



**Medical Laboratory Science**

**Clinical Handbook**

**2024-2025**



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## **Clinical Overview**

### **Outcomes**

During the clinical practicum/internship, MLS students will perform assigned tasks under the direction and supervision of clinical site preceptors according to their established policies and procedures. Working with a preceptor, students will develop skills in the laboratory by performing patient testing, preparing and maintaining instruments for testing, reviewing lab data and patient results, and reporting accurate results.

Students will demonstrate entry level MLS competency by completing task checklists, submitting weekly task summaries and other assignments, and completing any testing required by clinical sites.

Students will share their knowledge in weekly discussions of what has been learned at their respective sites and answer questions from the clinical instructor/coordinator from TU.

Students will always demonstrate professional attributes of a Medical Laboratory Scientist. This behavior will be measured by your preceptor and submitted to the instructor.

### **Clinical Training**

Clinical training consists of clinical rotations through the different departments of clinical laboratories. New affiliates are added each year depending on the location of students. Clinical sites are limited, and sites will be awarded at the discretion of the Program Director and Clinical Coordinator based upon GPA, student rank in the cohort, and professionalism. The program director or clinical coordinator will initiate the formal contract process and provide information on what is expected of the clinical site. Students are not choosing their sites, nor are they allowed to begin this process and any attempts to do so will result in dismissal from the program or rejection of program acceptance. Students may be placed in more than one clinical site to meet the required competencies and for successful internship completion. Students must comply and submit any additional documentation or testing required by their clinical site. Complete clinical training rules and policies can be found in the clinical handbook.

In the event that clinicals cannot be completed at the assigned site due to no fault of the student, the Program Director and/or Clinical Coordinator may locate an alternate site or provide equivalent online assignments to demonstrate competency based upon the established checkoffs. In the case of a non-renewal or termination of an affiliation agreement, students already enrolled in the internship at the site that does not renew or terminate will be placed at another clinical site and/or utilize online modules to complete the required competencies. If a student is removed from a clinical internship due to unacceptable performance of any kind, he/she will not be guaranteed placement at another clinical site.

### **ROUTE A: 2+2 PROGRAM**

Most often, 2+2 students complete their clinical training at their place of employment. If the laboratory where the student is employed as an MLT is not qualified to serve as a clinical site, the student must locate an alternate site and provide that information to the program director and clinical coordinator. The MLS 2+2 Program at Thomas University is a NAACLS accredited program that does not require a set minimum hours of training. These clinicals are competency based and completed during the course MLS 495 Advanced Clinical Practicum. Students will be enrolled in that course upon completing the major didactic coursework. No practicum will be allowed until all theory/didactic portions are passed with a 70% or higher for the following courses: MLS 405, MLS 411, MLS 414, MLS 421, MLS 431, MLS 441, and MLS 451. Preceptors may judge the initial experience of students and begin training at an appropriate point. Preceptors may also determine that additional time is needed for students to demonstrate competence. Clinical sites for the 2+2 students will determine competence and complete professional evaluations in all required areas. Students must meet the hourly requirements of the clinical site, if applicable.

**ROUTE B: ONCAMPUS TRADITIONAL PROGRAM-** Not operating at this time.

#### **ROUTE C: POST BACCALAUREATE CERTIFICATE PROGRAM**

If students in the post baccalaureate program are granted a clinical internship site, they must accept the rotation awarded. The MLS Program Director/Clinical Coordinator is not responsible for procuring an alternate clinical rotation site. The MLS Program Director/Clinical Coordinator will make their best effort to locate a site in close proximity to the student. Because students cannot exceed the student to clinical instructor ratio as set by the site, students may be placed on a waitlist for clinical completion, based on program GPA and performance. Travel to and from these sites is entirely the student's responsibility. Some clinical sites are exclusive to a single student and are not available for additional students. Students WILL be dismissed from the program if they are found to be acting on behalf of Thomas University to secure their own personal clinical site.

Students will be placed in a clinical site upon completion of the major didactic coursework. No internship will be allowed until all theory/lab portions are passed with a 70% or higher for the following courses: MLS 250, MLS 405, MLS 411, MLS 421, MLS 431, MLS 441, and MLS 451. The MLS program at Thomas University is a NAACLS accredited program that requires a set minimum hours of training on all disciplines that compromise our field.

The internship portion of these disciplines requires the following and are completed in the course MLS 400 Clinical Internship.

- 40 hours Urinalysis and Body Fluids
- 160 hours Microbiology
- 160 hours Hematology
- 160 hours Clinical Chemistry

- 160 hours Immunohematology
- 40 hours Immunology/Molecular Diagnostics
- 40 hours Phlebotomy/Specimen Processing

## **Clinical Schedules**

A schedule will be worked out between the Clinical Coordinator and the clinical student coordinator/preceptor. Students are expected to attend all designated sessions scheduled. A 40-hour work week is expected for Route B and C students. Route A students may complete clinical hours before or after their scheduled work shift or on their day off. Absence from the internship exceeding 2 days (including tardy, late, request to leave early etc.) will result in either dismissal from the clinical site and/or program.

Clinical hours are recorded using the Trajecsys (TRS) system. If the student cannot attend the scheduled times, the clinical instructor and clinical coordinator must be informed of the absence a minimum of 90 minutes prior to the beginning of the scheduled shift. It is the responsibility of the student to contact the appropriate individual(s) at the university and clinical site. Any tardiness not reported to the clinical site and the Clinical Coordinator will not count toward the student's total clinical hours. Students must allow TRS to mark their location or the time does not count.

Any student that fails to be present for the schedule that was agreed upon and is dismissed from the clinical site will be immediately dismissed from the program. Students are not allowed to "re-negotiate" the schedule **AT ANY TIME**. Any report from a preceptor regarding schedule changes or special alteration of schedule requests will be dismissed.

Students are to always maintain an agreeable and professional attitude. If a student's behavior is unprofessional and disruptive to the flow of work in the clinical laboratory, the clinical supervisor will first counsel the student. If behavior continues following reasonable warning, the supervisor may ask that the student leave for the day and must immediately notify the MLS Program Director and/or Clinical Coordinator. If a student is dismissed from a clinical site due to unprofessional behavior, or excessive absences/tardiness, the MLS Program Director will withdraw the student from the MLS Program and award an "F" for the clinical rotation.

## **Medical Clearance**

Each clinical affiliate has its own regulations for medical clearance. You will be informed as to what the requirements are for your clinical site at least 90 days in advance of the proposed start date. These requirements must be met at least 30 days before the proposed start date.

In general, the requirements for most clinical sites are as follows:

- Completed and up to date physical health form

- TB Screen (skin test followed by xray if positive or previously positive; blood test is also acceptable)
- Hepatitis B (or waiver)
- TDAP (Tetanus, Diphtheria, Pertussis)
- MMR/Varicella (measles, mumps, rubella, chicken pox)
- Background Check (some affiliates may require their own background check)
- Drug screen
- Flu Vaccine

If you are completing your clinical at your employer, they may accept a waiver for these items if included in your preemployment screening. Some clinical sites may still require you to repeat these as a student. The Program Director/Clinical Coordinator will tell you what is required.

All students must meet the immunization requirements of their clinical internship sites. Any expense incurred in meeting these requirements is the responsibility of each individual student.

### **Time Commitment and Attendance**

The Clinical Practicum/Internship is a 16-week commitment. There will be no accommodation for the students' personal or employer requirements. You must be able to commit to the 16-week, 32–40-hour requirement. The shift is typically a first/day shift, but a clinical affiliate may be flexible to days/times, but it is not guaranteed.

Attendance is required for scheduled days and must be recorded in Trajecsys. Students are expected to seek opportunities to learn, gain experience, and assist laboratory scientists when appropriate. Logs should be kept for each day the student is in the practicum with skills recorded in Trajecsys. When all checklists are completed, the student is expected to continue their log and participation in all discussions and assignments throughout the remaining portion of the course.

### **Clinical Hours**

Specific times for arrival and departure will be determined by the clinical site and specific department practicum preceptors. Hours may be assigned during any shift at the preceptor's discretion and approval of the clinical coordinator. The student should note that the time for arrival will vary by clinical site and rotation area. Students will not count their lunch break as part of their clinical time and MUST clock out and back in from lunch on Trajecsys (TRS). Breaks provided will follow the normal schedule of the clinical site but a 30-minute lunch break during an 8-hour shift must be taken.

### **Service Work Policy**



Students are encouraged to develop confidence and independent work skills in every phase of their training. With qualified supervision and guidance from the clinical instructor employed by the clinical affiliate, students who have satisfied competency requirements for various test procedures can perform actual patient work; however, ALL student results must be verified before leaving the lab area by the clinical instructor.

The affiliated laboratory may not, under any circumstances, use the student to perform work (service work) in lieu of a regular employee. This would violate NAACLS accreditation standards for the Thomas University MLS Program. Service work by students in clinical settings outside of regular academic hours must be noncompulsory, paid, supervised on site, and subject to employee regulations.

### **Communication**

Students are responsible for attaining and submitting current contact information of their preceptor to the Clinical Coordinator. This contact information will only be used if a student fails to communicate with their preceptor(s). Students and preceptors should communicate daily with each other and should only involve lab managers/program directors if a professional conduct violation has occurred.

All communication with the clinical coordinator and the student should be via TU email accounts. Refer to the “netiquette” rules in the MLS Student Program Handbook.

### **Insurance and Injury**

Professional liability insurance is needed to protect you as a student training in the hospital setting. You **must** purchase liability insurance and send proof of coverage to the Clinical Coordinator before you enroll in the clinical course. The Program Director/Clinical Coordinator will provide instructions when the time comes to purchase this.

Personal medical insurance is required for the clinical practicum/internship and if a student is injured at the clinical site the student is personally responsible for any costs incurred as a result of that injury. If a needlestick or biological exposure occurs, the student is to follow the guidelines of the clinical site and notify the Program Director and Clinical Coordinator immediately.

### **Inclement Weather Policy**

Students must follow the policies of the University. If the University declares an emergency cancellation, students must contact the clinical affiliate to let them know that the campus has closed, and they will not be at their clinical for the day. The Emergency Cancellation Announcement may be posted on the TU website, sent via email or by phone/text. The Program Director/Clinical Coordinator will also notify students of this cancellation.

If you are not near Thomasville, you should follow the closures/cancellations of the college/university near where you are. For example, snow in Boston does not affect students in clinicals in Georgia.

### **Clinical Supervision**

All students will be supervised by an individual in the department to which you are assigned. This individual will work closely with you and monitor your work in that department. You will also meet periodically with the Clinical Coordinator to answer any questions or discuss any problems that may have occurred during your rotation. If you encounter a problem at your affiliate, please contact the Clinical Coordinator at your earliest convenience so that it can be addressed.

### **Cell Phone Policy**

Students should not bring cell phones into the classroom or clinical site. There is never an excuse to be talking on the phone while at a clinical bench. If an emergency arises, where it is necessary to carry a cell phone to the classroom or clinical site, it must be set to vibrate mode so as not to disturb the learning environment. Students who must answer a call must step out of the classroom or lab or wait until an appropriate break time.

### **Dress Code**

\*Please refer to the specific policies of your affiliate institution.

MLS students will always maintain a neat, groomed, and professional appearance.

#### *Classroom Attire*

Students must wear:

- Hunter Green scrubs to class meeting sessions and only approved t-shirts.
- Close toed leather shoes (no "Crocs" are allowed)
- Provided PPE.

#### *Clinical Attire*

The appropriate attire includes:

- Students must wear appropriate uniforms for all clinical assignments. Scrub tops and bottoms are required. Thomas University requires HUNTER GREEN scrubs.
- Closed-toe, clean, leather shoes.
- PPE Provided by the facility.
- Student ID badge must be worn at ALL TIMES.
- Hair should be clean at all times and must be placed up and pulled off the face and the shoulders. Hair is a source of cross contamination and must not interfere with the delivery of patient care. Ponytails must be controlled and not drop forward when giving patient care or operating laboratory equipment. Beards and mustaches should not

appear in disarray. They should be clean and neatly groomed. Long hair secured in a "bun" must be neat and orderly.

- Makeup worn in moderation.
- Fingernails harbor microorganisms and must be kept reasonably short. No false/acrylic fingernails are allowed in the clinical area.
- A watch, wedding bands or simple rings, and simple earrings (not hanging) are permitted. No other jewelry or body ornamentation is permitted. This includes piercings! Conservative earrings in the lobes are allowed. Additional piercings are NOT allowed.
- Tattoos must be covered. If you have tattoos on the arms, neck, or other areas that could potentially be visible, you **MUST** wear undergarments (turtleneck, long sleeves etc.) to insure they are not exposed or visibly noted.
- Good personal hygiene is of the utmost importance when working with other people. Please consider the following:
  - Teeth and breath – brush and floss daily. Use mouthwash as needed.
  - Perspiration and body odor – daily bathing and use of deodorant is recommended.
  - Perfume/cologne – **do not wear**. This is highly important to asthmatic and other respiratory distress patients and is often against hospital policy.
  - Do not chew gum, use tobacco products, vape, or apply makeup in the clinical setting.
  - Undergarments may not be visible through scrubs by pattern or design at any time.
  - The student must meet any additional regulations of the clinical affiliate not covered in this handbook.

## **Student Photo ID**

To receive your TU Student ID cards, you must request a TU student ID by submitting a Student ID Request Form to Office of Student Life. Make sure you review the photo submission requirements before submitting the request form. When your TU student ID card is ready, our administrative assistant will contact you. The students that are local can pick up and the ones that are long distance, we will mail to you.

For information on the Student ID Request Form, please navigate to <https://www.thomasu.edu/student-life/campus-life/student-ids/>.

### *Photo Submission Requirements*

The photo you submit must meet the following requirements:

- Must be color (cannot be black and white)
- Must have a plain, light-colored background
- Must be clear and well-lit — no excessive shadows, pixilation/graininess, etc.
- Your entire head and shoulders must be visible

- You must be facing forward, looking directly into the camera
- Do not have any other people or objects in the photo
- Do not wear a hat or sunglasses.

Thomas University reserves the right to determine any photo as being inappropriate.

### **Clinical Conduct Expectations**

As a student in this profession, one of the most important responsibilities is in personal conduct. The impression you make on the patients and others reflects not only upon yourself, but also on the department and the university. Unprofessional conduct will not be tolerated and will result in dismissal from the program.

Any student under the influence of non-prescriptive drugs or alcohol in the classroom or clinical site will be dismissed from the program.

The university offers MLS students the opportunity to apply theory and laboratory testing at an MLS level under direct clinical supervision. To obtain a consistently high level of training in clinical laboratory science, with a positive impact on patient care, the code of conduct should be maintained. Professionalism is graded by the clinical preceptors using the Professional Evaluation Form, which can be found in the clinical handbook.

Recognizing that personal and professional conduct can impact the quality of health care delivery, MLS students agree to:

- Treat patients, classmates, instructors, and healthcare personnel with respect, care, and thoughtfulness.
- Demonstrate compassion and kindness toward colleagues and patients.
- Maintain honesty, initiative, enthusiasm, and adaptability in action and attitude.
- Safeguard patient information as confidential, and in adherence with state and federal laws and regulations.
- Perform duties in a dependable, accurate, precise, timely, and responsible manner.
- Function as a collaborative team member within the university and clinical laboratory setting.
- Communicate effectively and appropriately.
- Be cognizant of and adhere to channels of authority.
- Demonstrate physical and psychological stability under stress.
- Accept responsibility for own work and results.
- Display an appropriate level of confidence, while recognizing limitations.

- Maintain appropriate professional appearance and hygiene.
- Strive for increased efficiency and quality by using organizational skills.
- Continue to study, apply, and advance medical laboratory knowledge and skills and share such with my colleagues, other members of the healthcare community, and the public.

### **Laboratory Safety**

Occupational Safety and Health Administration (OSHA) requirements must be observed for your safety and that of your peers and patients. Students will follow these requirements in the student and clinical laboratory. Students who fail to follow safety and policy regulations will be asked to leave the classroom or clinical site. Students who fail to follow safety and policy regulations for a second time will be dismissed from the program at the discretion of the program director.

### **Clinical Affiliates**

\*This list is not inclusive and new sites are added each year.

Archbold Medical Center

Atrium Health—Floyd Medical Center

Centrastate Healthcare System

Dodge County Hospital

East Georgia Medical Center

Emory Hillandale Hospital

Fairview Park Hospital

HCA Capital Hospital

Jefferson Health System

Miller County Memorial Hospital

Northside Hospital System

Quest Diagnostics

South Georgia Medical Center

Tift Regional Medical Center

Wellstar Health System

### **Confidentiality and HIPAA**

All patient and institutional information will be kept strictly confidential. Discussion of any patient information outside of the classroom or practicum/internship setting is not permissible. Confidential information concerning the institution is not to be discussed with any unauthorized individuals. Students may be required to sign a confidentiality statement or complete additional HIPAA training at the hospitals. Violation of this policy and/or of other hospital or laboratory policies will result in the dismissal of the student from the hospital and the MLS program.

## Grading for Clinical

The grade expectations for the clinical will be found in each corresponding syllabus. The student is expected to be found competent at an entry-level Medical Laboratory Scientist level in EACH clinical area. If they have been unsuccessful in one area, additional time may be awarded to remediate. If they remain unsuccessful, an F will be awarded for the clinical course, and the student must repeat the course at the next available time.

<b>Method of Assessment and Brief Description</b>  <i>How Learning Will Be Measured</i>	<b>Brief Description</b>	<b>Proportion of grade</b>
Competency Evaluation Task Lists	<i>Competency evaluations will be completed by the assigned clinical site. It will cover all areas listed on individual checklists for each area.</i>	40%
Professional Evaluations	<i>Professional evaluations will be completed by the assigned clinical site. It will cover how students perform in the clinical site on a Likert scale of 1-5.</i>	40%
Assignments	<i>Discussion posts, weekly log summaries, and automation reports will be completed in Trajecsys and Canvas.</i>	20%
<b>Total</b>		100%

## TU Grading Scale

The current grading scale at TU:

A= 90 – 100	Outstanding
B= 80 – 89	Above average work
C= 70 – 79	Average work
D= 60 – 69	Marginal performance
F= Below 60	Failure to meet minimum requirements

See the College Catalog for an explanation of grades of W, WA,V, K, I, and E. Final course grades are letter grades. Final grades are available online through the student's TU Hawklink account on the school web page. Grades are not provided via telephone or e-mail.

## **Methods of Evaluation**

The student's knowledge, skills, and affective behavior will be assessed by written examinations/exercises, task performance, and observation by practicum preceptors during all practicums. The final grade for a course will be determined by the scores earned in the categories described below.

### *Checklists*

These are the laboratory tasks and skills detailed for each section of the clinical. The student must show acceptable progress and performance for these tasks to receive a satisfactory course grade. Additional tasks may be included as determined by the clinical affiliate. MLS Entry level competency is expected for each task and students will be evaluated by preceptors as either competent or not competent. These will be submitted through Trajecsys by the clinical preceptor or designee.

### *Performance and Professionalism*

A student's performance in the practicum area comprises their technical skills and professional behavior. Both will be evaluated by their practicum preceptor(s) for each rotation area. Practicum preceptor(s) will complete an evaluation at the end of the student's rotation. Some areas of the evaluation have been marked as high importance. Any unsatisfactory assessment in any of these areas may be grounds for probation or dismissal from the program. Students will be evaluated using the following: Unsatisfactory, Satisfactory, and Outstanding. These forms will be submitted through Trajecsys by the clinical preceptor or designee.

### *Daily Logs and Other Documents*

Students must record their daily activities. This includes documentation of instrumentation utilized, test names, abnormal results seen and approximate number either performed or observed and brief description of problem solving and trouble shooting incidents. Time of arrival and departure, special incidents, concerns, problems, instrumentation, and other pertinent items should also be recorded. The log must be submitted in Trajecsys on a daily basis. In addition to daily logs, the course instructor may post a question or assignment each week and weekly summaries (in Canvas).

## **Definition of evaluation terms**

### *Unsatisfactory*



This applies to tasks, skills, and behaviors in which the student does not meet the minimum criteria. In the judgment of the practicum preceptor and/or coordinator, the student's progress or behavior is unacceptable because of inferior quality (accuracy, precision, and organization), quantity of work, performance, and professional conduct. The student needs improvement.

### *Satisfactory*

This applies to tasks, skills, and behaviors in which the student demonstrates acceptable progress and performance. The expected work is normally performed in an accurate, precise and organized manner within a reasonable amount of time, and with adherence to general and laboratory policies and professional conduct.

### *Outstanding*

This applies to tasks, skills, and behaviors in which the student consistently performs above the expected criteria. The student exceeds expectations in quality, quantity, organization of work, and professional conduct.

## **Student Responsibilities**

The student will abide by the rules and policies of the clinical sites including:

- Hours of rotation.
- Safety guidelines.
- Proper notification of absences.
- Make up any time missed due to absences.
- Abide by the dress code and conduct code of clinical site.
- Adhere to the rotational schedule.
- Provide own lodging, transportation, food, and other necessary expenses. The clinical rotation sites do not reimburse.
- Adhere to the affective guidelines outlined in the student and school affiliation agreement.
- Confirm that preceptors completed and submitted professional evaluation forms.
- Completion of daily/weekly logs and questions.
- Complete site evaluations of each department of practicum rotations
- Take notes as clinical preceptors do not have the time to repeat instructions numerous times.

## **Clinical Supervisor/Preceptor Responsibilities**

The clinical supervisor/preceptor is responsible for the following:

- Provide in-service training in the areas where the student is assigned. This includes all employee policies, start times, break times, and lunchtime, the principle of operation

for instrumentation, procedures for determining acceptable test results, and the procedures for reporting results. The student should also be instructed in what to do if the test results are not valid.

- Ensure that the student is exposed to all techniques and procedures listed in the checklist provided.
- Provide the student with feedback on his/her performance periodically throughout the rotation.
- Counsel the student relative to poor performance.
- Notify the MLS clinical coordinator as soon as possible if a problem arises. The clinical coordinator and the supervisor should work together with the student to ensure success.
- Complete and submit the checklists and evaluation forms in Trajecsys.

### **Clinical Coordinator Responsibilities**

The clinical coordinator for the MLS practicum/internship is responsible for the following:

- Serve as the contact person for any issues (either site related or student related) surrounding the rotation.
- If a problem arises with a rotation schedule the clinical coordinator will work with the student and site to resolve it.
- Ensure that the student has had all the orientation information for the university.
- Ensure that the student has satisfactorily met the affective, knowledge, and technical objectives for the rotation.
- Assign the grade for the rotation.
- The clinical affiliate site reserves the right to prematurely terminate a student's clinical experience if difficulties arise and cannot be resolved after meeting with the student and the MLS Program Director/Clinical Coordinator.

## Specimen Collection and Processing Performance Checklist

Name: \_\_\_\_\_

**Department: Specimen Collection and Processing**

### INSTRUCTIONS FOR CLINICAL INSTRUCTORS – Please read carefully.

Clinical instructors need to place their INITIALS for each of the skills listed in the rows they have covered with the student. It is critically important that the student paperwork be reviewed daily.

This checklist serves for tracking skills that the student has performed or observed and is considered as achieving entry level competence as an MLS. Your date/initials are signing off the student as competent.

**Note:** Each affiliate hospital Specimen Processing area has a unique configuration; comprising major and minor “workstations”. Each workstation differs in the number and type of equipment and complexity of testing performed. Even though the equipment mix will be different, there are several common tasks to be performed while rotating through the laboratory. By the end of the rotation, you should have performed these tests, under supervision, on all major pieces of equipment.

Please place the following letter(s) that coincide with the method of instruction.

P= Performed      O= Observed      D=Discussed      NP= Not Performed

Procedure	Method of instruction	Date/ Tech Initials	Date/ Student Initials
<b>1. Venipuncture (As available)</b>			
Demonstrates proper handwashing and gowning.			
Properly identifies the patient according to the institution’s policy.			
Selects proper equipment for tests ordered.			
Prepares venipuncture site and performs unaided successful collections venipuncture correctly.			
Student performed _____ blood draws.			
Labels specimens correctly, according to the institution’s policy.			
Delivers specimen to correct department for testing.			
<b>2. Capillary Blood Samples (As available)</b>			
Demonstrates proper handwashing and gowning.			

Properly identifies the patient according to the institution's policy.			
Selects proper equipment for tests ordered.			
Select correct site for skin puncture, cleanse it properly and collect specimen.			
Labels specimens correctly, according to the institution's policy.			
Delivers specimen to correct department for testing.			
Observes collection of specimen(s) on infant.			
<b>3. Blood Cultures (As available)</b>			
Properly identifies the patient according to the institution's policy.			
Prepares venipuncture site and specimen containers.			
Perform venipuncture obtaining adequate sample and distributing it into bottles correctly.			
Labels specimens correctly, according to the institution's policy.			
<b>4. Miscellaneous Collection Procedures (As available)</b>			
Observes collection of blood specimens from isolation patients.			
Discuss special handling requirements of certain tests.			
Properly handles test requests with priority (STAT, timed, routine, ASAP).			
Properly prepares samples for testing in hematology, chemistry, and immunohematology departments.			
Properly prepares samples for transport to reference laboratories.			
<b>5. Specimen Processing</b>			
Adheres to department safety regulations.			
Prepares work area for accession.			
Correlates patient name with times, dates, and test requests.			
Generates worksheets and correlates specimens on hand with worklists.			
Centrifuges specimens according to lab protocols.			

Separates specimens according to department.			
Affixes labels to aliquot tubes matching original tube to aliquot tubes.			
Aliquots specimen as needed.			
Prepares specimens for send out testing according to lab protocols.			
Communicates with responsible parties to resolve errors.			

## Immunology and Molecular Techniques Performance Checklist

Name: \_\_\_\_\_

**Department: Immunology and  
Molecular Techniques**

### INSTRUCTIONS FOR CLINICAL INSTRUCTORS – Please read carefully.

Clinical instructors need to place their INITIALS for each of the skills listed in the rows they have covered with the student. It is critically important that the student paperwork be reviewed daily.

This checklist serves for tracking skills that the student has performed or observed and is considered as achieving entry level competence as an MLS. Your date/initials are signing off the student as competent.

**Note:** Each affiliate hospital Immunology/ Molecular area has a unique configuration; comprising major and minor “workstations”. Each workstation differs in the number and type of equipment and complexity of testing performed. Even though the equipment mix will be different, there are several common tasks to be performed while rotating through the laboratory. By the end of the rotation, you should have performed these tests, under supervision, on all major pieces of equipment.

Please place the following letter(s) that coincide with the method of instruction.

P= Performed      O= Observed      D=Discussed      NP= Not Performed

Procedure	Method of Instruction	Date/ Tech Initials	Date/ Student Initials
<b>1. Molecular Amplification Detection</b>			
State the principle of the test.			
Explain the purpose of each component in reactions, cycle, and methods for ensuring adequate stringency.			
Perform amplification and probe assay of amplification.			
Observe sequencing of amplification product.			
Discuss issues of contamination.			
Discuss use of controls for accurate interpretation of results.			
Discuss interpretation of the results of amplification.			
Compare different methods for amplifying nucleic acids.			
Report approved results according to laboratory policy.			
Help perform preventative maintenance.			
Calibrate a procedure as available.			

Explain the principle of measurement of the instrument.			
<b>2. Immunologic Detection</b>			
State the principle of the test.			
Validate the sample by ID number, anticoagulant, and follow criteria for rejection of an inappropriate sample.			
Produce acceptable results with accuracy and demonstrate basic competence with applied techniques.			
List sources of error and implement appropriate corrective actions when needed.			
Perform the appropriate quality control procedures.			
Interpret and/or correlate test results to associated clinical states.			
Apply appropriate reference values for all tests performed.			
<b>3. Antibody Titer</b>			
State the principle of the test.			
Validate the sample by ID number, anticoagulant, and follow criteria for rejection of an inappropriate sample.			
Produce acceptable results with accuracy and demonstrate basic competence with applied techniques.			
List sources of error and implement appropriate corrective action.			
Perform the appropriate quality control procedures.			
Interpret and/or correlate test results to associated clinical states.			
Apply appropriate reference values for all tests performed.			
<b>4. Antinuclear Antibodies</b>			
State the principle of the test.			
Validate the sample by ID number, anticoagulant, and follow criteria for rejection of an inappropriate sample.			
Produce acceptable results with accuracy and demonstrate basic competence with applied techniques.			
List sources of error and implement appropriate corrective action.			
Perform the appropriate quality control procedures.			
Interpret and/or correlate test results to associated clinical states.			

Apply appropriate reference values for all tests performed.			
<b>5. Fluorescent Antibody Detection</b>			
State the principle of the test.			
Validate the sample by ID number, anticoagulant, and follow criteria for rejection of an inappropriate sample.			
Produce acceptable results with accuracy and demonstrate basic competence with applied techniques.			
List sources of error and implement appropriate corrective action.			
Perform the appropriate quality control procedures.			
Interpret and/or correlate test results to associated clinical states.			
Apply appropriate reference values for all tests performed.			
<b>6. Serologic Procedures</b>			
ANA			
Thyroid Antibodies			
Rheumatoid Factor			
Infectious Mononucleosis			
Labeled Immunoassays (ELISA)			
Nontreponemal Syphilis Testing (RPR)			
Treponemal Syphilis Testing (MHATP)			
Cytokine Testing			
Immunofluorescence			



## Immunoematology Performance Checklist

Name: \_\_\_\_\_

Department: **Immunoematology**

### INSTRUCTIONS FOR CLINICAL INSTRUCTORS – Please read carefully.

Clinical instructors need to place their INITIALS for each of the skills listed in the rows they have covered with the student. It is critically important that the student paperwork be reviewed daily.

This checklist serves for tracking skills that the student has performed or observed and is considered as achieving entry level competence as an MLS. Your date/initials are signing off the student as competent.

**Note:** Each affiliate hospital Immunoematology area has a unique configuration; comprising major and minor “workstations”. Each workstation differs in the number and type of equipment and complexity of testing performed. Even though the equipment mix will be different, there are several common tasks to be performed while rotating through the laboratory. By the end of the rotation, you should have performed these tests, under supervision, on all major pieces of equipment.

Please place the following letter(s) that coincide with the method of instruction.

P= Performed      O= Observed      D=Discussed      NP= Not Performed

Procedure	Method of Instruction	Date/ Tech Initials	Date/ Student Initials
<b>1. Quality Control</b>			
Perform QC on routinely used blood bank reagents.			
Review QC and preventative maintenance procedures for cell washers, heat blocks, refrigerators, and freezers.			
Review the procedures for temperature failure of refrigerators/freezers.			
Perform centrifuge calibration.			
Discuss, observe, and perform testing on any blood bank analyzer available.			
Review procedures and principles for any blood bank analyzer available (gel, solid phase, etc).			
<b>2. Patient Samples</b>			
Correctly identifies patient samples.			
Prioritizes samples based on urgency of test request.			
State the reason for rejection of samples by the transfusion services.			

State the sample types acceptable for each test performed in the transfusion service.			
State the indications for transfusion of each blood component available.			
<b>3. Routine Testing</b>			
Perform ABO/D and Antibody Screens accurately.			
State the most encountered ABO discrepancies with resolutions.			
State the workup required, including lectin used, for an A2 with an Anti-A1 antibody.			
Perform major crossmatch, immediate spin.			
Perform major crossmatch, AHG.			
State selection of ABO/D compatible blood when blood type is not available OR special circumstances arise, I.e., antibodies present.			
State special needs for transfusion: CMV neg, irradiated, washed, etc.			
Correctly perform antibody identifications.			
Correctly identify primary antibody specificity.			
State additional testing to perform when antibody screen is positive.			
Perform additional antibody typing, if available. Includes selection of appropriate controls for typing sera used.			
Discuss and/or observe appropriate use of enzyme treated cells, neutralizations, elutions, auto adsorptions, etc.			
List and state the antibody class, phase of reactivity, clinical significance and transfusion requirements for the following: Rh, Jk, K, Fy, Lutheran, M, N, S, Le, P1 and I.			
Perform Direct Antiglobulin Testing (DAT) on adult samples.			
Discuss and/or perform an elution.			
Discuss when the Rh Immune Globulin workup is performed.			
Perform and/or discuss the Fetal Blood Screen.			
Discuss the Kleihauer-Betke (KB) stain.			
Given the results of a KB stain, determine the number of vials of RhIg needed.			

Perform DAT on Cord Bloods.			
State ABO/D type and other special requirements for routine transfusions of neonates.			
State the three types of HDFN and antibody specificities involved.			
Discuss and/or observe a transfusion reaction workup.			
Other: Please specify in comments.			
<b>4. Blood Components</b>			
Discuss appropriate utilization of cryoprecipitate, fresh frozen plasma, CMV negative RBCs, platelets and other products.			
Discuss and/or observe component processing such as irradiation, pooling, aliquoting, and concentrating.			
Discuss and/or perform issuance of compatible blood components.			
Discuss and/or perform issuance of factors.			
State the evaluation of component appearance and reason for rejection.			
State the information which must appear on a unit of blood prior to issue.			
State the recommended storage temperature for each component.			
State expiration time for each component.			
Discuss stock levels of components required at site.			
Other: Please specify in comments.			
<b>5. Donors</b>			
Donor Interview (if done in house).			
Donor Phlebotomy (if done in house).			
Discuss and/or observe transfusion transmitted disease testing.			
Discuss adverse reactions from donor collection.			
Discuss the different types of special donations (autologous, directed, etc).			

## Microbiology Performance Checklist

Name: \_\_\_\_\_

Department: Microbiology

### INSTRUCTIONS FOR CLINICAL INSTRUCTORS – Please read carefully.

Clinical instructors need to place their INITIALS for each of the skills listed in the rows they have covered with the student. It is critically important that the student paperwork be reviewed daily.

This checklist serves for tracking skills that the student has performed or observed and is considered as achieving entry level competence as an MLS. Your date/initials are signing off the student as competent.

**Note:** Each affiliate hospital Microbiology area has a unique configuration; comprising major and minor “workstations”. Each workstation differs in the number and type of equipment and complexity of testing performed. Even though the equipment mix will be different, there are several common tasks to be performed while rotating through the laboratory. By the end of the rotation, you should have performed these tests, under supervision, on all major pieces of equipment.

Please place the following letter(s) that coincide with the method of instruction.

P= Performed      O= Observed      D=Discussed      NP= Not Performed

Procedure	Method of Instruction	Date/ Tech Initials	Date/ Student Initials
<b>1. Quality Control</b>			
Perform quality assurance (QA) procedures on equipment, media, and tests.			
Discuss current and emerging molecular techniques and their use.			
<b>2. Specimen Processing</b>			
Demonstrate knowledge of procedures for handling improper/inappropriate specimens.			
Prioritize samples based on urgency of test requests.			
State the sample types acceptable for each test performed in the microbiology department.			
State the reason for rejection of samples according to department protocol.			
Correctly inoculates and streaks clinical material, using department protocol.			
Demonstrate knowledge of atmospheres (define ambient, anaerobic, increased CO <sub>2</sub> , and microaerophilic).			

3. Culture Work Up (As Available)			
Determine appropriate media for initial isolation for each specimen/source.			
State principle of biochemical tests used in identification of bacterial isolates.			
Demonstrate safe work practices such as autoclave, biohazard waste disposal, standard precautions, etc.			
Demonstrate proper inoculation, isolation, incubation, and quantitation techniques for the following:			
Clean Catch Urine			
Catheterized Urine			
Swabs			
Stool			
Tissue			
CSF/Other body fluids			
Other: Please specify in comment.			
Identify colonial characteristic of normal flora and pathogens from the following:			
Urine			
Stool			
Respiratory			
Genital			
Wound			
Sterile body site			
Other: Please specify in comment.			
Identify colonial characteristic of normal flora and pathogens including the following bacteria:			
<i>Staphylococcus aureus</i>			
Coagulase negative Staphylococci			
Beta hemolytic Streptococci			
Enterococcus			
Alpha hemolytic Streptococci			
Enterobacteriaceae			
Non fermentative GNB			
Neisseria			
Haemophilus			
Serotype bacteria based on serological procedures to include the following:			
<i>Salmonella/Shigella/E. coli</i>			
Beta streptococci			

State principle, performs and interprets antimicrobial susceptibility tests for the following: Kirby Bauer			
Beta lactamase test/screen			
Other: Please specify in comment.			
<b>4. Reporting Results</b>			
Perform and interpret gram stain results for the following: Sputum			
Urethral smear for GC			
Wounds			
Sterile Body Fluids			
Other: Please specify in comment.			
Properly identify results with “critical/panic” ranges and acts upon those results accordingly.			
State the clinical significance of abnormal results obtained, correlating patient results as to possible disease and/or therapy states.			
<b>5. Instrumentation</b>			
State the principle, performs and interprets operation of any automated equipment used in the laboratory (Ex: Vitek, MALDI-TOF, blood culture analysis).			
Perform necessary maintenance procedures.			
Correctly sets up ID and sensitivity panels.			
<b>6. Miscellaneous Tests Performed</b>			
Occult Blood			
Catalase			
Coagulase or Staph typing			
Bacitracin sensitivity or Strep typing			
Optochin sensitivity or Strep typing			
Oxidase			
Indole			
X and V factor requirements/Quad plates for Haemophilus			
Germ tube			
API and/or NHI			
PYR			
Wet mounts			
MRSA Screen Protocol			
Microdase disc			

Catarrhalis disc			
Gen Probe			
Participate in preparation of specimens to be sent to reference laboratories.			
<b>7. Anaerobes</b>			
Discuss proper specimen collection and transport of anerobic cultures.			
Select proper media for anaerobic cultures.			
Establish anaerobic environment for culture (GasPak, BioBags, etc).			
Recognize microscopic and colonial morphology of normal flora and potential pathogens.			
<b>8. Parasitology</b>			
Discuss proper specimen collection, transport and processing.			
Perform a concentration procedure.			
Prepare fecal smears (direct smear, iodine prep, concentrated smears and permanent smears).			
Participate in the reading of parasitic preparations for parasites.			
Prepare thick and thin smears for hemoflagellates.			
Recognize diagnostic stages of the following intestinal protozoa:			
Hemoflagellates			
Malaria			
Helminths			
Coccidian			
Examine department study slides.			
<b>9. Mycology</b>			
Discuss proper specimen collection, transport and processing.			
Perform wet mounts (KOH, India Ink, or LPCB).			
Perform and read slide culture.			
Identify morphological features of clinically significant fungi.			
Identify and select proper fungal media for a given source.			

Discuss clinical significance of fungal isolates from a given source and patient.			
Identify molds and yeast following the procedures set up by the laboratory.			
Examine department study slides.			
<b>10. Mycobacteriology</b>			
Discuss safety precautions for both patients and specimens.			
Process specimens including digestion and decontamination procedures.			
Perform and read acid fast stains, modified acid-fast stains and fluorescent stains.			
Identify isolates based on colonial and biochemical characteristics.			
Perform and/or discusses antimycobacterial susceptibility testing and therapy.			
Identify mycobacterial culture media.			
Classify the Mycobacteria species according to Runyoun groups.			
Examine department study slides.			
<b>11. Virology</b>			
Discuss proper specimen collection, transport and processing.			
Describe clinically significant viruses.			
Perform and/or discuss identification methods (culture, serology, molecular methods, etc).			



## Hematology and Coagulation Performance Checklist

Name: \_\_\_\_\_

Department: Hematology/ Coagulation

### INSTRUCTIONS FOR CLINICAL INSTRUCTORS – Please read carefully.

Clinical instructors need to place their INITIALS for each of the skills listed in the rows they have covered with the student. It is critically important that the student paperwork be reviewed daily.

This checklist serves for tracking skills that the student has performed or observed and is considered as achieving entry level competence as an MLS. Your date/initials are signing off the student as competent.

**Note:** Each affiliate hospital Hematology/Coagulation area has a unique configuration; comprising major and minor “workstations”. Each workstation differs in the number and type of equipment and complexity of testing performed. Even though the equipment mix will be different, there are several common tasks to be performed while rotating through the laboratory. By the end of the rotation, you should have performed these tests, under supervision, on all major pieces of equipment.

Please place the following letter(s) that coincide with the method of instruction.

P= Performed      O= Observed      D=Discussed      NP= Not Performed

Procedure	Method of Instruction	Date/ Tech Initials	Date/ Student Initials
<b>1. Quality Control (As available)</b>			
Perform QC on routinely used analyzers.			
Evaluate Levey-Jennings charts for Westgard Rule.			
Troubleshoot QC violations on all analyzers.			
Review and evaluate quality control data.			
Discuss/observe calibration procedure and protocol of different analytes.			
Discuss/observe frequency and procedure for linearity studies of equipment.			
<b>2. Patient Samples (As available)</b>			
Prioritizes samples based on urgency of test request.			
Correctly identifies patient samples.			

State the reasons for rejection of samples according to department protocol.			
State the sample types acceptable for each test performed in the hematology department.			
Evaluate samples for suitability for use: additive, QNS, etc.			
Identify preanalytical errors which will interfere with specific tests i.e., hemolysis, icterus, lipemia, etc.			
<b>3. Blood Cell Morphology and Manual Cell Differentiation (As available)</b>			
Prepare and stain blood smears for differential count and morphologic study of blood cells.			
Perform differential counts including WBC and platelet estimates on daily workload with results within values determined by supervisor.			
Lists the criteria for slides being reviewed by supervisor and/or pathologist.			
Identify and differentiate the common cell types found in peripheral blood.			
Complete normal differentials within +/- 20% accuracy of the counts performed by the automated method.			
Complete abnormal differentials within +/- 20% accuracy of the counts performed by the automated method.			
Complete reviews of RBC morphology within +/-20% accuracy of the clinical instructor.			
Identify and differentiate early and abnormal cells in peripheral blood.			
Calculate the corrected WBC count when nucleated red blood cells are present.			
State the clinical significance of certain blood cells and RBC morphology associated with clinical disease.			
<b>4. Automated Cell Counting Devices (As available)</b>			
Completes start up procedure for daily operation.			
Read/discuss principle of the instrument operation or test procedure reaction.			
Perform daily quality control and validate results within quality assurance program.			
Evaluate Levey-Jennings charts for Westgard Rule violations.			

Operate instrument in daily workload within time limits set by supervisor.			
Evaluate patient results for validity and acceptability.			
Perform routine maintenance procedures.			
Perform preliminary function checks for troubleshooting.			
Evaluate histograms/scatterplots for accuracy.			
State the clinical significance of abnormal results obtained, correlating to patient results as to possible disease and/or therapy states.			
Recognize “panic/critical values” and state action which must be taken when such a value is obtained on a patient sample.			
<b>5. Manual Hematology Procedures (As available)</b>			
Platelet counts/estimates			
Reticulocyte counts			
Erythrocyte Sedimentation Rate (ESR)			
CSF Count			
Other body fluid counts			
WBC count/estimates			
Hematocrit (spun)			
Sickle cell preparation or screening test			
Kleihauer-Betke stain or equivalent			
Flow Cytometry			
Buffy Coat preparation and stain			
Special Stains			
Malarial Smear			
Other: Please specify in comments.			
<b>6. Bone Marrow Procedure (As available)</b>			
Observe collection of bone marrow specimen, if available.			

Explain (orally or in writing) the procedure for collection of bone marrow specimens.			
Describe handling of specimens for examination of the marrow.			
Stain slides for bone marrow examination.			
Perform 1 bone marrow differential within +/-20% of supervisor.			
<b>7. Coagulation Analyzer (As available)</b>			
Complete start up procedure for daily operation.			
Read/discuss principle of the instrument operation or test procedure reaction.			
Perform daily quality control and validate results within quality assurance program.			
Evaluate Levey-Jennings charts for Westgard Rule violations.			
Operate instrument in daily workload within time limits set by supervisor.			
Evaluate patient results for validity and acceptability.			
Perform routine maintenance procedures.			
Perform preliminary function checks for troubleshooting.			
State the clinical significance of abnormal results obtained, correlating to patient results as to possible disease and/or therapy states.			
Recognize “panic/critical values” and states action which must be taken when such a value is obtained on a patient sample.			
Correctly prepares reagents for coagulation testing following manufacturer’s guidelines.			
Correctly performs operations on an automated coagulation instrument for the determination of PT, APTT, and Fibrinogen.			
<b>8. Miscellaneous Coagulation Procedures (As available)</b>			
Platelet Function (PFA)			
Platelet aggregation			
Thromboelastography (TEG)			
Fibrinogen			

Anti-Xa			
Antithrombin III			
PT and APTT correction/mixing studies			
Factor assays			
D-Dimer			
Other: Please specify in comment			

## Urinalysis and Body Fluids Performance Checklist

Name: \_\_\_\_\_

Department: Urinalysis and Body Fluids

### INSTRUCTIONS FOR CLINICAL INSTRUCTORS – Please read carefully.

Clinical instructors need to place their INITIALS for each of the skills listed in the rows they have covered with the student. It is critically important that the student paperwork be reviewed daily.

This checklist serves for tracking skills that the student has performed or observed and is considered as achieving entry level competence as an MLS. Your date/initials are signing off the student as competent.

**Note:** Each affiliate hospital Urinalysis and Body Fluids area has a unique configuration; comprising major and minor “workstations”. Each workstation differs in the number and type of equipment and complexity of testing performed. Even though the equipment mix will be different, there are several common tasks to be performed while rotating through the laboratory. By the end of the rotation, you should have performed these tests, under supervision, on all major pieces of equipment.

Please place the following letter(s) that coincide with the method of instruction.

P= Performed      O= Observed      D=Discussed      NP= Not Performed

Procedure	Method of Instruction	Date/ Tech Initials	Date/ Student Initials
<b>1. Quality Control (As available)</b>			
Perform QC on routinely used analyzers.			
Record and evaluate quality control data.			
<b>2. Physical and Chemical Tests (As available)</b>			
Validate clinical specimens, including specimen ID, preservatives (if necessary), and rejection of inappropriate samples.			
Organizes samples, reagents, and equipment utilizing priority.			
Perform routine physical and chemical tests accurately.			
Evaluate the need for confirmatory tests.			
Recall the effects of deterioration of urine specimens with prolonged sitting.			
Demonstrate knowledge of the principles and theories of the various dipstick and tablet tests.			

Recognize variations in results from normal and state the significance of the results.			
Dispose of specimens and reagents properly following established safety procedures.			
<b>3. Microscopic Examination (As available)</b>			
Prepare urine sediment for examination.			
Identify and enumerate clinically significant particles in the urine by use of stain or bright field, polarized, or phase microscopy.			
Enumerate red blood cells and white blood cells in unstained urine sediment.			
Identify the types of casts seen in urine sediment.			
Identify crystals found in urine sediment.			
State the clinical significance of crystals in normal and abnormal urine sediment.			
Identify and enumerate bacteria seen in urine sediment.			
Correlate the findings of microscopic structures with chemical tests and their significance.			
<b>4. Miscellaneous Tests</b>			
Specific Gravity			
Copper reduction (Clinitest)			
Acetest			
Semen Analysis			
Pregnancy Testing			
Other: Please specify in comments			
<b>5. Body Fluid Analysis (As available)</b>			
Discuss the proper collection, transport, and storage of body fluids: Synovial, CSF, BAL, Peritoneal, Other			
Perform cell count on fluids (CSF, Synovial, etc).			
Perform crystal evaluation on synovial fluids.			
Correctly evaluates gross appearance and color including xanthochromia, if relevant.			
Discuss the type and significance of crystals found in synovial fluid.			
Discuss the process for referral to pathologist for review.			





## Clinical Chemistry Performance Checklist

Name: \_\_\_\_\_

Department: **Clinical Chemistry**

### INSTRUCTIONS FOR CLINICAL INSTRUCTORS – Please read carefully.

Clinical instructors need to place their INITIALS for each of the skills listed in the rows they have covered with the student. It is critically important that the student paperwork be reviewed daily.

This checklist serves for tracking skills that the student has performed or observed and is considered as achieving entry level competence as an MLS. Your date/initials are signing off the student as competent.

**Note:** Each affiliate hospital Clinical Chemistry area has a unique configuration; comprising major and minor “workstations”. Each workstation differs in the number and type of equipment and complexity of testing performed. Even though the equipment mix will be different, there are several common tasks to be performed while rotating through the laboratory. By the end of the rotation, you should have performed these tests, under supervision, on all major pieces of equipment.

Please place the following letter(s) that coincide with the method of instruction.

P= Performed      O= Observed      D=Discussed      NP= Not Performed

Procedure	Method of Instruction	Date/ Tech Initials	Date/ Student Initials
<b>1. Quality Control (As Available)</b>			
Perform QC on routinely used analyzers.			
Evaluate Levey-Jennings charts for Westgard Rule.			
Troubleshoot QC violations on all analyzers.			
Review and evaluate quality control data.			
Discuss/observe calibration procedure and protocol of different analytes.			
Discuss/observe frequency and procedure for linearity studies of equipment.			
<b>2. Patient Samples (As Available)</b>			
Correctly identifies patient sample.			

Discuss the reasons and follow-up procedures for rejection of samples according to department protocol.			
Identify preanalytical errors and/or physiological conditions which will interfere with specific tests, i.e., hemolysis, icterus, incorrect tube additive, etc.			
Validate clinical specimens including specimen ID, proper anticoagulants, and rejection of inappropriate samples.			
Prioritizes samples based on urgency of test request.			
State the reason for rejection of samples according to department protocol.			
Labels transfer tubes completely and accurately.			
Stores samples in appropriate storage conditions.			
<b>3. Miscellaneous Tasks</b>			
Organizes samples, specimen log, reagents, and equipment.			
Read/discuss principle of instrument operation or test procedure reaction.			
Prepare reagents and standards as necessary.			
Maintain equipment in proper working order.			
Perform instrument startup and/or shutdown.			
Appropriately acts on results beyond the linearity and/or reportable range of the instrument.			
Discuss "critical/panic values" and reporting protocol.			
Assist in troubleshooting basic procedural problems.			
<b>4. Laboratory Calculations (As available)</b>			
Accurately performs dilutions using appropriate ratios and proper diluting fluid.			
Accurately performs creatinine clearance calculation.			
<b>5. Evaluation of Results Obtained (As available)</b>			
Validate results for reporting.			
Recognize abnormal values, correlate with other laboratory results, and explain the clinical significance correlating patient results to possible disease and/or therapy states.			

Reports approved results according to laboratory policy.			
State additional tests to perform when abnormal results are obtained.			
<b>6. Biochemical Testing (As available)</b>			
Perform Comprehensive Metabolic Panel to include the following: Glucose, BUN, creatinine, electrolytes, uric acid, total protein, albumin, T.bili, D.bili, Calcium, Magnesium (if performed), ALP, Phos, AST, ALT, CK, LD <b>Note: components of the panel may be run on different instruments separately</b>			
Perform Lipid Panel to include the following: Cholesterol, triglycerides, LDL, HDL Apolipoprotein (if performed) <b>Note: Student must include interpretation of cardiac risk</b>			
Perform Cardiac Marker testing to include: CK, CKMB, Troponin <b>Note: Student must be able to interpret results</b>			
Perform and can correctly evaluate results of the following tests:			
HbA <sub>1</sub> C			
CSF for protein, glucose			
Urine electrolytes			
Creatinine Clearance			
Amylase			
Lipase			
Ammonia			
Iron and TIBC			
Electrophoresis			

Body fluid analysis to include: Synovial, CSF, etc			
Osmolality			
Arterial Blood Gas (ABG) If instrument includes COOX and other metabolites as part of the menu, they should be included			
<b>7. Therapeutic Drug Monitoring, Toxicology/Endocrinology</b>			
Validate clinical specimens as appropriate to TDM, toxicology, and endocrinology test requested.			
Correlate TDM, toxicology, and endocrinology results to appropriate reference ranges.			
Recognize critical TDM, toxicology, and endocrinology values and respond in accordance with lab policy.			
Explain the principle of selected TDM, toxicology, and endocrinology procedures as required by the clinical instructor.			
Perform therapeutic drug testing from the following: Theophylline, Gentamycin, Tobramycin, Diazepam, Digoxin, Dilantin, Tegretol, Depakene etc.			
Perform drugs of abuse screen			
Perform hormone testing from the following: PTH, T3/T4, TSH, Cortisol, FSH, LH, PRL, ADH, HCG, Progesterone, Estrogen, etc.			

## Management and Ethics Performance Checklist

Name: \_\_\_\_\_

Department: Management and Ethics

### INSTRUCTIONS FOR CLINICAL INSTRUCTORS – Please read carefully.

Clinical instructors need to place their INITIALS for each of the skills listed in the rows they have covered with the student. It is critically important that the student paperwork be reviewed daily.

This checklist serves for tracking skills that the student has performed or observed and is considered as achieving entry level competence as an MLS. Your date/initials are signing off the student as competent.

Please place the following letter(s) that coincide with the method of instruction.

P= Performed      O= Observed      D=Discussed      NP= Not Performed

Procedure	Method of Instruction	Date/ Tech Initials	Date/ Student Initials
<b>1. Management</b>			
Participate in interdisciplinary patient care team events. Following the event, summarize health profession roles contributing to the team care of the patient and describe team efforts which lead to improved patient care.			
Discuss the process used to analyze the results of proficiency testing and how to generate a correction report.			
Protects patient's confidentiality at all times.			
Discuss the Point of Care Testing (POCT) system for the facility, if available.			
Discuss the accrediting bodies of the laboratory and hospital.			
Discuss competency assessment requirements of employees at the facility (frequency, who signs off who, etc.).			
<b>2. Safety</b>			
Review the chemical hygiene plan and describe any new information added within the last year.			
Review the biological waste disposal regulations applicable to the lab and explain how to perform adequately the biological waste disposal.			

Review the laboratory compliance plan and discuss with the lab manager the responsibilities of the lab manager and the delegation process applied to maintain compliance with all regulations.			
Review the facility's emergency procedures (needlestick, splashes, fire, etc.).			
Follows all clinical affiliate and OSHA safety requirements for working in a clinical laboratory.			
Manages problems logically and systematically, handling interruptions skillfully in stressful situations.			
Demonstrate the proper use of PPE.			
Locate and review Safety Data Sheets (SDS) for chemicals and reagents in the laboratory.			
<b>3. Communication</b>			
Completes written, oral, and electronic laboratory reports accurately, using the format of the clinical affiliate.			
Overall demeanor is polite, considerate, and shows self-confidence in a generally pleasant and firm diplomatic manner when dealing with patients and healthcare personnel.			
<b>4. Accountability</b>			
Listens to criticism and constructively acts upon suggestions to improve performance.			
Completes assignments in a timely manner.			
<b>5. Reliability</b>			
Keeps the working area and equipment clean and orderly without being reminded.			
Upon arrival at the laboratory, immediately assesses work to be done and gets started.			
Respects the policies of the facility in regard to start and ending time of rotation day, lunch and break time assignments.			
Respects workflow of the facility by giving advanced notice of absences of the lab.			

## Trajecsys Information

All clinical documentation will be recorded and stored in the Trajecsys system. Both students and preceptors must register at [www.trajecsys.com](http://www.trajecsys.com) to use the system. A fee is paid by the student for this document management system. There is no charge for the clinical site. Once a student has graduated, they may still access their clinical records for up to 7 years.

### *Registration*

If you have not already registered with Trajecsys, go to the Trajecsys website: <https://www.trajecsys.com> and then follow these directions:

- In the upper right-hand corner, click on Register
- Enter Thomas University as the Educational Institution
- Enter your name
- Click on New Student
- Choose MLS (your course name). You will not pay for this--the school will submit payment.
- Choose Georgia as the area
- Create your Username and Password

### *Clocking In and Out*

You MUST clock into your clinical site in order for your clinical preceptors to be able to complete your competencies and evaluations. Once you log on Trajecsys, you are on the "Clock In" page. Simply choose your site from the drop-down menu and then click clock IN. Note that you are immediately logged out of the Trajecsys system. That is because you should not be on the computer or phone while you are in clinicals. You should make note of the procedures you complete and who you worked with each day and enter that information into the Trajecsys system later. Return to the Trajecsys site and Clock Out after you complete clinicals for the day.

### *Daily Logs*

You must complete a Daily Log documenting whatever you do in clinicals and the preceptor you worked with EACH DAY.

- Log into Trajecsys
- Click on Logs
- Click on Add Logsheet
- Click on the department where you worked.
- Click on the skill that you worked on. For example, if you worked in Blood Bank and did Type and Screens, you will choose Immunohematology and then Routine Testing. If you watched a tech, then first enter Observed. You can then go back and enter the ones that you Performed.
- Choose the preceptor that you worked with. If the name is not listed, click on New Supervising Employee and enter the name.

- Enter the time that you spent on this skill in hours and minutes and then click NEXT.
- In the comment box, list the number of skills or procedures that you completed. Using the example above, you would enter "Completed 25 type and screens using the tube method."
- Click NEXT to complete your entry.

### *Weekly Log Journal*

You will also need to document a short summary of what you did each day in clinicals.

- Log into Trajecsys
- Click on Evaluations
- Click on Weekly Log Journal
- Type a 5-7 sentence summary of what you did in clinicals that week. Here is an example: "I worked in the Hematology department. I was able to run QC in the mornings on the LH 7800 analyzer. I ran level 1 and 3 as is the procedure for the morning shift. After that, I helped complete the morning run and made slides for the ones that needed manual diffs. Then I read the manual diff slides after the tech reported them out and compared my results with hers. I also ran the daily QC on the Hemolyzer 3000."
- Click Submit
- Click on the little X on the right side of the box to exit

### *Automation Report*

You will need to complete an Automation Report on any analyzer that you work with and/or are trained on. You may wait until you have finished your department rotation or complete this as you go along.

- Log into Trajecsys
- Click on Evaluations
- Click on Automation Report
- Click on the department
- Fill out the information for each question/item.
- Click Submit

### End of Rotation Evaluations

Once you have completed your clinical rotation, you will need to complete 2 different evaluations on the site and department. You will complete them for EACH department.

- Log into Trajecsys
- Click on Evaluations
- Click on Clinical Affiliate Orientation Checklist (You can complete this one when you begin your rotation)
- Fill out the evaluation
- Click on Submit



- Click on Clinical Rotation Student Evaluation (Completed at the end of your department rotation)
- Fill out the evaluation--put the department in comments
- Click on Submit

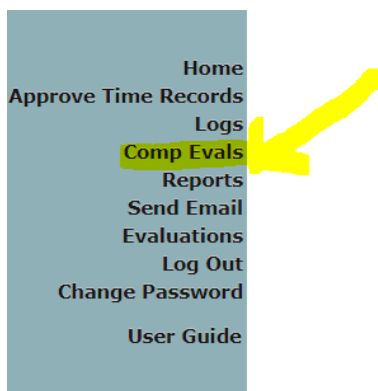
## SUPERVISOR/PRECEPTOR INSTRUCTIONS FOR USING TRAJECSYS

Register in Trajecsyst at [www.trajecsyst.com](http://www.trajecsyst.com). Select Register at the top of the screen and then enter Thomas University-Medical Laboratory Science as the College/Institution name. Select No for Current/New Student and Georgia as the area. The rest of the information will be specific to you. Once you sign up, I will receive an email, assign you to your site, and grant your user privileges. There is no charge to sign up as a preceptor.

You will need to complete both the Comp Evals (Competency Tasklists) and the Professional Evaluation for each area that you are preceptoring.

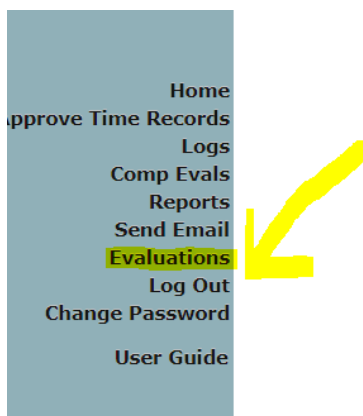
- Choose the Area as Georgia (No matter what state you are in—that is where the school is)
- Choose your Site

To submit Competency Evaluations, choose Comp Evals from the menu on the left



Choose the Site, Student, and department (Major Study) you are evaluating. You can then choose the procedures the student has completed/competent. Once you have submitted it, the system will ask if you want to submit again. Just exit out of that comment and pull down the next procedure menu.

Next, you will need to complete the Professional Evaluation. Choose the highlighted tab

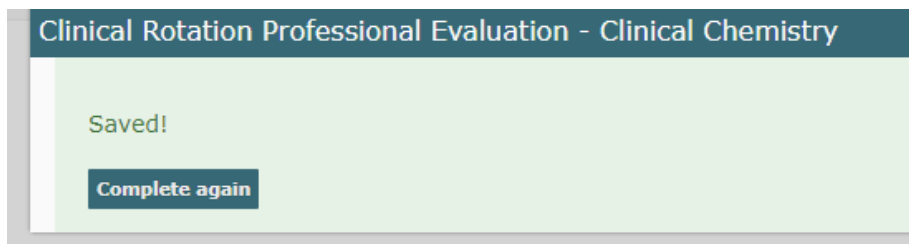


Choose Clinical Rotation Professional Evaluation –enter department Enter the student name in the Subject line and then the site from the pull down menus. Click on the department/area. An evaluation should be completed for each department. Click on the department you are completing competencies.

- Clinical Chemistry
- Heme / Coag
- Immunohematology
- Immunology and Molecular Techniques
- Microbiology
- Urinalysis
- Management / Work Ethic
- Specimen Collection and Processing

Select the student you are evaluating for the Subject line and then select your site.

Select the number that you are awarding as the grade, any comments, and then select “submit” at the bottom. Please note that 3 is meeting standards, but will result in a grade of 70 if you just save the default score. You can also enter a comment on a specific evaluation line by clicking on the thought bubble on the right hand side. Please note that once you submit the form, it will automatically ask if you want to complete again. As long as it lists it as Saved!, you are done with that evaluation.



If you want to check or view what you have submitted, go to [Reports](#) then click on either the [Completed Comp Exams](#) or [Completed Evaluations/Forms](#) depending upon what you want to check.

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blank.



**MEDICAL LABORATORY SCIENCE PROGRAM**

**CLINICAL HANDBOOK**

**2024-2025**

I, \_\_\_\_\_, certify that I have a copy of the MLS Clinical Handbook for the academic year 2024-2025. I have reviewed the information carefully and understand that I am accountable for all the information in the Handbook. I further understand that I am responsible for clarifying with the MLS Program Director/Clinical Coordinator any areas that I do not understand.

I have been given the opportunity to ask any questions that I have about the Clinical Handbook.

I have read, understand, and agree to perform the duties of my clinical practicum/internship as described in the handbook.

I have been advised that the information in the MLS Clinical Handbook is valid for the period beginning August 2024 and ending when superseded.

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

\_\_\_\_\_  
Date