	Coag	Chem	BF	Phleb	Hemepath	BB	Hemepath	Hematolo	BB	UA	Micro	Hematology	BB--2	Micro--VA	Chem	
02/27-03/03	VIP	Hemepa	Chem	BB--VA	VIP	Micro	Micro	BREAK	Hematolo	Hemepath	BB--2	UA	Hematology	BB	Micro	Chem	
03/06-03/10	BF	Hematol	MD/MIDL	BB--2	Chem	Micro	Micro	Sp Chem	Phleb	Chem	BB--VA	Sp Chem	BREAK	BB	Micro	Hematolo	
03/13-03/17	Coag	Hematol	VIP	BB	Chem	Micro	Micro	Sp Chem	VIP	Chem	BB	Sp Chem	Micro--VA	MD/MIDL	BB--VA	Hematolo	
03/20-03/24	UA	Hematol	BF	BB	Chem	Micro	Micro	MD/MIDL	Coag	Chem	BB	BREAK	Micro--VA	BREAK	BB--2	Hematolo	
03/27-03/31	Hemato	BREAK	Micro	Micro	BB--VA	Sp Chem	UA	Chem	BB--2	Coag	Sp Chem	Hematol	Micro	Chem	BB	MD/MIDL	
04/03-04/07	Hemato	BF	Micro	Micro	BB--2	Sp Chem	BREAK	Chem	BB--VA	MD/MIDL	Sp Chem	Hematol	Micro	Chem	BB	BREAK	
04/10-04/14	Hemato	Phleb	Micro	Micro	BB	VIP	Coag	Chem	BB	BF	MD/MIDL	Hematol	VIP	Chem	BREAK	BB--VA	
04/17-04/21	Chem	MD/MIDL	Micro	Micro	BB	BREAK	Hematol	UA	BB	Hematolo	Chem	VIP	Sp Chem	Sp Chem	VIP	BB--2	
04/24-04/28	Chem	Micro	UA	Coag	BREAK	BB--VA	Hematol	Micro	BREAK	Hematolo	Chem	BB--2	Sp Chem	Sp Chem	Phleb	BB	
05/01-05/05	Chem	Micro	BREAK	BREAK	Coag	BB--2	Hematol	Micro	Hemepath	Hematolo	Chem	BB--VA	BF	Phleb	Hemepath	BB	
05/08-05/12	BREAK	Micro	Hematol	Hematol	Sp Chem	BB	MD/MIDL	Micro	Chem	BREAK	Phleb	BB	Chem	UA	BF	Micro--VA	
05/15-05/19	MD/MIDL	Micro	Hematol	Hematol	Sp Chem	BB	Phleb	Micro	Chem	UA	BREAK	BB	Chem	BF	Coag	Micro--VA	
05/22-05/26	Hemepa	BB--VA	Hematol	Hematol	Micro	Phleb	VIP	BB--2	Chem	Micro	BF	Hemepa	Chem	VIP	MD/MIDL	Micro	
05/29-06/02	Sp Chem	BB--2	Sp Chem	Chem	Micro	MD/MIDL	Chem	BB--VA	BF	Micro	Hematolo	Phleb	UA	Hematolo	Sp Chem	Micro	
06/05-06/09	Sp Chem	BB	Sp Chem	Chem	Micro	Coag	Chem	BB	MD/MIDL	Micro	Hematolo	BF	Phleb	Hematolo	Sp Chem	UA	
06/12-06/16	Phleb	BB	Coag	Chem	Micro	BF	Chem	BB	UA	Micro	Hematolo	MD/MIDL	Hemepath	Hematolo	UA	Hemepath	
06/19-06/23	Review	Review	Review	Review	Review	Review	Review	Review	Review	Review	Review	Review	Review	Review	Review	Review	
26-Jun	GRADUATION																
MD/MIDL Rotation: Students will report to Molecular Diagnostics (Genetics) on Monday of the rotation and Molecular Infectious Disease Tuesday-Friday																	
Hemepath: Students will report to Cytogenetics at 8 am at OHO on Monday, Specimen Receiving at 8 am Tuesday, and Hemepath at 7:30 am Wednesday and Thursday.																	

## Minimum Competencies

Upon completing the MLS program, the student will be able to demonstrate the following entry-level competencies:

- Develop and establish procedures for collecting, processing, and analyzing biological specimens
- Perform analytical tests on blood, body fluids, cells, and related substances
- Integrate and relate data generated by the various clinical laboratory departments while making decisions regarding possible diagnostic information and discrepancies
- Confirm abnormal results, verify and execute quality control procedures, and develop solutions to problems concerning the generation of laboratory data
- Make decisions concerning the results of quality control and quality assurance measures and instituting proper procedures to maintain accuracy and precision
- Establish and perform preventive and corrective maintenance of equipment and instruments as well as identify appropriate sources for service
- Develop, evaluate and select new techniques, instruments and methods in terms of their usefulness and practicality within the context of a given laboratory's personnel, equipment, space and budgetary resources
- Demonstrate professional conduct and interpersonal skills with patients, laboratory personnel, other health care professionals, and the public
- Establish and maintain continuing education as a function of growth and maintenance of professional competence
- Provide leadership in the education of other health care professionals and the community
- Exercise basic principles of management, safety, and supervision
- Apply principles of educational methodologies and current information systems
- Demonstrate and promote patient care

## Comprehensive Final

Each student must pass a comprehensive final exam as a requirement for graduation. This exam is a multiple-choice, computer-based exam with content and question weights similar to the Board of Certification (BOC) exam. The purpose of this comprehensive final exam is to ensure that students have the knowledge needed for certification and to prepare students for national certification exams. Students must earn at least a 75% to pass the exam and will have three attempts in which to do so. The first attempt for the comprehensive final exam will be scheduled by the program director and administered to the entire class. Any students who do not pass on the first attempt will individually schedule their second and, if needed, third, attempt(s) with the program director or education coordinator. Once the student has received a score of 75% or greater, s/he will not need to complete any additional attempts.

Should the student not pass the comprehensive final after the third attempt, the Program Advisory Committee will meet to review the student's academic performance throughout the year. This review will result in either the student being dismissed from the program or in an extension of training in the area(s) of concern. The decision made by the Advisory Committee may be appealed according to the Center for Programs in Allied Health's Appeals Policy. Please refer to the CPiAH Catalog for more information regarding the Appeals Policy.

# STUDENT ASSESSMENT

## Evaluation of the Student

The National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) and the Accrediting Bureau of Health Education Schools (ABHES) require that approved schools maintain detailed records of the students' progress throughout the year. These records are based on the following parameters: Theory, Technical Performance, and Behavior. These areas are assessed by the following methods:

### Performance in the Lecture/Student Laboratory

- **Lecture:** The lecture portion of the class focuses on physiology, pathophysiology, and related theory. The student is responsible for completing and understanding all lecture objectives, information presented in lecture and/or through handouts, and all assigned reading. Assessment will be made by exams, quizzes, study questions, case studies, and homework. Unless stated otherwise, all assignments, including open-book assignments, are individual assignments and not to be discussed among students. **Refer to the Honor Code for more information.**
- **Student Laboratory:** The laboratory portion of the classroom experience focuses on learning proper laboratory techniques, identification of formed elements and reactions that are useful in clinical diagnosis, and the correlation of theoretical knowledge with application. The student is expected to answer all student laboratory objectives as well as perform and demonstrate an understanding of all procedures and results. Assessment will be performed through the testing of unknown samples, practical examinations, written examinations, and performance.

### Performance in the Clinical Rotation

This portion of the program is designed for the application of the theory and practical, or technical, aspects of each course. The student is responsible for all objectives and procedures covered in the lecture/student lab and the clinical rotation. The student is evaluated at the end of each rotation. The student is expected to answer all objectives, perform and demonstrate an understanding of all procedures presented, and complete all reading assignments. The student is expected to assimilate into the work environment, though supervision by a licensed medical laboratory scientist is required when performing and reporting patient testing. The student will be assessed in:

- **Theory and Technical Performance:** This includes study questions, quizzes, exams, and checklists.
- **Performance Evaluation:** This evaluation is customized for each department and is used to assess the student's ability to perform entry level procedures and routine operations in the laboratory.
- **Behavioral Evaluation:** This is used to assess skills in the professionalism domains. The student must score a minimum of 75%. A score of less than 75% will result in the student being placed on behavioral probation (see p.12). The areas assessed in the Behavioral Evaluation are as follows:

# Behavioral Evaluation Template

## Program of Medical Laboratory Science Clinical Rotations Behavioral Evaluations

Objectives: Initiative, Judgment and Concern for the Patient

A. Demonstrate initiative in studies and laboratory performance by preparing for assignments, asking relevant questions, assisting with approved tasks and making constructive use of time.

B. Demonstrate ability to assemble information to reach logical conclusions and use that information to make sound decisions.

C. Displays a concern for the patient in handling of specimens, performance of tasks and communication with coworkers.

<b>Initiative and Judgment</b>	<b>&lt;7.5 Below Expectations Unsatisfactory Requires conference</b>	<b>7.5-7.9 Meets Minimum Expectations</b>	<b>8.0 – 8.9 Above Average</b>	<b>9.0 – 10 Exceeds Expectations</b>	<b>Score</b>
<b>A. Initiative</b>	Performs delegated responsibilities but requires constant prompting and guidance. Unmotivated or disinterested.	Usually accepts and performs delegated responsibilities with occasional prompting.	Performs responsibilities independently. Is willing and able to assume additional responsibilities when asked.	Consistently a self starter who completes tasks and takes initiative to help others without being asked.	
<b>B. Judgment to assemble information and reach logical conclusions</b>	Often makes inaccurate conclusions. Requires a great deal of assistance from instructor to analyze situations to reach logical conclusions.	Usually logical in approach to problem solving. Makes an occasional inaccurate decision.	Can discriminate between relevant and irrelevant details to arrive at sound conclusions. Uses critical thinking skills with minimum instructor guidance.	Consistently makes correct conclusions, even for the most difficult problems. Applies critical thinking skills to all patient situations.	
<b>C. Concern for the Patient</b>	Frequently careless in handling patient specimens. Does not communicate or document complete information.	Shows some concern for patient. Usually conscientious in handling patient specimens. Few errors in documentation. Usually communicates complete information. Shows concern for patient.	Conscientious in handling patient specimens, documentation and communication of important information. Few errors. Shows sincere concern for patient.	Conscientious in handling patient specimens, documentation and communication of important information. Goes out of his/her way to show concern for the patient.	

Objectives: Dependability

A. Demonstrate ability to accomplish required tasks and assignments accurately and within the allotted time frame.

B. Complies with program attendance policies by consistently arriving on time, returning from breaks on time and notifying appropriate personnel when leaving the work area or in the event of a necessary absence.

C. Remains on the job until assigned task is completed. Does not let breaks, lunch, people or extraneous factors interfere with completion of tasks.

<b>Dependability</b>	<b>&lt;7.5 Below Expectations</b>	<b>7.5-7.9 Meets Minimum Expectations</b>	<b>8.0-8.9 Above Average</b>	<b>9.0 – 10 Exceeds Expectations</b>	<b>Score</b>
<b>A. Accomplishment of required tasks and assignments</b>	Rarely accomplishes assignments in allotted time frame.	Usually dependable and prepared for assignments	Consistently accomplishes the required assignments in the allotted time.	Always accomplishes the required assignments in the allotted time. Frequently accomplishes more than required.	
<b>B. Attendance and Punctuality</b>	Rarely complies with school/lab policies. Frequently tardy and or absent. Frequently takes excessive lunches and breaks.	Complies with policies only after counseling. Occasionally tardy and or absent. Rarely takes long lunches or breaks.	Complies with policies. Punctual with good attendance record. Rare absence or tardy. Does not take unapproved long lunches or breaks.	Complies with policy. Outstanding record of attendance and punctuality. No absences. Does not take unapproved long lunches or breaks. Complies with policy.	
<b>C. Productive use of clinical rotation time</b>	Frequently away from assigned area.	Usually present in assigned area.	Consistently present in assigned area. Rarely not available.	Superior. Spends no unauthorized time away from assigned area.	

Objectives: Attitude

A. Accepts criticism as constructive, positive and follows up with prompt consistent improvement. Works and communicates effectively with others. Shows ability to handle difficult situations in a reasonable manner. Contributes and cooperates to realize group goals.

B. Demonstrates professional integrity by complying with all hospital and program regulations; admits to errors and limitations and practices

professional ethics by demonstrating an understanding of confidentiality and legalities concerning patient information and HIPAA regulations.

Attitude	<7.5 Below Expectations	7.5-7.9 Meets Expectations	8.0-8.9 Above Average	9.0 – 10 Exceeds Expectations	Score
<b>A. Toward supervisors, school policies and safety issues</b>	Reluctantly considers suggestions and constructive criticism. Frequently must be reminded of hospital and program policies.	Usually accepts and incorporates constructive criticism and suggestions. Is receptive to supervision.	Follows hospital and program policies with occasional reminder. Accepts and incorporates suggestions and constructive criticism. Complies with hospital and program policies.	Eagerly accepts and incorporates suggestions. Appreciates assistance by the instructor. Always complies with hospital and program policies.	
<b>B. Toward faculty/employees, other students and visitors.</b>	Rarely tactful or a team player. Does not display a professional attitude.	Usually tactful and considerate of others. Usually a team player and displays a professional attitude. Sensitive and considerate to the needs of others.	Functions as a team player. Displays a professional attitude most of the time.	Is a team player and displays a professional attitude. Skillful in adapting to working with others. Inspires others. An outstanding team player and projects a professional image.	

Objectives: Quality of Work

A. Demonstrates competency in performing tests accurately, with few errors and with minimal supervision.

B. Demonstrates an ability to provide complete and legible documentation of activities on worksheets and logs.

Quality of Work	<7.5 Below Expectations	7.5-7.9 Meets Expectations	8.0-8.9 Above Average	9.0 – 10 Exceeds Expectations	Score
A. Competency	Frequent errors. Requires constant supervision.	Few Errors. Requires occasional supervision.	Commendable work. Rare Errors. Requires minimal supervision.	No errors. Always performs with 100% accuracy. Requires minimal supervision for approved tasks.	
B. Documentation	Documentation is incomplete and hard to read.	Documentation is usually complete and legible.	Documentation is complete and legible.	Documentation is complete and legible. Includes additional details to assist in future problem solving.	

Would you feel comfortable working with this student as a fellow employee? If not, or if you have reservations, please leave comments.

- \* Yes, with no reservations
- \* Yes, with more experience
- \* Yes, with reservation(s)
- \* It would be a risk
- \* No, absolutely not



## STATEMENT OF ESSENTIAL FUNCTIONS

Students must possess, and maintain throughout their time in the program, the ability to perform and interpret routine laboratory procedures. The actions required to do so include, but are not limited to:

- Physical capability and manual dexterity required to perform laboratory procedures, including repetitive hand motions, such as pipetting and typing, and lifting of materials up to 25 pounds
- Differentiation of colors and images for interpretation of colorimetric reactions and cellular morphology
- Effective communication through written and verbal language with instructors, classmates, medical laboratory personnel, patients, physicians, and other health care professionals
- Utilize critical thinking and deductive reasoning through application of previously-learned information and assimilation of new information
- Perform tasks without outside guidance or assistance within given time constraints and within changing environments

If a student is unable to perform any function during the program without assistance or accommodations, s/he must self-identify the issue to the program director or education coordinator in writing. Once the student has identified the issue, the program director and education coordinator will work with the student, the Center for Programs in Allied Health, and other necessary parties to provide reasonable accommodations for the student.

## EVALUATION OF THE PROGRAM

A vital part of the VUMC Medical Laboratory Science Program is a continual review and evaluation of the curriculum and techniques used in teaching. Evaluation of the program is accomplished in the following manner:

- The program participates in the peer review and accreditation process sponsored by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) and the Accrediting Bureau of Health Education Schools (ABHES). These organizations require a periodic self-study to assess program compliance with established guidelines for the operation of a training program. This also involves peer review of the self-study and an on-site visit for continued accreditation. The program also maintains compliance with the regulations mandated by the Tennessee Laboratory Act, which includes periodic site inspections.
- Student surveys: Students complete formal evaluations of each course as it is completed in both the lecture and the practicum components of the program. These evaluations are administered through the REDCap online tool and are anonymous. Evaluations are collected by the program director and shared with the clinical instructors, their managers, and the program officials. Information from these evaluations provides information about the effectiveness of our faculty and insights into course revisions that may be needed.
- Graduate surveys: Recent graduates receive surveys 6-12 months after graduation. Surveys assess the graduate's ability to obtain and work in an entry-level position after graduation.
- Employer surveys: Employers of recent graduates receive surveys 6-12 months after graduation to assess the entry-level knowledge of the graduate.

## **ATTENDANCE POLICY**

Students are expected to be present on a full-time basis throughout the Medical Laboratory Science (MLS) program. Students must be present in the assigned site (classroom or laboratory section), at the scheduled start time. Students must arrive on time and remain in the area for the entire time scheduled, except when taking appropriate breaks.

For the first half of the MLS program year, attendance is taken daily by the lecture instructor. During the clinical rotation portion of the program (second half of the year), students are required to maintain a daily time record through Trajecsyst. Trajecsyst is used to accurately document start and end times for each day, including absences and episodes of tardiness. Trajecsyst time records must be approved by the clinical preceptor. Clinical preceptor approval confirms student attendance and involvement in learning activities each day.

Lectures and student laboratory sessions are scheduled from 8:30 am to 4:30pm, Monday through Friday, with 12:00-1:00pm set aside for lunch. Any changes the program must make to this schedule are communicated to the students prior to the change and with respect to students' personal time.

Clinical rotation hours vary depending on the laboratory involved. Students will refer to the clinical rotation schedule for the rotation hours for each department. Typical laboratory hours are 7:00 am to 3:30 pm or 8:00 am to 4:30 pm, although some variation may occur, requiring students to complete clinical practicum hours outside of these hours. In particular, one week during the Blood Bank rotation requires students to attend the practicum from 1-9 pm. Students are made aware of this and other schedule irregularities during admission interviews and again during the program year.

Occasionally students are asked to arrive early or stay late to complete assignments. While this need is not a common occurrence, it is sometimes necessary in cases where activities cannot be completed during standard allotted time due to inclement weather, illness, etc. The schedule for these additional or remedial activities will be made at the instructor's convenience and will be communicated with the program director and the student.

## **Absence Policy**

### **Planned Absences**

Students are strongly encouraged to plan personal and extracurricular activities around the program schedule to ensure that the student does not miss needed information. Any planned absences, such as for doctor appointments, should be discussed with the instructor and program director prior to making the plans so that the program director and instructor can help the student identify the best time(s) for the student to miss. All planned absences must be approved via email by the course/clinical instructor and MLS Program Director at least three days prior to the absence.

Students are responsible for completing all work/assignments that will be missed during the absence prior to the planned absence unless the student is told by the instructor to complete the work after returning from the absence. In that case, the student is required to complete the assignment at the

convenience of, or by the deadline set by, the instructor. Any missed activities, including laboratory assignments, will be completed at the discretion of the instructor.

## **Unplanned Absences**

In the case of illness, emergency, or similar situation in which a student must be absent without prior notice, the student is required to report the situation immediately by taking the following steps:

- Step 1: Call the appropriate department contact (as provided on course syllabus) for the lecture or rotation instructor. If the instructor is not available, the student is required to leave a message with the individual answering the call. The student should obtain the name of the individual taking the message, as the program may ask the student for this information to verify proper notice was provided.
- Step 2: Email the course or clinical instructor and the MLS Program Director, [holly.covas@vumc.org](mailto:holly.covas@vumc.org), with pertinent information, including how long the student anticipates the absence to be and how the information was communicated to the instructor (i.e., phone call or message left with staff).

If the unplanned absence extends beyond one day, the student must keep the instructor and MLS Program Director updated daily regarding the anticipated duration of time away. Any absence greater than one day requires a doctor's note for the absence to be excused and for the student to have the opportunity to make up work missed during the absence. An exception for the doctor's note requirement will be made for students with COVID infections who follow the current institutional guidelines for isolation.

Students should not attend any program activities, including lectures/student laboratory and clinical rotations if any of the following apply during the previous 24 -hour period:

- Vomiting
- Diarrhea
- Fever greater than 101 F
- Diagnosis of a communicable illness

Upon returning from an unplanned absence, students are responsible for completing all work and/or assignments missed during the absence, at the convenience of, or by the deadline set by, the instructor. This may require the student to arrive early, stay late, or come in on a weekend to make up missed work. All make-up work must be scheduled with the instructor within one week of the student's return. Failure to schedule make-up work or failure to complete make-up work as required will result in an automatic grade of zero (0) for the assignments/work required, which may result in academic remediation, up to and including academic probation and dismissal from the program.

## **Tardiness**

A student is tardy (late) when the student is more than ten (10) minutes late for any lecture, laboratory, or clinical rotation. If a student is more than thirty (30) minutes late for any lecture, laboratory, or clinical practicum, the student is marked as absent for the entire activity. Exceptions to

this policy (e.g., for extreme circumstances that are out of the student's control) may be made at the discretion of the program (course instructor, rotation preceptor, or program director).

Students must notify the course instructor and program director as soon as the student is aware that he or she will arrive late, using the same steps as those appearing under the unplanned absences section above. Five (5) late arrivals during the program count as one absence. Any additional late arrivals during the program will result in disciplinary action, as described below.

If a student is tardy for a test or lab practical, the student is allowed to take the assessment, but the student will be given no additional time to take it; time will end at the same time as the students who began at the designated time.

### **Excessive Absence / Tardiness Policy**

An excessive number of absences or tardies is defined as greater than five (5) absences or tardies throughout the program, excluding illness or medical needs, emergencies, or military obligations. If this occurs, the program director and education coordinator will meet with the student to discuss the pattern of absenteeism or tardiness and issue a written warning. If the student continues to have unplanned absences and or tardiness after this warning, the student is subject to disciplinary action, up to and including probation and dismissal from the program.

## Notification of Excessive Tardies or Absences

According to the Medical Laboratory Science Program Handbook:

An excessive number of absences or tardies is defined as greater than five (5) absences or tardies throughout the program, excluding illness or medical needs, emergencies, or military obligations. If this occurs, the program director and education coordinator will meet with the student to discuss the pattern of absenteeism or tardiness and issues a written warning. If the student continues to have unplanned absences and or tardiness after this warning, the student is subject to disciplinary action, up to and including probation and dismissal from the program.

You are hereby notified that you have incurred \_\_\_\_ absences or tardies and are in danger of violating this policy. The dates of these occurrences are:

Please be aware that a continued issue with this will result in disciplinary action, which may include probation and dismissal from the program. If additional occurrences of tardies or absences occur, the Program Advisory Committee will meet to determine appropriate consequences.

I, \_\_\_\_\_, acknowledge that I have excessive absences or tardies and that I am aware of the potential consequences if this issue continues. I will correct this issue by the following actions:

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\_\_\_\_\_  
Student Name (Print)

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Program Official Name (Print)

\_\_\_\_\_  
Program Official Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
CPiAH Official Name (Print)

\_\_\_\_\_  
CPiAH Official Signature

\_\_\_\_\_  
Date

## STUDENT ADVISING AND CONFERENCES

The MLS program director, education coordinator, medical director, and instructors maintain an open-door policy for students throughout the year. Students are encouraged to bring all concerns to the attention of program officials. Depending on the topic or availability of the instructor or program administrator, meetings may need to be scheduled ahead of time. Students may also email instructors or program administrators with questions. Additionally, the student support services manager within the Center for Programs in Allied Health is available for student guidance with study skills, job preparation skills, and related help.

Individual academic advising sessions with the student support services manager, program director, and education coordinator are held periodically to provide academic guidance, discuss career planning, address any personal or academic concerns, etc. Any questions or concerns about the program or about hospital, laboratory, or program policies and/or procedures should be brought to the attention of the program director, education coordinator, or medical director. Should those individuals fail to address the problem, the student should consult the VUMC Student Grievance Policy, provided in the Catalog of the VUMC Center for Programs in Allied Health.

## COMMITMENT TO SAFETY, HEALTH AND ENVIRONMENTAL PROTECTION

VUMC supports and maintains a strong commitment to safety, health, and environmental protection through:

- Promoting compliance with federal, state, and local safety, health, and environmental requirements;
- Minimizing hazards, reducing pollution, and continuously improving practices regarding safety, health, and environmental protection;
- Empowering faculty, house staff, staff, and students to demonstrate individual and institutional leadership in all matters pertaining to safety, health, and environmental protection while preserving academic freedom in research and education and evidence-based practices in patient care;
- Protecting and maintaining safe and secure facilities for teaching, patient care, research, living, and work;
- Emphasizing open communication with the VUMC community regarding safety, health, and environmental issues; and
- Instilling the values of environmental stewardship and conservation of resources in VUMC's future leaders.

For more information, please visit the [Office of Clinical and Research Safety website](#).

VUMC requires all staff and Medical Laboratory Science students to complete initial and annual safety training. All students are required to provide copies of their immunization records to ensure that all immunization requirements have been met.

The Vanderbilt Diagnostic Laboratories continue the Vanderbilt Commitment by providing a safe working environment and keeping all faculty, staff and students informed of potential safety hazards and safe work practices associated with their work.

Employees and students are provided with policies and procedures related to safe work practices in the laboratory, response to internal and external emergencies, handling of potentially infectious agents, handling of hazardous chemicals, and handling of radioactive materials.

In addition to VUMC training requirements, laboratory staff and program students receive training specific to the laboratory section and annually changes in practice occur within that laboratory.

Safety issues within the laboratory fall under the review responsibility of the Laboratory Safety Committee, which has representatives from each laboratory section. Responsibilities include development and review of laboratory specific safety policies and procedures, communication of current and changing safety issues, implementation of policies and procedures and monitoring of compliance through monthly internal inspections. The Laboratory Safety Committee has review and approval authority for laboratory safety policies and procedures.

Medical Directors, managers, and team leaders throughout the Diagnostic Laboratories are responsible for working with the members of the Laboratory Safety Committee to fulfill these duties and to assure that all employees and students have access to current information, personal protective equipment, engineering controls, and appropriate medical treatment in the event of an exposure or accident. They also have the responsibility of corrective actions in the event of non-compliance with any VUMC or Laboratory safety policy or procedure.

Employees and students are responsible for being knowledgeable about the risks and safe work practices associated with their work. Staff and students are expected to bring safety questions, concerns or issues to their supervisors, safety officers and laboratory leadership.

## **STUDENT CONDUCT**

All students are bound by several standards of conduct, as outlined in the CPiAH Catalog, including:

- [VUMC Code of Conduct](#)
- VUMC Center for Programs in Allied Health Honor Code (see p. 11-12)
- [American Society for Clinical Laboratory Science \(ASCLS\) Code of Ethics](#)

Students should refer to these codes and their related policies to ensure clear understanding of expected standards of professionalism and conduct.

## **STUDENT EMPLOYMENT WHILE ENROLLED AT VUMC**

Students may be employed during the year of training in the Medical Laboratory Science Program. However, jobs during the first six months of training are discouraged due to the full-time nature of the MLS Program. If it is necessary for a student to hold a job during the program's first six months, the student must notify the MLS Program Director. Students are encouraged to actively communicate with the program director about employment while enrolled to best facilitate their success in the program. Under no circumstances may students miss, arrive late to, or leave early from required program activities (class, laboratory, and rotation) to fulfill a job obligation.

## Student Work Policy

The state of Tennessee does not allow non-licensed personnel to perform laboratory testing. Medical Laboratory Science students practice under the limited scope of a State of TN Trainee Permit while enrolled in the program. The Trainee Permit allows students to perform patient testing under the direct supervision of a licensed medical laboratory professional.

- Students who have completed both the didactic and clinical components of a specific area of the laboratory are eligible to work in that area of the laboratory.
- Students who work must complete a VUMC application for employment prior to being hired and VUMC institutional orientation at the start of employment.
- Laboratory Team Leaders/Managers must have a posted position in Taleo to hire an MLS student.
- VUMC employment is independent of the program and shall not interfere with program operations.
- Trainee Permits expire on the day of graduation from the Program.
- Work will be paid and supervised.

## DRESS CODE

The following dress code must be followed at all times:

1. Vanderbilt University Medical Center picture identification tags must be worn and visible while working, per VUMC policy.
2. Per OSHA guidelines, shoes worn in a laboratory may not be perforated, cloth, canvas, or sandals. Toes must be enclosed.
3. Clothing must be neat, clean, and appropriate to the professional environment. Business casual attire or scrubs are acceptable. Denim jeans, clothes with rips or holes, or shorts may not be worn. Skirts are acceptable.
4. If clothing is not appropriate, instructors, at their discretion, will ask the student to not wear the clothing again, or will send the student home to change.
5. Nitrile gloves must be worn when handling blood or body fluid and be changed when visibly soiled or torn, per OSHA guidelines.
6. When performing a task that has a risk of exposure to blood borne pathogens, a disposable non-permeable lab coat must be worn. This must be buttoned and protect to below the knees. It must be changed when visibly soiled, contaminated, or torn.
7. When performing a task that could result in a splash or aerosol, a face shield or appropriate PPE must be worn if the work is not performed behind a protective barrier.
8. Nitrile gloves and disposable lab coats must be removed prior to leaving the laboratory and may not be worn in clean areas such as the lounge, rest rooms, offices, or administrative area.
9. Fingernails must be kept short enough so that they do not pierce through gloves. Chipped fingernail polish or acrylic nails are not acceptable.
10. Hair, ties, and jewelry must be secured so they do not fall forward into the face or touch work surfaces. Jewelry may not be worn over gloves.



## GRADING POLICY

Students are expected to demonstrate knowledge, competency, and professionalism throughout the Medical Laboratory Science program. The minimum grade to ensure knowledge, psychomotor ability, and behavior is 75%. Students are assessed and graded based on this minimum throughout the program in graded activities, including didactic assessments, laboratory practicals, clinical rotation activities, and behavioral evaluations. The program is divided into two semesters, or halves, in which:

- The first half of the program, June through December, is the Student Didactic portion.
- The second half of the program, January through June, is the Clinical Rotation portion.

### Grading Policy

Scale	Grade	GPA
95-100%	A	4.0
90-94%	A-	3.5
85-89%	B	3.0
80-84%	B-	2.5
75-79%	C	2.0
<75%	F	Failure 0
	P	Pass - Any course with a "P" grade
	F	Fail - Any course with an "F" grade

I	Incomplete - May be used at the discretion of the instructor in those cases in which the student is not able to complete work in the normal time. In those instances, the student and instructor develop a written plan for an extension to provide work by a specific date that falls within the period of time specified by the relevant program's requirements (but in no circumstances greater than one month). An "I" that is not replaced by a letter grade within the period of time specified by the relevant program's requirements, due to unsatisfactory completion of the student's plan, will be changed to an F after the period specified by the program (a period not to exceed one month). Any course with an "I" grade is not calculated into the grade point average. Once a grade is assigned to the course (when conditions are met that allow for the removal of the "I" and assignment of a final grade), that grade will factor into the student's GPA.
W±	Withdrawal – Utilized when a student leaves the course due to an approved leave-of-absence or withdraws from the school prior to the scheduled completion of a course. Any course with a "W" grade is not calculated into the grade point average.
R	Repeat - Some programs allow students to repeat courses. In those programs, for any course that is repeated, a Repeat will be provided as the grade for the first attempt at the course. Any course with an "R" grade is not calculated into the grade point average. However, courses will be considered hours / credit hours attempted for the purpose of determining maximum time frame. Please refer to each program's student handbook for information about whether students are allowed to repeat courses in any given program.

Orientation is graded as Pass/Fail.

Each didactic course and clinical rotation, or practicum, will issue a final grade to students. A course is any portion of the program that includes instruction, has its own syllabus with grading criteria, and is identified as a discrete unit of instruction on the program calendar.

Students are evaluated on each course independently to ensure successful progression in the program. This means that students must earn a minimum of 75% in each student didactic and clinical rotation course.

The program and all related courses must be completed in their entirety for a transcript to be created and given. Incomplete transcript grades are not given. Students must successfully complete all components of the program within the 13 months of the program and in the order presented.

The Program Advisory Committee reserves the right to extend a student's training to make up for a deficit in a single course, but this remediation is not to extend training more than five (5) months from the end of the program year. Students may also receive additional time to complete the program due to military obligations or unforeseen circumstances, such as health conditions or emergencies. Specific details for completing the program will be determined on a case-by-case basis.

## **TEACH OUT POLICY**

Per the Vanderbilt University Medical Center Medical Laboratory Science program academic affiliation agreements, "any student from SCHOOL who is currently participating in the Program when notice of termination is given will be permitted to complete his or her training period as previously scheduled." This policy shall also apply to students who have completed a baccalaureate or higher degree before beginning the Medical Laboratory Science program and would not be covered by the program's academic affiliation agreements.

If the Vanderbilt University Medical Center Medical Laboratory Science program should close, all enrolled students will be allowed to complete his or her training as previously scheduled. However, no additional students will be recruited or enrolled. The program will notify all affiliates, accrediting organizations, and other invested parties to ensure that resources—physical, faculty, financial, and other forms—are available to minimize the effect to the enrolled students.

In the event that the enrolled students will not be able to complete training at Vanderbilt University Medical Center, program administration will work with local programs, or programs in other areas as requested by the student, to enter into a teach-out agreement that will allow the students to transfer into a comparable program to complete his or her training. If this occurs, Vanderbilt University Medical Center will transfer student records and outstanding tuition payments to the new program.

Student records will be archived within Vanderbilt University Medical Center, and all past and current students will be notified in writing where the records are stored and how to access them.

## **INCLEMENT WEATHER**

If inclement weather occurs, the Center for Programs in Allied Health director will determine if classes and clinical rotations will be canceled. Additionally, clinical instructors may request that students do not attend clinical rotations if the inclement weather interferes with staffing in the Diagnostic Laboratory. If the student cannot safely report to VUMC, s/he must follow the notification procedure in the unplanned absence policy.

Students will make up any missed activities, and the program director and instructor will work to ensure all make-up assignments are completed at a time that works with the laboratory and does not overburden the student. Make-up assignments may be required to be completed outside of normal program hours.