

Columbia State Community College
Medical Laboratory Technician Program
Student Handbook & Clinical Practicum Manual
2024 - 2025

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Columbia State Community College

Medical Laboratory Technology Program

The Columbia State Community College MLT program was terminated in approximately May of 2002. Area hospitals contacted the College in spring of 2015 and inquired about restarting the MLT program. In cooperation with several area hospitals, Columbia State Community College submitted a Letter of Intent to the Tennessee Board of Regents in June 2015 for a new MLT Program. The program proposal was subsequently approved by the college curriculum committee, the Tennessee Board of Regents, and the Southern Association of Colleges & Schools, Commission on Community Colleges (SACS-COC.) The inaugural cohort began core coursework summer semester 2017.

Columbia State Community College Medical Laboratory Mission Statement

The Mission of the Columbia State Community College MLT Program is to produce knowledgeable, competent, compassionate, professional Medical Laboratory Technicians.

History

Under the direction of Admissions Director, W.O. Johnson, Columbia State Community College's first class of 363 students began classes in the fall of 1966. The college was temporarily housed in facilities throughout the city of Columbia until the present campus was completed. On March 15, 1967, Lady Bird Johnson, accompanied by President Lyndon B. Johnson, officially dedicated the new Columbia campus.

Lady Bird declared Columbia State to be the "new beat and rhythm of our land" and stated "when a community college rises from a once empty field, the country expands not outward, but upward... I am honored to dedicate this college - dedicate it forever to the service of the people and the progress of our nation."

That day, more than fifty years ago, President Johnson also addressed a crowd of over 8,000 dedication ceremony attendees. Many who still live in Columbia and the surrounding area love to tell stories of the day and remembrances as if the Johnsons were here just yesterday.

Columbia State's proud history shines through into today's academics. Students, faculty and staff hold their heads high and are extremely proud to be part of such wonderful history and tradition.

The college now serves close to 10,000 students per year in credit and continuing education courses and awards more than \$10 million in financial aid. Two academic divisions offer students more than 50 programs of study and the opportunity to earn a certificate, associate of arts (A.A), associate of science (A.S.) or associate of applied science degree (A.A.S.). In addition to the original Columbia campus, the college has campuses in Franklin, Lawrenceburg, Lewisburg, and Clifton.

Institutional Accreditation

Columbia State Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award the Associate of Arts degree, Associate of Fine Arts degree, Associate of Science degree, Associate of Applied Science degree, Associate of Science in Teaching degree, and Technical Certificates. Contact the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call (404) 679-4500 for questions about the accreditation of Columbia State Community College.

Columbia State Community College Campus Locations:

Columbia
1665 Hampshire Pike
Columbia, TN 38401
(931) 540-2722

Clifton Site
795 Main Street
Clifton, TN 38425
(931) 676-6966
Fax: (931) 676-6941

Lawrence County Center
1620 Springer Road
Lawrenceburg, TN 38464
(931) 766-1600
Fax: (931) 766-1602

Lewisburg Site
980 South Ellington Parkway
Lewisburg, TN 37091
(931) 359-0351
Fax: (931) 560-4118

Williamson County Center
1228 Liberty Pike
Franklin, TN 37067
(615) 790-4400
Fax: (615) 790-4405

Equal Opportunity

Columbia State Community College is an equal opportunity and affirmative action employer and does not discriminate on the basis of race, color, gender, sexual orientation/gender identity, religion, ethnic or national origin, sex, age, disability status, or status as a covered veteran in Educational and employment opportunities, and is committed to the education of a non-racially identifiable student body. Inquiries or complaints should be directed to the Director of Human Resources, Room 116, Pryor Administration Building, 1665 Hampshire Pike, Columbia, TN 38401; Telephone (931) 540-2521.

Columbia State Community College Program Goals

Fulfillment of the MLT Programs Mission will be based on the following goals and outcomes based on student achievement.

Goal 1: Students will demonstrate knowledge consistent with the pathology of the field.

- 1.1 Students will recognize a pathology and the corresponding test results.
- 1.2 Students will communicate tests results to diverse healthcare team members.
- 1.3 Students will apply knowledge to laboratory skills required in a clinical setting.

Goal 2: Students will demonstrate competence in the field of Laboratory Medicine.

- 2.1 Students will perform laboratory testing with precision and accuracy.
- 2.2 Students will perform practice lab competency testing with precision and accuracy.
- 2.3 Students will comply with safety and governmental regulations.
- 2.4 Students will possess basic entry-level skills of a Medical Laboratory Technician.

Goal 3: Students will emulate the professional standards of the laboratory field.

- 3.1 Students will abide by the ASCP Code of Professional Behavior.
- 3.2 Students will adhere to medical facility guidelines.
- 3.3 Students will adopt positive working attitudes aligned with facility's mission and goals.
- 3.4 Students will respond appropriately to healthcare team members with respect.

Goal 4: Graduates will contribute to the needs of the Medical Laboratory field.

- 4.1 Admitted students will successfully complete the MLT Program.
- 4.2 Graduates will pass a nationally recognized laboratory exam resulting in certification.
- 4.3 Graduates will acquire a position as Medical Laboratory technician.
- 4.4 Graduates will express satisfaction with the educational experience.
- 4.5 Employers will express satisfaction with graduates as entry-level MLT's.

The MLT program mission and goals is consistent with the mission and goals of the college. Achievement of the goals is monitored annually via Outcomes Assessment plan.

Columbia State Community College MLT Program Clinical Practicum Goal:

The Clinical Practicum experience provides students with an opportunity to reinforce classroom theory and activities with practical hands-on experiences and learn professional behaviors needed to become successful in the clinical laboratory science profession. The clinical experience also provides for the student to master the basic entry level skills needed by an MLT.

Columbia State MLT Program Director

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931-540-2706

Health Sciences Division Office

Walter Building, Room 112
Columbia Campus
healthsciences@columbiastate.edu
931-540-2599/2600

Columbia State MLT FacultyCourses

Lisa Harmon MS, MLS (ASCP) SBB^{CM}
Jennifer Sullivan BA, MLS (ASCP)
Chrissi Emaminejad BS, MLT (ASCP)^{CM}

MLAB Intro. To Medical Laboratory
MLAB Urinalysis / Body Fluids
MLAB Clinical Microbiology
MLAB Clinical Immunology
MLAB Hematology
MLAB Clinical Chemistry
MLAB Blood Bank
MLAB Practicum I, II, III, IV
MLAB Seminar I

The Profession

The Medical Laboratory Technician (MLT) is employed in clinical laboratories of hospitals, clinics, physician's offices and other health care facilities performing a variety of laboratory procedures and diagnostic tests. Laboratory tests are performed on body fluids such as blood which is obtained by the technician through venipuncture.

The MLT works as a bench technician under the direct supervision of a physician and/or medical technologist in the areas of blood banking, clinical chemistry, hematology, microbiology, urinalysis, coagulation, and immunology. The MLT is an integral part of the health care team focus on providing optimum patient care. The technician monitors quality control, performs maintenance on equipment and instruments, applies basic scientific principles to laboratory techniques and procedures, recognizes factors that affect procedures and results taking corrective action when indicated, relates laboratory finding to common disease processes, and interacts with other health care personnel and patients. The average annual MLT Salary in Tennessee is \$49,336 with an average hourly rate of \$23.72 per hour (February 2023).

The Program

Columbia State's program is designed with a focus on general education/foundation courses Fall/Spring of the first academic year. A new cohort of students will start the intense sequence of core courses each summer for three semesters (12 months). The program provides a competency-based classroom and clinical experience which provides students with the tools for licensure examination success, gainful in-field employment, and career satisfaction.

Program Accreditation

The Columbia State MLT Program received a five-year Initial Accreditation award in 2019:
National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
5600 N. River Road, Suite 720
Rosemont, IL 60018-5119
773.714.8880

<https://www.naacls.org/>

The associate degree earned, along with the NAACLS recognition of Columbia State's MLT Program, qualifies completers to test with certifying bodies such as the American Society of Clinical Pathologists Board of Certification (to earn MLT-ASCP credentials and with the American Medical Technologists (to earn MLT-AMT credentials).

Certificate to Operate

The Columbia State MLT Program is approved by the Tennessee Medical Laboratory Board. The Board is located at 665 Mainstream Drive, 2nd Floor, Nashville, TN 37243. (615) 532-3202.

Medical Lab Technology (MLT) (A.A.S.) Admission Requirements

1. Meet all college general requirements for admission as a degree-seeking student (as stated in the catalog) and be admitted to the college.
2. See "Programs with Special Admissions Requirements," in the college catalog.
3. Complete all required Learning Support competencies (or be exempt by virtue of college level course credit in designated disciplines) by the end of the fall semester prior to the year in which admission is sought.
4. Have earned a cumulative grade point average (GPA) of 2.5 or above on a 4.0 scale for academic subjects. The high school GPA is used for students who have earned less than 12 college credit hours. An applicant who has not earned 12 credit hours of college level credit that has no high school GPA must have an average standard score of at least 450 on the GED or 45 on the HiSET.
5. Open Information Sessions are offered for prospective students in December and January each year. A general orientation is included in the Introduction to Medical Laboratory course offered each spring semester. Students have ample time to become acquainted with the program and have questions answered. Another orientation session is held each May for students beginning core program courses summer semester.
6. All program application requirements must be completed before February 28. This includes the review of the MLT Student Handbook which is located in Charger Net under Academics > Academic Paths > Medical Laboratory Program > MLT Handbook.
7. Before beginning the MLT program, all students attest to the ability to meet the technical standards expected of medical laboratory professionals:
 1. **Vision:** Able to read and interpret charts, graphs, and labels; read and interpret instrument panels and printouts; discriminate colors, hue, shading or intensity and clarity; read microscopic material and record results.
 2. **Speech and Hearing:** Able to communicate effectively and sensitively in order to assess non-verbal communication; adequately and accurately transmit information; follow verbal or written communication; have clarity of speech especially if English is not one's first language.
 3. **Motor Functions:** Possess all skills necessary to carry out diagnostic procedures; manipulate tools, instruments and equipment, perform phlebotomy safely and accurately; travel to a clinical site for clinical experience.
 4. **Behavioral Requirements:** Possess the emotional health required for full utilization of applicant's intellectual abilities; be able to recognize emergency and take appropriate action.
 5. **Physical Requirements:** Able to complete fine repetitive hand movements; twist and bend; handle flammable and infectious materials; handle hazardous chemicals and electrical equipment; lift ten (10) pounds; maintain prolonged sitting or standing positions; maintain concentration with distracting noises and close proximity to fellow workers; tolerate unpleasant odors; work in buildings either above or below ground level; work in an environment without windows; perform keyboarding.
 6. **Critical Thinking:** Able to appropriately and accurately perform complex interpretative testing.
 7. **Professionalism:** Able to maintain a professional attitude and appearance as described in the MLT Student Manual.

8. College credit for Biol 2010 (A & P I), Biol 2020 (A & P II), Biol 2230 (Microbiology), and Math 1530 (Statistics), must be within the past 5 years of starting the program with minimum grade of "C" or higher. A student enrolled in one or more of these courses concurrent with MLAB 1301 (Intro to Med Lab) during the spring semester when the program application is submitted may be offered program admission contingent upon completion of course(s) with a grade of "C" or higher.

Completion of all items listed above denotes eligibility for consideration for MLT Program admission but does not imply or guarantee admission to the program.

Once admitted, students are required to submit documentation of the following clinical access clearance items prior to the first day of clinical assignment. If the documentation is not completed prior to the first day of clinical assignment, students will not be permitted to go to clinical.

1. Health Requirements: All MLT students must submit evidence of good health by returning a completed Physical Examination form. Forms are provided to students upon acceptance into the program. All students must meet clinical facility requirements for: TB screening. (May include TB skin tests and/or chest x-rays within three months prior to the start of the clinical practicum.)
2. Evidence of Immunity for: (vaccine or titer depending on facility requirements)
 - a. Rubella
 - b. Varicella zoster (chicken pox)
 - c. Rubeola titer
 - d. Tetanus/diphtheria booster within the past ten years
 - e. Hepatitis B
 - f. Seasonally current Influenza immunization
 - g. Other immunizations (or affiliate approved exemption request, if applicable) required as a condition of clinical partner access.
- b. CPR (Cardiopulmonary Resuscitation) Requirements: All admitted students must submit evidence of current BLS (Basic Life Support) certification. The certification must include on-ground/live competency components, 100% online is not acceptable. At a minimum, the training course must comply with American Heart Association (AHA) standards. Inclusion of two-person CPR and AED (Automatic Electronic Defibrillator) use is required. BLS classes are available through numerous providers and are periodically offered by Columbia State through the Economic & Workforce Development (EWD) office. Certification must be maintained continuously for the duration of enrollment.
- c. Liability insurance is required for all MLT clinical practicum courses. Students are covered by the college's group policy. The fee is assessed annually as a course fee.
- d. Health insurance is required. Students must provide evidence of health insurance coverage before clinical assignments may begin.
- e. Criminal background checks and routine drug screens are required at most affiliated clinical training sites as a condition of participation in clinical education. Based on the results of these tests, an affiliated clinical site may determine to not allow your presence at their facility. This could result in the inability to successfully complete the requirements of a specific course and the program. More information is available from the program director.
- f. Students are required to provide vaccine evidence and/or titer results documenting levels of immunity to program or institutional officials.



Health Information Checklist for New Admissions

Phone: (931) 540-2849 Fax: (931) 560-4103

Email: healthrecords@columbiastate.edu

Students entering The Medical Laboratory Program at Columbia State must submit evidence of good health, a background and a 10-panel urine drug screen including urine alcohol. Please upload all Health information forms to the Clinical Access Documents (CAD) course in online campus on or before your mandatory orientation. Once you are placed in the CAD course you will receive an email from healthrecords@columbiastate.edu, check your Columbia State Email regularly for this email. Should you have any questions you can call (931) 540-2849 or email healthrecords@columbiastate.edu

Please use this form as a tool to stay on track with your healthcare information needed for clinical. Do not return it with your paperwork.

- A. Complete Program Physical form _____
- B. Have your healthcare provider complete your Immunity Verification Form _____
- C. TB skin test within 12 months of start of program
PLEASE NOTE: If TB skin test is positive you must then show evidence of a normal Chest X-ray _____
- D. (MMR) Rubeola, Mumps, Rubella, (IGG) Titer or Vaccine dates (Lab Reports are Required) _____
- E. Varicella Zoster (IGG) Titer (Lab Reports are Required) _____
- F. Tetanus/Diphtheria/Pertussis (Tdap) Booster (Must be within 10 years) _____
- G. Hepatitis B Titer and Series or signed declination form (Hepatitis B is mandatory—can decline for religious or a verifiable medical reason) _____
- H. **Active Basic Life support (BLS) through American Heart Association.** _____
- I. Proof of Current Health Insurance
(Front & Back copy of insurance card) _____
- J. COVID Immunization or signed declination form (COVID vaccine is mandatory – can decline for religious or a verifiable medical reason) _____
- K. Background Check and 10-panel urine drug screen with urine alcohol _____
- L. Seasonal Influenza Immunization
(**MANDATORY**--available in August for Fall semester and due on or before September 24th must be included in healthcare paperwork for Spring semester. **Summer does NOT need an Influenza Immunization.**) _____

****Background and drug screening information will be listed in the CAD course in the online campus. You will gain access to this course when you are admitted to the program. Not before!***

CBC and Drug Screen are time sensitive; if done too early student may have to pay and process again. Be sure to pay attention to any dates provided by program director or health records clerk. Chain of Custody forms (required for Drug Screen) are available from the Drug Screening Location!

**Authorization to Release Medical Information on Students
Requested by Clinical Affiliates**

As a student in the Columbia State Community College Medical Laboratory Technology Program, I hereby authorize the Columbia State personnel to release medical information about myself requested by the clinical site affiliate concerning required immunizations, immune status testing, TB skin test results, and my student physical examination. I understand that this information will be used strictly for clinical site access requirements and will be held as confidential information.

Print Name _____

Signature _____

Date _____

Admissions Procedures

1. Submit the following to the Admissions office.
 - a. Completed Application for Admission to the College.
 - b. Official college transcripts from all colleges previously attended.
 - c. High school transcripts or High School Equivalency Diploma - HISET (GED)
 - d. ACT or SAT exam results.
2. Register for the Introduction to Medical Laboratory course.
3. Submit completed MLT program application forms to the MLT Program Director by February 28.
4. If an applicant does not meet the admission criteria, he/she will be notified in writing. If the applicant wishes to complete his/her file and application to establish eligibility for consideration the following year, remaining requirements must be submitted and the program director must be notified of the intent in writing.

Continuation Requirements

In order to continue in the MLT Program, students must meet the following academic requirements:

1. Earn a "C" or higher in each MLAB course and each required math and science course.
2. Maintain a minimum GPA of 2.0 after admission and prior to enrollment as well as during each term of enrollment in the program.
3. Maintain professional conduct as outlined in the MLT Student Policy Manual.
4. Enroll in all required general education courses during (or before) the semester listed in the curriculum outline.
5. Submit annual TB skin test results to the Health Sciences Records Clerk's office in the William R. Walter Bldg. on the Columbia campus.
6. Maintain evidence of uninterrupted medical insurance coverage in designated program/institutional offices.

Students who do not meet the continuation requirements will be dismissed from the Medical Laboratory Technology Program. Students who have been dismissed from the program may be qualified to continue courses in the college, but will not be permitted to register in MLAB courses without readmission to the program.

MLT Selection Process

Selection Process:

Only students who have completed applications will be considered for entry into the Medical Laboratory Program. All science prerequisite courses must be completed upon admission into the program. Once all admission documents have been received, applicants will be selected on total points for the following criteria:

ACT Scores: <19	0 points
19-21	1 points
22-25	2 points
>26	3 points
No ACT Score	0 points

Overall HS

College GPA: less than 2.5	0 point
2.5-2.7	1 points
2.7-3.0	2 points
3.1-3.4	3 points
> 3.5	4 points

Grades for coursework in the following:

A& P I	A= 4 points
A& P II	B= 3points
Microbiology	C= 2 points
Introduction to Med Lab	

Work Experience in the Medical Field

Two points for each year worked up to a maximum of 10 points. A year is considered 1500 hours of work. Part-time and volunteer will be considered on a Pro-rated scale. (Must provide documentation)

If you already possess a degree:

Associates Degree	2 points
Bachelor's Degree	4 points
Master's and above	6 points

I HEREBY ASSUME FULL RESPONSIBILITY FOR RISK OF BODILY INJURY, DEATH OR PROPERTY DAMAGE that I experience while a student in the Columbia State Community College Medical Laboratory Technology Program and participating in activities contemplated by this RELEASE, caused by the negligence of the Columbia State Community College, its officers, agents, servants, employees, assigns, or successors or students of the Columbia State Community College Medical Laboratory Technology Program.

I HEREBY REPRESENT that I am physically able, with or without accommodations, to participate in the above referenced activities.

I HAVE READ AND VOLUNTARILY SIGN THE RELEASE AND WAIVER OF LIABILITY, and further agree that no oral representations, statements of inducement apart from the foregoing written agreement have been made.

Student Signature: _____

Student Printed Name: _____

Witness to Student Signature: _____

Witness Printed Name: _____

Date: _____

Teach Out Plan

In the event of program closure, the Columbia State Community College Medical Laboratory Teach Out Plan is as follows:

1. If closure is due to exceptional or uncontrollable circumstances, such as natural disaster, and the college will reopen the program within 12 months, then the students will reenter the program and progress as previously planned.
2. If closure is due to exceptional or uncontrollable circumstances, such as natural disaster, and the college will not reopen, efforts will be made to contact MLT Programs within the Tennessee Board of Regents Community College System to request students be transferred into other programs.
3. If the closure is due to the college's decision to no longer offer the program, then all enrolled students will progress as planned. No new students will be admitted to begin the program. Columbia State would continue to provide the necessary resources and support to allow enrolled program students the opportunity to complete program requirements.

Academic Advising

Although educational decisions are ultimately the student's responsibility, it is important that every student receive academic advising to ensure the best possible choices are made. All faculty advisors are available to students for consultation and maintain regular office hours for this purpose. Students will be assigned advisors by mid-term of their first semester of study. Students have access to Degree Works Degree Audit Worksheets in My Charger Net. These audits indicate the courses completed, in-progress, and remaining toward particular degrees or certificates.

Optional Observation at a Clinical Site

Students are encouraged before entering the program to obtain or complete an observation experience at either an area hospital, doctor's office, or reference lab. Students are encouraged to complete this observation before entering the first MLT core courses the following Summer Semester. The purpose of observation is to ensure students are aware of the types of work involved in the MLT profession. This experience is limited to observation. Contact the Program Director for a list of sites which might provide this experience for potential Columbia State MLT students. All students are encouraged to perform this observation to gain a better understanding of what working in this area involves and what type of testing Medical Laboratory Technologists actually do each day.

Health Insurance Requirement

All MLT students are required to show proof of health insurance coverage. Students will be at area hospital laboratories and clinics gaining "hands on" experience in the laboratory. Health insurance coverage will be required for clinical practicum. Many healthcare facilities require coverage and most all allied health programs with the colleges require health care coverage.

Institutional Fees and Refunds

Columbia State Community College publishes its catalog periodically and contains within the catalog its policy on fees and refunds. This catalog can be accessed on Columbia State Community College website. Please refer to the section on fees and refunds as early as possible so you know and understand this policy.

Student Conduct

Students shall conduct themselves in a manner which reflects common standards of decency, and an awareness of the rights of others. Students shall be disciplined only for good cause, which shall include, but not be limited to, the following categories of misconduct:

1. Academic dishonesty, including, but not limited to, cheating and plagiarism.
2. Unauthorized preparation, giving, selling, transfer, distribution or publication, for any commercial purpose, of any contemporaneous recording of an academic presentation in a classroom or equivalent site of instruction, including but not limited to handwritten or typewritten class note, except as permitted by any policy or administrative procedure.
3. Dishonesty, forgery, alteration, or misuse of Columbia State Community College documents, records of identification.
4. Obstruction or disruption as applied to the academic (classroom and clinical environment), means verbal and other behavior in the academic setting that a reasonable faculty member or clinical instructor judges as interfering with normal academic and clinical functions. Examples include, but are not limited to, speaking persistently without being recognized, persistently interrupting other speakers, verbal and other behavior that distracts the class from the subject, intimidation, physical threats, harassing behavior, personal insults, and refusal to comply with directions from faculty or clinical site instructors. This includes Columbia State Community College activities, including its public service functions, or of other authorized activities, including clinical experiences.
5. Physical or verbal abuse of any person or conduct which threatens or endangers the health or safety of any such person or disrupts the learning environment.
6. Committing or attempting to commit robbery or extortion.
7. Causing or attempting to cause damage to Columbia State Community College property or private property on campus.
8. Stealing or attempting to steal Columbia State Community College property or private property on campus, or knowingly receiving stolen Columbia State Community College property or private property on campus.
9. Willful misconduct that results in injury or death to a student or to Columbia State Community College personnel or which results in cutting, defacing or other injury to any real or personal property owned by Columbia State Community College or on the campus.
10. Unauthorized entry to or use of Columbia State Community College facilities.
11. Violation of Columbia State Community College policies or of campus regulations including those concerning registration of student organizations, use of Columbia State Community College facilities, or the time, place and manner of public expression.
12. Unlawful possession, use, sale, offer to sale, or furnishing or being under the influence of intoxicant of any kind; or unlawful possession of, or offering, arranging or negotiating the sale of any drug paraphernalia, as defined by Tennessee law.
13. Use, possession or sale of any firearm, knife, explosive, or other object that could be classified as a weapon (unless the student has specific authorization from a Columbia State Community College official); persistent defiance of authority or persistence abuse of Columbia State Community College personnel.

14. Disruptive behavior, willful disobedience, habitual profanity or vulgarity or the open and persistent defiance of authority or persistence abuse of Columbia State Community College personnel and Instructors.
15. Gambling on Columbia State Community College property.
16. Hazing or any act that injures, degrades, or disgraces or tends to injure, degrade or disgrace any fellow student or other persons.
17. Disorderly conduct or lewd, indecent or obscene conduct or expression on Columbia State Community College owned or controlled property or at Columbia State Community College sponsored or supervised functions.
18. Willful or persistent smoking in any area where smoking has been prohibited by law or by regulation of the Columbia State Community College; Columbia State is a smoke and tobacco free campus; students must also adhere to clinical facility smoking/tobacco policies.
19. Theft or abuse of computer time, including but not limited to:
 - a. Unauthorized entry into a file, to use, read or change the contents or for any other purpose.
 - b. Unauthorized transfer of a file.
 - c. Unauthorized use of another person's identification and password.
 - d. Use of computing facilities to send obscene or abusive messages or to defame or intentionally harm another person.
 - e. Use of computing facilities to interfere with normal operation of the college computing system.
 - f. Use of computing facilities for student's personal benefit.
20. Committing sexual or any other form of harassment which creates a hostile learning environment as defined by law or set forth in Columbia State Community College Policy.
21. Engaging in harassing or discriminatory behavior based on race, sex, religion, age, national origin, disability or any other status protected by law.
22. Engaging in expression which is obscene, libelous or slanderous (whether on campus or by electronic submission on computer sites/social networks such as Facebook or which so incites students as to create a clear and present danger of the commission of unlawful acts on Columbia State Community College premises, or the violation of lawful College regulations, or the substantial disruption of the orderly operation of the Columbia State Community College facilities.
23. Conduct which is prohibited by local, state, or federal law which substantially disturbs or disrupts the Columbia State Community College's educational programs or activities.
24. Persistent, serious misconduct where other means of correction have failed to bring about proper conduct.
25. Unacceptable hygiene and/or dress that disturbs or disrupts the Columbia State Community College educational programs or activities.

26. The use of certain electronic devices, including but not limited to PDA's, pagers, cell phones, camera phones, digital cameras, blackberry's, and other electronic communication and entertainment devices (e.g. CD players, tape players, MP3's, etc.) in classes or labs.
27. Gross misconduct by any standard.

Consequences

Instructors will attempt to give a verbal warning to students if the behavior is not egregious.

In any and all cases of misconduct, an instructor can temporarily/immediately dismiss a student from class and/or clinical site.

A student can be counseled and a meeting between the student, the instructor, and the Program Director can take place if warranted and if the student's attitude is appropriate.

When a student is dismissed from a class they lose credit for any work missed that day and for other classes that were indirectly affected. If a student is dismissed from a clinical site for inappropriate behavior, they fail the course and must re-enter the program at a later date. The student will be unable to complete course/program objectives and counseled to withdraw. The student may have the option of applying for re-admission to the program at a later date depending upon the nature of the violation.

MLT Behavior Checklist (Classroom, Laboratory, and Clinical Behavior)

Initial each of the following indicating agreement to:

- Follow instructions provided by academic and clinical instructors
- Demonstrate respect for academic and clinical instructors
- Speak kindly and patiently with patients and classmates
- Refrain from using foul and/or offensive language at all times
- Accept responsibility for my own actions
- Be consistently on time and present for class and practicum
- Keep my comments and thoughts to myself unless relevant to course/program.
- Refrain from causing/engaging in strife, discord, or drama in class/lab or clinical sites
- Refrain from sharing irrelevant personal comments, opinions, and/or problems
- Avoid openly complaining about Columbia State Community College and/or MLT Policies
- Refrain from using my cell phone in the classroom and at the clinical site
- Observe all safety protocol(s)
- Follow a dress code appropriate for professionals in the lab sciences field
- Follow appropriate grooming habits for professionals in the lab sciences field
- Follow ASCP/BOC guidelines for Ethical Behavior
- Perform duties as assigned in the classroom and clinical site in a professional manner
- Not argue with or contradict any instructor, colleague, classmate, or patient
- Maintain confidentiality (no gossip or unnecessary information sharing) in accordance with professional standards
- Welcome feedback and suggestions as tools for continuous improvement
- Not cause disruption in the classroom, lab, or clinical setting
- Not disrespectfully debate/challenge academic or clinical policies
- I understand to progress from one clinical practicum course to the next I must score average or above on evaluations, must not have more than one absence, and must be tardy no more than once (discuss extended illness/extenuating circumstances with program director).

I have reviewed the MLAB program expectations listed above and my obligations regarding professionalism in class, lab, and clinical. I understand and accept the possibility I may be unsuccessful in a course or dismissed from the program for failure to demonstrate appropriate levels of professional conduct.

Print Name _____ Sign Name _____ Date: _____

CRIMINAL BACKGROUND CHECKS

1. The criminal background check must be completed within a three (3) month period prior to the student beginning her/his clinical experience.
2. The criminal background search will encompass the student's records from the state of Tennessee. In the event a student has moved from another state to the state of Tennessee within the last twelve months, a background check, at the students' expense, will be conducted in both states.
3. If the background check indicates the student has a criminal conviction, he/she will first be given the opportunity to refute the record. Should the conviction record stand, the clinical facilities will be notified of the circumstances in a redacted format, and at the clinical facilities' discretion, the students may be prohibited from taking part in the facilities, affiliate programs.
4. If the facility refuses the student access to the clinical experience at its facility and the student is unable to complete their clinical experience, the student will be dropped from the program.
5. Reasonable efforts will be made to ensure that results of criminal background checks are kept as confidential as possible with a limited number of persons authorized to review results.

DRUG TESTING

As a condition of an assignment to a clinical educational experience, with a facility requiring a drug test, the student will be required to submit to a drug test by a party selected by the Columbia State Community College, and paid for by the student, and non-refundable.

All drug screening must be conducted in accordance with the procedures of the United States Department of Health and Human Services as outlined in the "Mandatory Guidelines for Federal Workplace Drug Testing Programs". The testing agency shall select a screening laboratory licensed or certified by the substance abuse and mental health service administration.

1. The student shall provide a urine specimen for the drug screen. The specimen itself shall be collected at a facility approved by the college/clinical affiliates, under that facility's procedures and control.
2. Drug Screening and Gas Chromatography/Mass Spectrometry (GC/MS) confirmation for ten categories will be required with cut-off limits as established in the aforementioned DHHS guidelines.
3. If a student has a positive drug screen, he/she will not, at the discretion of the clinical facility, be allowed to participate in the clinical component of the course at the assigned clinical facility.
4. If the initial drug test indicates a positive, the student has the opportunity to either refute the positive, or at the student's expense, have additional testing performed by the party selected by Columbia State Community College to perform the initial test. If the student is unable to refute/explain the positive drug test, or the subsequent test is positive test, clinical facilities are provided with redacted drug screen results and, at the clinical facilities' discretion, the student may be denied clinical site access.
5. Students are subject to the drug testing policy and rules of the facility providing the clinical education experience, which may require the student to submit to additional drug testing, in compliance with the facility's standard policies and requirements.

Criminal Background Checks and Drug Screen for Clinical Experience

I hereby authorize the Columbia State Community College, or any qualified agent or clinical facility to receive the following in connection with my clinical educational experience: criminal background information including copies of my past and present law enforcement records. This criminal background investigation is being conducted for the purpose of assisting the clinical facility in evaluating my suitability for a clinical experience. The release of information pertaining to this criminal background investigation is expressly authorized.

I understand that information contained in the criminal background report may result in my being denied a clinical practicum. If negative information is contained in my report, I understand that I will be notified by the Columbia State Community College and understand that I have the right to contest the accuracy of the report.

I hereby give the Columbia State Community College permission to obtain and release the criminal background report to facilities to which I may be assigned for clinical experience prior to beginning the assignment. I hereby release the Columbia State Community College, any of its member colleges or universities, or any of the clinical facilities, from any liability or damage in providing same or acting on, such information. I hereby agree that a copy of this authorization may be accepted with the same authority as the original.

I hereby further release the Columbia State Community College, its member colleges and universities, their agents and employees from any and all claims, including but not limited to, claims of defamation, invasion of privacy, negligence or any other damages of or resulting from or pertaining to the collection of this information. **I understand that I am responsible for all costs associated with this process and these costs are non-refundable.**

My signature below certifies that I do not have a criminal history that should disqualify me for consideration for a clinical practicum.

Signature

Date

Date of Birth

Student ID #

Please print or type all names you have used in the past.

Criminal Background Checks and Drug Screen for Clinical Experience

My signature below indicates that I have read the Drug Testing and Criminal Background Screening policy of Medical Laboratory Technician program of the Columbia State Community College, and have been provided with a copy of the same. I understand that the results of the criminal background screening and drug testing results are to be used for the purposes of determining my eligibility for a clinical educational experience in my field. By this form I provide my irrevocable consent for the results of the drug screening and criminal background checks to be released to the Columbia State Community College who in turn may share said information with the clinical agency with whom I am being assigned for a clinical experience.

Signature

Date

MLT Clinical Observation Form (Optional)

TO The Clinical Laboratory Professional:

The intent of this observation experience is to familiarize this student with a typical work day and activities performed in the clinical laboratory before he/she begins a program of study in Medical Laboratory Technology.

These students should at no time perform tests, handle specimens, or have physical contact with patients. We ask that they only be allowed to observe in your facility.

The student can take a tour of your facility and spend 1-2 hours observing, or the student can spend an entire shift at your facility.

Thank you for your assistance, cooperation, and time. Please feel free to contact me with questions.

Lisa Harmon MS, MLS (ASCP) SBB^{CM}
Director - Medical Laboratory Technology Program
Columbia State Community College
931-540-2706

Clinical Guidelines for the Student:

- No patient contact is allowed.
- Observers are to be attentive during the observation and are encouraged to ask questions.
- **PATIENT CONFIDENTIALITY IS REQUIRED. Candidates MUST sign the following statement before beginning the observation:**

“I, _____, understand anything I may see or hear during my observation is to be kept strictly confidential. This is intended to protect the privacy of the doctors, staff, and patients of the hospital. Any statements made by me in violation of the privacy of the above, are a violation of the Health Insurance Portability and Accountability Act (HIPAA) of 1996 and may result in prosecution by the Federal Government.”

Remember, applicants are guests in the department. The first obligation of the staff is the care of patients!

Applicant's Name: _____ Observation Date: _____

Observation Location: _____

Clinical Instructor's Signature: _____ Date: _____

Program Policies and Procedures

Columbia State Community College MLT Program Grading Scale

The following grading scale is consistently used in each of the Columbia State Community College MLT technical courses.

A	93 - 100%
B	84 - 92
C	75 - 83
<hr/>	
Below 75	is Failing
D	65 - 74
F	64 & below

Columbia State Community College MLT Program Retention Policy

Retention in the Columbia State Community College MLT Program requires that the MLT student earn a grade of "C" or better in all MLT and natural science courses (Anatomy, Physiology I and II & Microbiology). The student must achieve a "C" average in the MLT curriculum in order to graduate.

If a student makes below a "C" in an MLT or a required natural science course, the course must be repeated with a passing grade ("A", "B", or "C"). MLT courses are only offered once a year, so the student will have to wait to take courses until the pre-requisite course has been completed with a passing grade. All courses must be taken in sequence as specified by course pre-requisites unless permission is granted by the program director.

"C" Average = 2.0 on a 4pt. scale

MLT student grades will be reviewed by the MLT Program Director at the end of each semester.

Medical Laboratory Technology Program Withdrawal and Re-entry Policy

Student Withdrawal from Program

Students who choose to withdraw from the program must immediately notify the Columbia State Community College MLT Program Director. Any future admission of students who officially withdraw must be by re-application.

Student Continuation in Program

If a student does not successfully complete the MLT Introduction to the Clinical Laboratory course (with a grade of "C" or better), he/she cannot apply to the program and he/she must repeat the Introduction course to be considered to the program.

Students enrolled in the Columbia State Community College MLT Program who fail to register for a semester of MLT courses will automatically be dropped from the program.

Interruption in Program Sequence

Failure to successfully complete an MLT course, with a grade of "C" or better, will result in the student being unable to take the MLT courses during the following semester. The student may continue in the sequence when that pre-requisite course has been completed with a passing grade. The student would then have to apply for admission back into the program.

Student Readmission into Program Sequence

Students seeking readmission are responsible for scheduling a meeting with the Columbia State Community College MLT Program Director to discuss an educational plan for completion of MLT course requirements. This conference is required for eligibility to repeat any necessary course and re-enter the sequence.

In order to re-enter the sequence of MLT courses, students must submit a written request to the COLUMBIA STATE COMMUNITY COLLEGE MLT Program Director. Letters will be dated upon receipt and re-entry placement will be granted in the order requests are received according to space availability.

Re-entry is based on the availability of slots in both MLT theory courses and clinical practicum and is not guaranteed regardless of the circumstances for program withdrawal.

A student re-entering the course sequence must register for and complete previously unsuccessful course(s) during the next semester offered if space is available.

A student who is out of the curriculum sequence for clinical practicum will be placed on a waiting list. Current cohort students are giving priority for clinical practicum placements. Students re-entering the sequence are assigned clinical sites based on availability.

A student re-entering the course sequence must follow the curriculum and program guidelines for the current class. The student may complete general education courses required in the curriculum while waiting to repeat an MLT course.

Grounds for Dismissal

Upon specific recommendation of the Columbia State Community College MLT faculty, students will receive written notification of the reasons and procedures, to terminate his/her enrollment in the program. Such action will be initiated when the MLT faculty believe it inadvisable for that student to complete the program.

Conditions contributing to these decisions by the faculty may include:

1. Unsatisfactory academic performance levels ("D" or lower) in MLT core courses and required natural science courses. (Chemistry, Anatomy, Physiology & Microbiology).
2. Unsatisfactory clinical practicum performance ("D" or lower) in task evaluation and Professional skills evaluation.
3. Unethical or unprofessional conduct as described in this handbook

Program Curriculum

Upon completion of the Columbia State Community College MLT Program, the MLT student will earn a two-year Associate of Applied Sciences Degree. The following general MLT curriculum describes the course of study.

Course Rubric and Number recommended each semester	Course Title	Credit Hours	All courses will be available on-ground during the semesters indicated. Additional optional delivery methods indicated below:
First Year – Fall Semester			
ENGL 1010	Composition I	3	Online, Hybrid, or TNeCampus
BIOL 2010	Anatomy & Physiology I	4	Online or TNeCampus
MATH 1530	Elementary Statistics	3	Online, Hybrid, or TNeCampus
ADMN 1306	Medical Terminology	3	Online or TNeCampus
COLS 101	Columbia State College Success	1	
Total Credit hours		14	
First Year – Spring Semester			
BIOL 2020	Anatomy & Physiology II	4	Online or TNeCampus
HUM/FA	Approved Humanities/Fine Arts	3	Online, Hybrid, or TNeCampus
BIOL 2230	Microbiology	4	Online or TNeCampus
MLAB 1301	Intro to Medical Laboratory	3	
Total Credit hours		14	
First Year – Summer Semester			
MLAB 2402	Hematology	4	
MLAB 2403	Clinical Microbiology	4	
MLAB 2202	Urinalysis/Body Fluids	2	
MLAB 2201	Clinical Immunology	2	
Total Credit Hours		12	
Second Year – Fall Semester			
MLAB 2301	Blood Bank	3	
MLAB 1310	Practicum I	3	
MLAB 1320	Practicum II	3	
SPCH 1010	Fundamentals of Speech	3	Online, Hybrid, or TNeCampus
Total Credit hours		12	
Second Year – Spring Semester			
MLAB 2310	Practicum III	3	
MLAB 2420	Practicum IV	4	
MLAB 2130	Seminar I	1	
MLAB 2401	Clinical Chemistry	4	
PSYC 1030	General Psychology	3	Online or TNeCampus
Total Credit hours		15	

Note * - Students who are required to take learning support courses in Reading, Writing, and/or Math will follow an individualized academic plan which includes additional semester(s) prior to MLAB course enrollment

Columbia State Community College

Medical Laboratory Technology Course Descriptions

MLAB 1301 – Intro to Medical Laboratory (3)

Orientation to the duties of the Medical Laboratory Technician; medical terminology; ethics; use of the microscope; laboratory safety and universal precautions; laboratory glassware; quality control; basic laboratory math; preparation of chemical solutions; specimen collection by phlebotomy and capillary puncture.

MLAB 1310 - Practicum I (3)

This course is designed to give the student the opportunity to develop practical work-related skills and integrate classroom knowledge and theories. This course will provide students with an intensive field experience in a medical lab real or simulated environment. Students must complete a total of 135 contact hours in field to receive 3 hours credit for this course.

MLAB 1320 - Practicum II (3)

This course is designed to give the student the opportunity to develop practical work-related skills and integrate classroom knowledge and theories. This course will provide students with an intensive field experience in a medical lab real or simulated environment. Students must complete a total of 135 contact hours in field to receive 3 hours credit for this course.

MLAB 2130 – Seminar I (1)

The student will be given the opportunity to develop a broader application of the clinical laboratory scientist's role as a health professional in a variety of learning experience, including seminars, lectures, practice quizzes, and discussions in the seven knowledge areas (hematology, blood bank, clinical chemistry, microbiology, laboratory operations, immunology, and urinalysis/body fluids). It is also a seminar course designed to give students experience in researching and present case studies with emphasis on correlation of laboratory results. Included in this course are review and practice examinations as well as a comprehensive battery of examinations encompassing seven knowledge areas to prepare student for certification examinations.

MLAB 2201 - Clinical Immunology (2)

Didactic instruction in immunology, human immunologic responses, and current methods of serology testing in the clinical immunology/serology section of an affiliated hospital laboratory. Additional practical experience with case studies and special procedures. Pre: Program Restriction-Enrollment limited to students admitted to the Program.

MLAB 2202 – Urinalysis /Body Fluids (2)

This course will present physical, chemical, and microscopic examination of urine specimens and related tests on other body fluids such as semen, gastric contents, duodenal contents, as well as pregnancy tests. A general review of the anatomy and physiology of the kidney is included. Program Hours: 1hour lecture and 2 hours lab per week

MLAB 2301 – Blood Bank (3)

The theories of blood group antigens, antibodies, ABO grouping, RH typing, cross matching, antibody screening, and identification techniques are included as well as special procedures. Donor history and physical record keeping, and special emphasis on quality control are presented. Prerequisites: Program Restriction-Enrollment limited to students admitted to the Program Hours: Thirty lecture and 30 lab hours per semester.

MLAB 2310 – Practicum III (3)

This course is designed to give the student the opportunity to develop practical work - related skills and integrate classroom knowledge and theories. This course will provide students with an intensive field

experience in a medical lab real or simulated environment. Students must complete a total of 135 contact hours in field to receive 3 hours credit for this course.

MLAB 2401 – Clinical Chemistry (4)

Basic instruction in manual and automated clinical chemistry techniques: tests for glucose, urea, creatinine, uric acid, proteins, bilirubin, enzymes, and electrolytes are included. Colorimetric and photometric techniques used in examining normal and abnormal clinical specimens are introduced along with special procedures such as RIA and electrophoresis. Prerequisites: Program Restriction-Enrollment limited to students admitted to the Program Hours: 3 hours lecture and 2 hours lab per week.

MLAB 2402 – Hematology (4)

The study of blood cells, disease, theory of coagulation, and diagnostic procedures relating to whole blood are considered. Instruction in blood collecting techniques, handling of clinical specimens, and basic patient care will be included. Prerequisites: MLT 1310 and Program Restriction-Enrollment limited to students admitted to the Program Hours: 3 hours lecture and 2 hours lab per week.

MLAB 2403 – Clinical Microbiology (4)

This course examines the study of microorganisms of medical importance as it relates to man and disease. The course includes discussions of proper collection, handling and examination of specimens, staining and culture techniques, identification methods, drug sensitivity testing, and quality control procedures. Program Hours: 3 hours lecture and 2 hours lab per week.

MLAB 2420 – Practicum IV (4)

This course requires students to apply critical thinking skills, problem solving and communication skills required in real or simulated environments. The students may be involved in a combination of clinical field placements, co-op assignments, and/or capstone experiences. Students must complete a total of 180 contact hours to receive 4 hours credit for this course.

Essential Skills and Knowledge Policy

It is imperative that the MLT student master both “Technical Standards” and “Academic Knowledge” as it pertains to Medical Laboratory work.

Part of this policy is mandated by NAACLS; the National Accrediting Agency for Clinical Laboratory Science in the “Essential Functions Acknowledgment Statement.”

The Academic Knowledge is mandated as an obligation to our future patients and our future employers.

In response Columbia State MLT will set forth the following guidelines to successfully graduate from the program:

1. You must successfully pass the lecture part of each individual course in the MLT program.
2. You must successfully pass the laboratory part of each individual course in the MLT program.
3. You must successfully pass a checklist of essential skills that pertain specifically to the mandates set forth by the “Essential Functions Acknowledgement Statement.” These pertain specifically to Visual Observations, Motor Function, and Communication Skills.
4. You must successfully pass the “Professional Skills Checklist” both in the Classroom setting as well as the clinical setting.
5. You must successfully pass the “Clinical Practicum” Technically, Academically, as well as professionally.

Failure to perform to the required standards above in any area can result in dismissal from the program.

I understand this and will abide the policy as prescribed by the Columbia State MLT program.

Name: _____

Signature: _____

Date: _____

Proficiency Testing

Proficiency testing is an acceptable form of acquiring course credit that may be part of the general education program requirements.

Program Expenses

See college catalog for specific tuition and fee costs for the program. There is also a general MLT Program cost sheet located on the MLT website.

In addition to tuition, students will also be responsible for costs of:

1. Required texts
2. Fees (program, criminal background checks, drug screening, and insurance.
3. Transportation costs for travel to MLT courses and clinical practicum sites.
4. Uniforms and shoes required for clinical practicum.
5. Required physical examination, immunizations, lab tests, TB skin tests, and possible chest x-ray, and health insurance and/or accident illness coverage.
6. Application fee for national certification examination. ASCP Board of Registry is \$225.00(2024) & AMT Certification Exam is \$220.00(2024).

Columbia State Community College MLT Program Attendance Policies

The following are general attendance policies for the Columbia State Community College MLT Program intended to serve as guidelines for instructors and students.

Individual instructors will make decisions about application of these policies concerning acceptable excuses for absences, late work acceptance, penalties for late work, etc.

Instructors may also initiate additional attendance policies for their individual courses concurrent with the needs of each course. These policies will be clearly stated in course syllabi. Students shall abide by these policies also.

Lecture Attendance

1. College policies state that students are expected to attend all scheduled class periods for the courses in which they are enrolled.
2. MLT Instructors will take roll in each class noting absence and tardiness. These records will be maintained in the student's permanent record as required by NAACLS. These records will be used for reference if academic problems arise.
3. When assigning final semester grades, instructors may use attendance as a tool in determining grades.
4. Instructors will identify how class attendance may affect final grades.
5. Students are responsible for all lecture material and it is the student's responsibility to obtain lecture notes and handouts from classmates. Lectures will not be repeated.

6. Lectures will contain material not presented in the text and will give detailed explanation of text materials. For full comprehension of the theory and concepts presented in the courses, attendance is critical.
7. Students who claim illness as an excuse for excessive absence can be required to present a physician's statement.
8. Class attendance may reflect the student's attitude toward academic and professional responsibilities. If an instructor or the program director is contacted by a prospective employer for a reference or recommendation, attendance may be considered and discussed.
9. Pregnant students must submit a health authorization to participate in the Columbia State Community College MLT Program by her obstetrician. This record will be kept in the student file. If a pregnant student delivers during the semester and wishes to return quickly to MLT classes, she must have a doctor's written authorization to do so. The student could elect to withdraw with a "W" and re-enter the program when they return.

MLT Absence/Tardy Checklist

Initial the following:

- _____ I understand that a maximum of 2 absences in a regular course (16 week) results in a grade being lowered and/or potential dismissal from the program
- _____ I understand that 1 absence in a short course (less than 16 week) can result in the grade being lowered and/or potential dismissal from the program
- _____ I understand that with each successive absence my grade gets lowered and dismissal from the program may be imminent
- _____ I understand that being tardy twice in a regular class may lower my grade as well as result in dismissal from the program
- _____ I understand that 1 tardy in a short course may result in my grade being lowered as well as result in dismissal from the program
- _____ I understand that any missed test due to an absence or tardy may be made up at the discretion of the instructor one time. Any second missed test may not be made up and results in a "0" for that test.

I have read the above rules and understand the absence and tardy policy.

Print Name _____

Sign Name _____

Date: _____

Laboratory Activities

1. All general attendance policies apply to lecture periods that include any lab activity.
2. For a lab report to be accepted for a grade, the student must have attended the appropriate class period including the lab activity.
3. Due to the nature of the MLT Program and its course, missed lab activities cannot be made up.
4. Laboratory activities are an important part of the MLT Program. Students will learn skills required for their clinical practicum as well as for professional employment. Every possible effort should be made to participate in all lab activities.
5. The individual instructors will make the decisions as to whether to accept late lab reports, assignments, etc., and the extent of penalties for late work.
6. Students must do their own work in answering lab questions in each exercise.

Quizzes

1. Quizzes may be given throughout the semester over lecture material or laboratory activities to encourage students to keep up with coursework and to monitor student progress.
2. Quizzes may be announced or unannounced, as determined by the instructor.
3. Missed quizzes cannot be made up.

Exams (Lecture, lab, practical)

1. Attendance for major exams is mandatory.
2. Make up exams will be given only at the discretion of the instructor.
3. Make up exams may/may not be the same as the regularly scheduled exam.
4. Practical exams cannot be made up.
5. Exams are to be taken when scheduled in class, not before or after class meets. Missing the exam at the designated time constitutes a make-up exam.

Inclement Weather Policy

In case of inclement weather, please check the Columbia State website, your email or call the Columbia State closing line at 931-540-2515. Follow instructions given for late openings and how this may affect class times. Students are individually responsible for decisions regarding travel safety. Students may also opt-in for text and/or phone notification related to campus closure and/or emergencies.

Student Health Status Policy

Columbia State Community College MLT students with health conditions and/or chronic disease, pregnancy, disability are advised to contact the Disability Resource Center to consult regarding possible requests for accommodations.

Students with a communicable disease or temporary illness/injury should inform the Program Director immediately.

Each student's situation will be evaluated individually to determine ability to successfully continue in the program. Reasonable accommodations will be made Columbia State Community College to assist students with documented disabilities.

Health status of students may affect clinical practicum. Students recovering from communicable diseases may be required to submit a release from a medical provider as a condition of returning to clinical practicum and/or MLT classes.

In the event of student contracting a communicable disease (ex.: chicken pox, rubella, etc.), the Program Director and clinical site must be informed as soon as possible, and the student should cooperate with any necessary infection control procedures or investigations conducted by the clinical site. Students may be prohibited from attending in-person until deemed no longer contagious and released by a provider.

After admission into the program, each student must submit a Routine Physical Examination form completed by a physician and show proof of immunizations and tests required by clinical facilities.

The first two of a series of three Hepatitis B Virus immunizations must be completed by the beginning of Summer Semester of the first year in the program or a waiver form may be signed.

A two-step Mantoux TB skin test must be completed in the summer semester of the program and/or within six months of beginning clinical practicum. If the TB skin test results are positive, the student will be required to have a chest x-ray or QuantiFERON Gold blood test, cultures, and possibly treatment before being allowed to enter the clinical sites.

Many clinical sites require copies of physical exams, immunization records, x-ray results, and test results per infection control policies. **Written permission will be required from the student to release this information, following HIPAA guidelines.**

Physical examination forms, immunization and test forms, Hepatitis B virus immunization waiver form, and Release of Medical Information forms follow.

AMERICANS WITH DISABILITIES ACT:

In compliance with the Americans with Disabilities Act, students are encouraged to register with the counseling/disability services office for possible assistance with accommodations. It is the student's responsibility to voluntarily and confidentially provide appropriate documentation regarding the nature and extent of a disability. Students requesting special accommodation are (strongly) encouraged to contact the counseling/disability services office at the beginning of the semester.

Student Health and Safety Policies

The Safety of each student is valued in the Columbia State Community College MLT Program. Safety regulations must be upheld while in the classroom/lab.

See <https://www.columbiastate.edu/safety> for additional information.

No eating or drinking is allowed in the classroom, either lecture or lab, at any time. The classroom is considered a biohazardous area. Even though the tables are disinfected before and after each class, the type of specimens tested and used in our classroom have the potential of causing disease. No water or beverage bottles will be allowed in the MLT classroom or laboratory.

During labs, students will wear the assigned personal protective equipment (PPE) provided by Columbia State Community College per OSHA guidelines. This includes a barrier proof lab coat that is buttoned, non-latex gloves, and a protective face shield when working with blood or potential aerosols in the lab.

The instructor will enforce these guidelines in each class. The PPE will be provided by Columbia State Community College.

Biohazardous containers are used in every lab. Special containers (large puncture proof Sharp's containers) are plentiful for broken glass and needles from venipunctures. Large floor biohazardous containers are available in the classroom to put biohazardous waste in. These will be properly sealed and transported by a licensed Biohazardous waste company. A safety shower is located in the adjacent classroom and eyewash stations are available in the MLT classroom.

Students will be thoroughly instructed in handling biohazardous specimens and cleaning of biohazardous and chemical spills in every MLT class.

Injuries in the classroom/lab

Any student who is injured in the classroom or lab must report the injury to the instructor. The instructor will offer first aid to the student, and counsel the student regarding options for further medical attention. An Incident Report will be filled out concerning the accident giving the details. Digital completion of the form automatically notifies the campus safety/security officer and the dean for health sciences and is permanently accessible by the originator.

If the incident is a medical emergency, the instructor will immediately call 911 and notify the Columbia State Community College MLT Program Director or, in the absence of the MLT Program Director, or in the absence of the MLT Program Director, a Columbia State Community College staff member, and college security. The expense of the emergency treatment is the student's responsibility, as well as the transport by ambulance to the Emergency Room, if necessary.

Health Insurance Requirement

Each student will be required to show proof of current healthcare coverage before he/she attends the clinical facilities. Students who do not have health care coverage may purchase short-termed policies to cover the time that the student is enrolled. Local insurance companies have such policies. The health coverage requirement has been listed in the Affiliation Agreement, a legal contractual agreement, between the clinical facility and Columbia State Community College. An insurance card is preferred, but a cover letter from the insurance company indicating the policy number, dates of coverage, and type of coverage are also acceptable.

If a student is injured at the clinical site, ***the incident must be immediately reported to the supervisor***, first aid cared will be provided, documentation must be filed, and program director notified as soon as possible. The student will be sent to the Emergency Room and/or to the Infection Control Officer for counseling and advisement per hospital regulations. If a student receives a needle stick injury, testing will be performed on the patient from whom the needle stick occurred as well as the student. Immediate and follow up testing is important, and the student is advised to have all intervals of serology testing performed. The cost of all treatment is the responsibility of the injured student.

Columbia State Community College Medical Laboratory Technology Program

The Mantoux Skin TB Test is required for participation in the Columbia State Community College MLT Program. The TB test needs to be done within (3) months of students beginning their first clinical practicum. Clinical practicum usually begin the middle of August.

Any Mantoux Skin TB Test completed after May 1st will be accepted for the year of the Columbia State Community College MLT Program.

Name of Student _____

The student received the Mantoux TB skin test. (A two-step test is required unless there is documentation of an earlier repeated one step Mantoux.)

First Date Given: _____ Second Date Given: _____

Dates of Earlier Two - Step Mantoux: _____

MANTOUX TB TEST RESULTS

Physicians or Nurse's Signature/ Date

The student received a chest x-ray as a result of a positive Mantoux TB skin test

CHEST X-RAY RESULTS

Physician's or Nurse's Signature Date

Form for those who already have had a TB skin test and work in the medical field.

Course Texts

Required texts for Columbia State Community College MLT courses are made available to students at the college bookstore. Students may purchase texts at the college bookstore or on-line sources. The Program Director gives specific titles and numbers of books to be ordered to the bookstore based on the program enrollment for that campus. The MLT Program Director will provide a textbook list for each student prior to each semester.

The following is a list of all the MLT courses and books required for the MLT Program:

Spring

Introduction to Clinical Laboratory MLAB 1301
Linne & Ringsrud's Clinical Laboratory Science by Mary Louise Turgeon, EdD, MLS (ASCP)CM,
9th Edition, 2022. ISBN: 9780323829342

Summer

Clinical Microbiology MLAB 2403
Delost, Maria Dannelsa. *Introduction to Diagnostic Microbiology for the
Laboratory Sciences, Second Edition*, 2022. Jones and Bartlett Learning.
ISBN 9781284199734.

Hematology MLAB 2402
Keohane, Elaine, Otto, Catherine, and Jeanine Walenga: *Rodak's Hematology Clinical Principles
and Applications*. 6th Edition, 2019. Saunders, ISBN 9780323530453.

Immunology MLAB 2201
Stevens, Christine and Linda Miller. *Clinical Immunology and Serology*.
5th Edition, 2021, F.A. Davis Publisher. 9780803694408.

Urinalysis MLAB 2202
Strasinger, Susan King and Marjorie Di Lorenzo: *Urinalysis and Body Analysis Fluid*,
7th Edition, 2020, F.A. Davis, Publisher. ISBN 9780803675827

Fall

Blood Bank MLAB 2301
Howard, Paula R.: *Basic and Applied Concepts of Blood Bank and Transfusion Practices*,
2021, 5rd Edition, Mosby Publishers, St. Louis, Missouri. ISBN 9780323697392.

Spring

Clinical Chemistry MLAB 2401
Bishop, Michael, Edward Fody, Carleen Siclen, and James Mistler: *Clinical Chemistry –
Principles, Techniques, and Correlations*, 2023, 9th Edition Publisher: Jones and Bartlett
Learning, ISBN 9781284238860

Library

The John W. Finney Memorial Library provides access to the books, journals, newspapers, electronic resources, and other materials that support the curriculum and fulfill the information and research needs of the students, faculty, and staff of the College. The library provides access to a range of information resources appropriate to the curriculum and other aspects of the College's mission, offers appropriate reference and instructional services related to the library's materials and networks, and shares information resources reciprocally with other libraries and institutions in the area, state, region, and nation.

The 30,207 square-foot Columbia facility, opened in 1972, is named for the late John Wesley Finney, a Columbia resident and member of the State Board of Education, whose leadership was instrumental in establishing a community college for this area. The library just completed a 6.5 million dollars renovation and reopened in late 2021. The mission of recent renovation was to bring resources into the digital age with new sets of computers and technology equipped conference rooms for students and educators.

The library provides seating for 200 students on two floors. In addition to a microform reading room and a special collections room, the first floor of the library has a reference collection, a current periodical reading area, an audiovisual lab, and a computer lab for accessing electronic information. The second floor has a conference room, a library-instruction room and computer lab, and stacks for the library's circulating book collection.

The library print collection has some 70,000 volumes, with strong holdings in history, literature, the social sciences, nursing, and allied health technology. Over 300 periodical titles are received including scholarly journals, general interest magazines, and local, state, and national newspapers. The library also subscribes to over 40 research databases. This includes a Health Care data base accessible to the Medical Laboratory students.

The library offers individualized research assistance, as well as instructional classes and orientations. Through the interlibrary loan service, books and other materials may be obtained from other libraries. During fall and spring semesters, library hours are 8:00 a.m. to 9:00 p.m., Monday through Thursday; 8:00 a.m. to 4:00 p.m., on Friday. Check postings for Saturday hours, summer hours, and holiday closings.

In addition to the main library on the Columbia campus, libraries are also maintained at Clifton, Lawrence County, Lewisburg, and Williamson County. These locations have basic reference collections, a browsing collection of journals and newspapers, and computer access to electronic databases. Hours at these locations may vary; check with extended campuses individually for hours of operation.

Specific Periodicals online students must access while in the MLT program:

College of American Pathologists- www.cap.org

American Society of Clinical Pathologists- www.ascp.org

Medical Laboratory Observer- www.mlo-online.com

American Society for Clinical Laboratory Science- www.ascls.org

American Medical Technologists- www.americanmedtech.org

Rules and Regulations of Columbia State Community College Facility

Parking

Columbia State has implemented institutional Traffic and Parking Policies which govern traffic and parking on all of the campuses. The purpose of these policies is to facilitate the orderly and efficient flow of traffic, to provide a safe atmosphere for both pedestrians and motor vehicle operators, and to provide order with regard to parking within limited space. Institutional policies are published annually through signage, the Student Handbook, and on the Columbia State website.

Cellular Phone Usage

Please do not use cell phones in class. Please do not display cell phones in class. Please do not text or use your cell phone in any manner in class.

Copies

Student photocopying is available in several Columbia State Community College buildings.

Emergency

Emergency procedures are posted in all facilities at all Columbia State locations. During emergency situations, students are expected to stay calm, listen for instructions, and follow the designated procedures. For a complete listing of policies related to this area, please refer to the website at <http://www.columbiastate.edu//emergency> or contact the Student Services office (931) 540-2570.

Computer Access

The Information Technology office at Columbia State supports computing and information technology resources across all campuses. Information Technology resources include hardware, software, user accounts, electronic mail, local and wide area networks, connectivity among all campus sites, and access to the Internet. Information Technology (IT) also provides a help desk service during normal class hours from 7:45 a.m. until 4:15 p.m., Monday through Friday. The Helpdesk is located in the basement of the Finney Memorial Library, on the Columbia campus. The IT office administrates the functions of the general-purpose computing labs, as well as the Lab Monitor program. For more information on the Helpdesk, the general-purpose computer labs, or the Lab Monitor program, call the Helpdesk at (931) 540- 2650, or email helpdesk@columbiastate.edu. You may also find information on IT and locations of the computer labs at www.columbiastate.edu

Students have access to printers in numerous locations at each Columbia State campus. Students are encouraged to be responsible in printing; print in black & white and/or front/back when possible; and attempt to print handouts in multiple-slide per page formats.

Columbia State Community College MLT Area Access

Entry of Columbia State Community College MLT students to the Lab/Classroom will be limited to the time immediately preceding scheduled class periods.

Please be respectful to other Columbia State Community programs and staff by controlling noise within the building, particularly in the hallway during breaks.

Entry to the MLT Prep/Storage & Hazard Rooms is prohibited for students unless an instructor is present. The Prep/Storage Room also serves as an office/work area for part - time faculty. The Hazard Room contains flammable chemicals and bio-hazardous waste.

The doors to the MLT Lab/Classroom, Prep/Storage Room, and Hazard Room will be locked when not in use.

Student access to the Program Director's office may occur only when the Program Director is present. Office hours will be posted.

MLT Lab/Classroom Regulations

When in any of the MLT rooms, general safety and universal precautions must be followed.

Eating and drinking are strictly prohibited in the MLT Lab/Classroom because of the nature of the biological hazards present and the need to realize and practice the professional habits and precautions required in the clinical laboratories of hospitals. Other COLUMBIA STATE COMMUNITY COLLEGE programs may have different regulations concerning food and beverages.

Venipuncture by Columbia State Community College MLT Students

Venipunctures may be practiced using artificial arms and/or volunteer classmates in the classroom/campus lab under supervision. Technique will be practiced and perfected. Students will practice venipunctures under the supervision of a clinical site instructor when at clinicals (See liability release form, pg. 11).

Confidentiality Agreement Medical Laboratory Technology Program

During the course of the clinical practicum or laboratory activities in Medical Laboratory Technology courses, any information obtained through working with laboratory tests and/or activities, is by law, confidential. Any information obtained during the clinical practicum or MLT course laboratory activities which pertains to patients, physicians, employees, hospital matters, or fellow MLT students is also considered confidential per HIPAA regulations. Any disclosures of such information to unauthorized individuals will result in immediate dismissal from the MLT program.

Printed Name _____

Student Signature _____

Date _____

Training for Safety & Blood Borne Pathogen Standards

Columbia State Community College MLT students receive training concerning OSHA's Blood Borne Standards and basic laboratory safety in each of their MLT courses.

Clinical sites training students should also educate students about their specific protective practices and procedures.

The DVD, "OSHA's Blood Borne Pathogen Standard", may be used to provided training for Columbia State Community College MLT students followed by an opportunity to ask the instructor questions. Students sign a verification which is placed student's files and available to clinical sites by request.

Media Lab CE courses may be assigned to cover these same topics. These courses cover a wide range of safety topics that the student must complete as part of their safety training. Topics that may be assigned but not limit to are:

- OSHA Bloodborne Pathogens
- HIPAA Privacy and Security Rules
- Medicare Compliance for Clinical Laboratories
- OSHA Electrical Safety
- OSHA Hazard Communication and Chemical Hygiene
- Ethics and Code of Conduct in Healthcare.

Students are required to review and sign "Laboratory Safety Procedures." Originals are kept in student files at Columbia State Community College.

HIPAA Training and Compliancy

All Columbia State Community College MLT students will receive HIPAA training in the Introduction to the Clinical Laboratory class.

Columbia State Community College Medical Laboratory Technology Program

Bloodborne Pathogen Standards Training

As a student of the Columbia State Community College MLT Program, I verify that I have watched the DVD, "OSHA Bloodborne Pathogens Standard", and or received instruction / training using Media Lab CE Courses on precautions needed to be taken for protection of myself from possible exposure to bloodborne pathogens in MLT coursework and clinical practicum, and had the opportunity to ask the instructor questions about this topic.

Student Signature _____

Date _____

This statement may be made available to assigned clinical sites to verify that the student has received Bloodborne Pathogen Standards training before entering the Clinical Site

LABORATORY SAFETY PROCEDURES*

Adherence to laboratory safety procedures not only minimizes the risk of infections in the laboratory, it is also the students' training for minimizing the transmission of nosocomial infections in the future work environments. These procedures should be read to the students at the beginning of each semester and also posted in the laboratory. A student acknowledgement form is on the next page. Both pages may be copied for distribution. Student acknowledgement forms should be collected and saved.

1. Upon entering the laboratory, locate exits, fire extinguisher, fire blanket, chemical shower, eyewash station, first aid kit, broken glass containers, and cleanup materials for spills.
2. Eating, drinking, smoking, storing food, and applying cosmetics are not permitted in the laboratory.
3. Students who are pregnant, taking immunosuppressive drugs, or who have any other medical condition (e.g., diabetes, immunological defect) that might necessitate special precautions in the laboratory must inform the instructor immediately.
4. Long hair, loose clothing, and dangling jewelry should be restrained.
5. Safety glasses should be used in all experiments in which solutions or chemicals are heated over a Bunsen burner. Heat sources should never be left unattended.
6. Work surfaces must be decontaminated using a commercially prepared disinfectant or 10% sodium hypochlorite (household bleach) solution at the beginning and end of every laboratory period. Hot soapy water or disinfectant is recommended for cleanup after laboratories involving dissection of preserved material.
7. To help avoid spills, liquids should be kept away from the edge of lab benches. Any spill of viable material must be decontaminated using a commercially prepared disinfectant or 10% bleach solution.
8. Properly label glassware and slides.
9. Mechanical pipetting devices should be used; mouth pipetting is prohibited.
10. Glassware and plastic ware contaminated by blood and other body fluids must be placed in a disposable autoclave bag for autoclaving or placed directly into 10% bleach solution before reuse or disposal. Disposable materials such as gloves, mouthpieces, swabs, and toothpicks that come into contact with body fluids should be placed in a disposable autoclave bag for autoclaving before disposal.
11. Scientific equipment that has come into contact with live material or body fluids should be cleaned and disinfected.
12. Disposable gloves must be worn for touching blood and other body fluids, mucous membranes, or nonintact skin, and for handling items or surfaces soiled with blood or other body fluids. Gloves must be changed between procedures. Hands should be washed immediately after gloves have been removed. (Note: open cuts and scrapes should be covered by a sterile bandage before donning gloves.)

13. Disposable gloves and safety glasses are recommended for dissection of preserved materials and live animals.
14. To prevent contamination by needle stick injuries, use only disposable needles and lancets. Needles and lancets should not be bent, replaced in sheaths, or removed from syringes following use. The needle or lancet should be placed promptly in a freshly prepared 10% bleach solution, or placed in a puncture-resistant container and decontaminated, preferably by autoclaving.
15. Report all spills or accidents, no matter how minor, to the instructor.
16. In areas in which the need for resuscitation is predictable, mouthpieces, resuscitation bags, or other ventilation devices with one-way valves should be available.
17. Never work alone in the laboratory.
18. Children are not permitted in the laboratory. Adult guests are allowed only with the permission of the instructor.
19. Wash hands and remove protective clothing before leaving the laboratory.

*Adapted from:

Biosafety in Microbiological and Biomedical Laboratories 5th Edition Revised December 2009 (most current) <https://www.cdc.gov/biosafety/publications/bmbl5/> (2009)

Bloodborne Pathogens Standard

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=10051

Laboratory Safety Guidance <https://www.osha.gov/Publications/laboratory/OSHA3404laboratory-safety-guidance.pdf> (2011)

Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories

<http://www.cdc.gov/mmwr/pdf/other/su6101.pdf> (1/6/2012)

Laboratory Safety Acknowledgement Sheet

I hereby certify that I have read the safety recommendations provided for the laboratory and have located all of the safety equipment listed in paragraph 1 of these procedures.

Student's Name _____

Course and Instructor _____

Date _____

Instructor's Name _____

Columbia State Community College MLT Needle Stick/Splash Exposure Policy/Procedure

In the event of a splash of blood or potentially infectious material to mucous membranes, needle stick or injury with contaminated needles or sharps, the exposed area should immediately be washed with warm water and disinfectant soap.

If the exposed area is in the mouth, rinse your mouth with water or mouthwash.

If the exposure is in the eyes, flush with warm water (or normal saline, if available). Irrigate the area completely with water. An eyewash station is in the Columbia State Community College MLT Lab/Classroom, as well as an eyewash installed in one of the classroom sinks. A safety shower is available for chemical spills on clothing and skin.

Next, immediately report the incident to the instructor.

The instructor will complete an incident/exposure report form with information regarding how, where, and when the incident occurred. If applicable, the source of the infectious material should be noted.

The institutional incident form can be accessed here: [Incident Form](#).

A copy of the form should be given to the student. Digital completion of the form automatically notifies the campus safety/security officer and the dean for health sciences and is permanently accessible by the originator.

The MLT Program Director must be notified immediately of an exposure incident and will counsel the student from an advisory standpoint.

The student will be counseled and advised to seek health care from a provider of their own choice for follow up care and testing. Expense of testing and any resulting medical care will be the responsibility of the exposed student.

**Columbia State Community College
Medical Laboratory Technology Program
Incident/Exposure Form**

Student's Name _____

Student ID # _____

Address _____

Phone _____

Home campus _____

Location of exposure _____

Date of exposure _____

Explain how the incident occurred _____

What immediate care was given to the student? _____

Signature of Student _____ Date _____

Signature of Instructor _____ Date _____

The student was counseled about recommended testing and follow up by the MLT Program Director.

Signature of MLT Program Director _____ Date _____

Personal Protective Garments & Equipment for Universal Precautions

To prevent exposure to bloodborne pathogens and other infectious agents, personal protective garments, equipment, etc. will be worn and used by all Columbia State Community College MLT students and staff during all laboratory activities with possible exposure to bloodborne pathogens, body fluids, and infectious agents.

1. Disposable lab coats will be assigned to each student and staff member to be worn over clothing. Names should be written in or on the disposable lab coats.
 - Disposable lab coats should be reused and stored in the designated location in the Columbia State Community College MLT Lab/Classroom.
 - If a spill, splatter, etc. contaminates the lab coat, the lab coat should be discarded as biohazard waste and a new one obtained.
2. Gloves will be worn during all lab procedures and phlebotomy.
 - Used gloves should be disposed of as biohazard waste.
 -
 - Any cuts, abrasions, etc. should also be covered by adhesive bandages.
3. Facial splash shields will be issued to protect the mucous membranes of the eyes, nose, and mouth.
 - Any spray on the splash shield should be decontaminated and cleaned.
 - Splash shields should be replaced with new shields when no longer suitable for protection or clear vision. Splash shields should be disposed of as biohazard waste.

Continued use of this equipment and these practices will protect the health and well-being of students and staff. Use of appropriate PPE also develops a consciousness of bloodborne pathogen practices to be used throughout a clinical laboratory career.

Biohazard Waste Disposal

Biohazard waste produced in the Columbia State Community College MLT class activities are to be handled in compliance with OSHA Blood Borne pathogen standards and disposed of as required by law.

Potentially infectious material should be disposed of into labeled biohazard bags, sealed, and then stored in the designated, labeled storage boxes in the secured area for biohazard waste.

Sharps are to be disposed of into sharps containers which are to be sealed when full and stored in the same designated area.

Biohazard waste is removed from the Columbia State Community College facility by a licensed hauler in accordance with law.

Name of Facility	Lab Director	Phone Number	Address	City	State	Zip Code
Associated Pathologists (d/b/a Pathgroup)	Dianna Nunn	931-562-9489	1010 Airpark Center Drive	Nashville	TN	37217
Accupath Diagnostic Labs (LabCorp)	Sally Ullery	615-377-7124	201 Summitt Drive, Suite 100	Brentwood	TN	37027
Lewis Health Center (affiliated with Maury Regional)	Mona Steele	931-796-4901	717 West Main Street	Hohenwald	TN	38463
Lincoln Health System	Vicki Golden	931-438-7425	106 Medical Center Blvd	Fayetteville	TN	37334
Marshall Medical Center (affiliated with Maury Regional)	Jennifer Gidcomb	931-359-6241 x 3361	1080 N Ellington Parkway	Lewisburg	TN	37091
Maury Regional Health (Maury Regional Medical Center)	Van Hendrickson	931-380-4024	1224 Trotwood Avenue	Columbia	TN	38401
North Alabama Medical Center (d/b/a Eliza Coffee Memorial and Shoals Hospital)	Jason Hodges	256-629-1810	205 Marengo Street	Florence	AL	35630
Opus Pathology	Sarah Hayes-Lieder	931-490-1005	1602 Hatcher Lane	Columbia	TN	38401
Southern TN Regional Health Systems - Lawrenceburg	Jed J. Pontiff		1607 S Locust Avenue	Lawrenceburg	TN	38464
Southern TN Regional Health Systems - Pulaski	Julie Viruez	931-363-9490	1265 East College Street	Pulaski	TN	38478
Southern TN Regional Health Systems - Winchester/Sewanee	Blakely Jones	931-967-8181	185 Hospital Road	Winchester	TN	37398
State of TN Laboratory Services at the TN Department of Health	Stephanie Poindexter	615-262-6300	R.S. Glass 1st Floor North	Nashville	TN	37216
TriStar Centennial Medical Center	Penny Harrell	615-342-1979	2300 Patterson Street	Nashville	TN	37203
TriStar Horizon Medical Center	Sheri Sutton	615-362-2319	111 Highway 70E	Dickson	TN	37055
TriStar Summit Medical Center	Christi King	615-316-3865	5655 First Blvd	Hermitage	TN	37076
Wayne Medical Center (affiliated with Maury Regional)	Heather Gurley	931-722-5411 x 2032	103 J V Mangubat Drive	Waynesboro	TN	38485
Williamson Health	Patti Walton	615-435-5800	4321 Carothers Parkway	Franklin	TN	37064

Clinical Practicum

Columbia State Community College MLT students shall practice phlebotomy in their clinical rotations. The purpose of the clinical practicum is to provide the students with an opportunity to reinforce and apply classroom theory and activities with practical on-the-job experience.

Clinical practicums are usually completed during the fall and spring semester of the cohort and last 8 weeks of fall and 10 weeks in Spring Semesters of the program.

Clinical practicums are back-to-back covering topic areas taught earlier in the semester. Each practicum is a minimum 135 clinical hours except for the Chemistry Practicum which is 180 hours. Students will be present in the clinical sites for day shift training on Monday through Friday for per practicum. The Fall semester of clinical practicum consists of a minimum 270 clinical hours and the Spring semester consist of minimum of 315 hours. Individual affiliates may require students to attend a shift other than day shift to observe or participate in activities not available on day shift.

Students will attend a clinical practicum orientation session prior to the beginning of Clinical Practicum I.

While attending the clinical sites, students are expected to:

- Follow the Columbia State Community College MLT Program Dress Code.
- Follow Hospital Policies.
- Demonstrate professional conduct.
- Follow the ASCP/BOC Guidelines of Ethical Behavior.

Clinical Practicum Design

Each fall semester (MLT Clinical Practicum I & II) consists of a minimum 17 day Practicums totaling 270 hours for the entire semester. On Thursday afternoons, the students will report to the classroom at Columbia State for an additional course in the MLT curriculum. Each clinical Practicum day should consist of an 8.0-hour workday spent at the bench except for Thursday.

MLT Clinical Practicum I and II

Students will complete MLT Clinical Practicum I and II in the fall semester. MLT theory courses of Hematology, Coagulation, and Microbiology, must be successfully completed in the summer semester with a passing grade of "C" or better to fulfill the pre-requisite requirements for the clinical Practicum in the related departments.

Immediately following the theory courses, student will attend their assigned clinical sites for Practicums. (Monday - Friday). Each Practicum consists of a minimum of 270 clinical/clock hours for the entire semester.

MLT Clinical Practicum III and IV

Students will complete MLT Clinical Practicum III and IV in the spring semester. MLT theory courses of Clinical Chemistry and Blood Banking must be successfully completed in the first part of the semester with a passing grade of "C" or better (as well as MLT Serology and Clinical Microscopy in the previous semester) to fulfill the pre-requisite requirements for the clinical Practicum in the related departments.

In the spring semester (MLT Clinical Practicum III & IV) consists of a minimum 40 days Practicums totaling 315 hours for the entire semester. On Thursday afternoons, the students will report to the

classroom at Columbia State for an additional course in the MLT curriculum. Each clinical Practicum day should consist of an 8.0-hour workday spent at the bench except for Thursday.

The additional hours are allotted for additional learning experiences such as in the phlebotomy area. These occur each (Monday - Friday). Both practicums consist of a minimum 315 clinical/clock hours.

At the time when clinical assignments are made, more students may require clinical sites than can be accommodated by the sites already available. To provide clinical sites to students at the appropriate time in the curriculum, clinical affiliates may be added or additional Practicum periods may become available during the break following the originally scheduled semester.

Attendance/Absences

Due to the nature of the Columbia State Community College MLT Program, attendance for assigned days of the clinical Practicums is mandatory. Any assigned days of the clinical Practicum missed in whole or in part **Must Be Made Up**.

Students who are unable to report for clinical at the assigned time (for any reason) must call the clinical site as soon as possible. The student must also notify the MLT Program Director.

If a student knows, in advance that time will be missed, he/she should make advance arrangements with the clinical site for scheduled makeup time.

For any absence, a Student Absence Report form shall be completed by the clinical site supervisor/instructor. It will be the responsibility of the student to arrange with the clinical site supervisor/instructor a proposed makeup schedule for missed time.

A copy of the Student Absence Report form must be submitted to the COLUMBIA STATE COMMUNITY COLLEGE MLT Program Director upon absence and arrangement of a makeup schedule. The original Student Absence Report form must be submitted to the program director upon completion and documentation of makeup days.

Scheduling of makeup days is at the discretion of the clinical site supervisor/instructor.

It is the student's responsibility to complete the required number of hours for each Practicum. Failure to complete or make up required hours will result in assignment of an incomplete letter grade or "F" grade for the semester course.

Upon completion of all required days, the terminal evaluation may be completed and submitted. Course grades will be calculated and change of grade forms will be submitted.

Student Absence Report forms will be provided to the clinical site or may be copied from this manual.

General Clinical Practicum Objectives

Upon completion of the clinical Practicums through each of the departments of the laboratory, the student should be able to:

1. Successfully perform venipuncture using syringes, vacuum tube systems, butterfly needles (if used), and heel and finger capillary punctures.
2. Properly identify patients, patient specimens, and patient results.
3. Label, process, and prepare blood and other samples for further testing.

4. Maintain accurate records.
5. Follow prescribed procedures and techniques in urinalysis, serology, hematology, immunohematology, chemistry, coagulation, and microbiology to obtain timely and accurate results.
6. Operate instrumentation in each laboratory department and perform minor repairs under close supervision.
7. Monitor and apply established quality control procedures daily.
8. Demonstrate proper laboratory techniques.
9. Discuss the principle and clinical significance of laboratory test methods performed.
10. Comply with recommended safety precautions and bloodborne pathogen standard practices.
11. Develop qualities of professionalism required of a Medical Laboratory Technician pertaining to appearance, ethics, confidentiality, reliability, and interpersonal communications.
12. Organize tasks in a manner which allows for effective completion of workload.
13. Identify inconsistent test results and bring to review of supervisor.
14. Follow written and verbal instructions and accept constructive criticism maturely.
15. Complete answers to study questions assigned for each sub -Practicum.
16. Demonstrate respect for patients, instructors, and fellow students.
17. Adhere to clinical facility policies (which may include vaccinations policies and exemption request)

Columbia State Community College MLT Professional Dress Code for Clinical Practicum

While attending the clinical sites, the Columbia State Community College MLT students should present a professional appearance by following the general rules of good grooming and the program dress code specified in this Manual.

Students will be required to dress in hospital lab approved attire (scrubs) and wear their student identification name tag at all times. Personal protective attire (lab coats, gloves, etc.) should be worn as required by blood borne pathogen standards and hospital policy.

Service Work Performed by Columbia State Community College MLT Students

According to NAACLS Essentials & Guidelines, "students shall not take the responsibility or the place of qualified staff. However, after demonstrating proficiency, students, with qualified supervision, may be permitted to perform procedures. Service work by students in clinical setting outside of regular academic hours must be noncompulsory, paid, supervised on site, and subject to employee regulations." Clinical practicum done at a site of employment must be separate from employment hours. Documentation will be required to show that the standard has been met.

Professional Conduct

Students accepting admission into the Columbia State Community College MLT Program, commit themselves to the generally accepted ethics of the health care field and especially those of the clinical

laboratory professional. These are discussed through the program. Students will conduct themselves professionally following the ASCP Board of Certification Guidelines for Ethical Behavior. Unethical conduct by a student is cause for dismissal from the Columbia State Community College MLT Program.

Columbia State Community College MLT students will display professionalism by respecting the confidentiality of patients, fellow students, and clinical site staff. Confidential information learned in the classroom, laboratory, and clinical site must be kept in strictest confidence and not divulged to unauthorized persons.

Any and all occurrences of alleged misconduct or unethical behavior will be investigated by the Columbia State Community College MLT Program Director.

Columbia State Community College MLT students are expected to complete assigned work independently unless instructed differently. Sharing exams, assignments, papers, and involvement in cheating is considered to be unethical behavior.

ASCP & Board of Certification Guidelines for Ethical Behavior

Students of the Columbia State Community College MLT Program should abide by the following guidelines for ethical behavior set forth by the ASCP and Board of Certification Registry. All clinical laboratory professionals certified by the ASCP agree to uphold this pledge:

"Recognizing that my integrity and that of my profession must be pledged to the best possible care of patients based on the reliability of my work, I will:

- Treat my patients and colleagues with respect, care, and thoughtfulness.
- Perform my duties in an accurate, precise, timely, and responsible manner.
- Safeguard patient information as confidential, with the limits of the law.
- Prudently use laboratory resources.
- Advocate the delivery of quality laboratory services in a cost-effective manner.
- Work within the boundaries of laws and regulations and strive to disclose illegal or improper behavior to the appropriate authorities.
- 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.

I agree to abide by the guidelines for ethical behavior as stated above."

Signature _____ Date _____

Assignment of Clinical Sites

Students will submit a request in order of preference for two sites for clinical practicum. However, clinical site assignments will be made by the MLT Director and/or associated instructors. Every attempt will be made to place a student at one of their chosen sites. There is no guarantee that students will get a clinical site that they desire. Students entering this program must be flexible and willing to travel to available sites. Some students have stayed in the town of the clinical site during their clinical practicum during the week. This is an option. Students who are not willing to attend clinical sites that may require driving up to one hour or more should reconsider signing up for the Clinical Practicum course.

In the unlikely event that there are not enough clinical sites for the number of students in the program, a selection process will take place. Students will be selected for clinical sites by GPA in the event of a shortage of clinical sites. Students with the highest GPA will have first choice and so-forth. Students will be placed in clinical practicums as soon as possible. Students will be notified in writing as to their status.

Students who fall out of sequence with the MLT courses and re-enter the MLT Program will be assigned clinical sites by the Program Director after the current class of students have been placed first.

Policies and Procedures for Applied Experience

There is an affiliation agreement between Columbia State and each clinical facility. The clinical practicum has within it the expectations of the applied experiences that each MLT student should be expected to learn and experience. It should be noted that at any given time, all facilities will have something that the student will not be able to do or experience. Our goal is to give an overall general experience that leads to basic entry skills for an MLT. With this in mind, if the MLT Program Director and the clinical affiliate agree that there is a lack of necessary skills at a particular clinical site, in a particular discipline, that the student can be moved to another facility to acquire those skills.

MLT Entry Level Competencies

Upon graduation from the Columbia State Community College MLT Program and initial employment, the medical laboratory technician should be able to demonstrate entry level competencies as listed in the *Standards of Accredited Educational Programs for the Clinical Laboratory Technician/Medical Laboratory Technician* published by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Rd, Suite 720, Chicago, Illinois 60018-5119; telephone 773-714-8880, www.naacls.org. A description of career entry level competencies includes:

At career entry, the clinical laboratory technician/medical laboratory technician will be able to perform routine clinical laboratory tests (such as hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, coagulation, molecular, and other emerging diagnostics) as the primary analyst making specimen-oriented decisions on predetermined criteria, including a working knowledge of critical values. Communications skills will extend to frequent interactions with members of the healthcare team, external relations, customer service and patient education. The level of analysis ranges from waived and point of care testing to complex testing encompassing all major areas of the clinical laboratory. The clinical laboratory technician/medical laboratory technician will have diverse functions in areas of pre-analytical, analytical, and post-analytical processes. The clinical laboratory technician/medical laboratory technician will have responsibilities for information processing, training, and quality control monitoring wherever clinical laboratory testing is performed.

Medical laboratory technicians should be proficient in:

- a. Collecting and processing biological specimens for analysis.
- b. Performing analytical tests on body fluids, cells, and products and correlate the results in diagnosis and treatment.

- c. Recognizing factors that affect procedures and results, and taking appropriate actions within predetermined limits when corrections are needed.
- d. Monitoring quality control within predetermined limits.
- e. Performing preventive and corrective maintenance of equipment and instruments or referring to appropriate source for repairs.
- f. Communicating sufficiently to serve the needs of patients, health care workers, and the public.
- g. Possessing technical training sufficient to orient new employees.
- h. Recognizing the responsibilities of other laboratory and health care personnel and interacting with them with respect for their jobs and patient care.
- i. Applying basic scientific principles in learning new techniques and procedures.
- j. Monitoring quality control within pre-determined limits.
- k. Relating laboratory findings to common disease processes.
- l. Complying with laboratory safety and regulatory standards.
- m. Utilizing information processing in the clinical laboratory.
- n. Maintaining continued professional development.

Counseling

The college shall provide academic advising and career counseling for prospective and enrolled students. In the event an enrolled student needs counseling, this can be provided by the program director and/or Columbia State Community College MLT part time faculty may be involved with student counseling. Clinical affiliate personnel designated as bench instructors at clinical sites occasionally may need to counsel students during clinical Practicum on matters pertaining to professionalism and performance. Counseling can be provided for students on a variety of matters which consist of simple details such as scheduling to more difficult matters such as poor performance in the academic or clinical setting. If necessary, a Student Counseling Report form should be completed and submitted to the program director. This form will be reviewed by the program director and placed in the student's file. Blank copies of this form will be provided to the clinical site or may be copied from this manual.

Columbia State Community College MLT Program Student Counseling Report

Student Name _____ Date _____

Clinical Site _____

Practicum Department(s) _____

Description of unacceptable technical performance:

Description of unacceptable professional attitude or behavior:

Student comments:

Corrective action taken:

I have counseled the student regarding this problem.

Clinical site supervisor/instructor signature: _____

Student Signature: _____

Educational Enrichment Beyond Departmental Objectives

Medical Laboratory Technology students and clinical site personnel engaged in student supervision should not limit the educational experiences to the objectives specific for the particular assigned Practicum laboratory department.

Every attempt is made to expose each student to different sizes of hospital laboratories. Organization of the laboratories will differ immensely as will types of activities, procedures, and instrumentation available.

Students will be exposed to as wide a variety of educational experiences as possible.

Student clinical activities should be in accordance with and in fulfillment of educational objectives. Services to laboratories over and above those needed to achieve the educational goals of the students should not be expected. However, students should not close their eyes to learning experiences which may be available in other areas of the facility's laboratory.

In the case of a slow workload day in the assigned Practicum department, students may observe activities and instrumentation in the rest of the lab (with permission of clinical site staff). These may be learning experiences not available in other lab Practicums.

Columbia State Community College MLT Student Concerns & Responsibilities

Hospital Policies

1. The student will be responsible for complying with the policies of the facility and clinical laboratory department of his/her respective clinical site.
2. Students will not be used to replace paid staff. Students may not take the responsibility or the place of "qualified" staff. However, after demonstrating proficiency, students may be permitted to perform procedures with careful supervision. Some clinical sites may allow, under close supervision, students' test results to be reported out, but these must be co-signed or signed by the supervising clinical site instructor. Students are not employees and are to be placed into academic areas according to the program/course guidelines.
3. Students may be employed in the clinical facility outside regular education hours provided the work does not interfere with regular academic responsibilities. The work must be non-compulsory, paid, supervised on-site, and subject to employee regulations. No student, unless an employee of the clinical facility, should return to the assigned clinical Practicum site for any reason without the consent of the clinical Practicum instructor or laboratory supervisor.
4. Hospital non-pay telephones may be used only for emergencies and only when the student receives permission from the clinical site instructor or lab supervisor.
5. Students will apply college absenteeism and tardiness policies to clinical Practicums. If a student will be late or absent, he/she must call the lab supervisor or clinical site instructor as soon as possible. Lost time must be made up at the convenience of the laboratory. (See Section II B. Attendance/Absences.)
6. Students will adhere to lunch and break schedules of the facility. Students must be granted at least 30 minutes for lunch and 15 minutes for breaks. Students who abuse lunch and break allotments will be subject to disciplinary measures.
7. Students will comply with clinical institutions' smoking/tobacco policies.

8. Students will comply with clinical site parking and safety policies and procedures.
9. Students will treat hospital equipment with care and respect according to facility policies and procedures.

Venipuncture

Columbia State Community College MLT students receive extensive lectures and training on venipuncture using the artificial training arm and capillary puncture during the first two semesters of the program. Actual capillary puncture and venipuncture are performed upon student volunteers. Venipuncture's can start at the first MLT Clinical Practicum I.

Venipuncture is included as part of each Practicum to allow students to develop phlebotomy techniques and continue practicing. COLUMBIA STATE COMMUNITY COLLEGE MLT students should not be used as a replacement for phlebotomy staff in the clinical site. Once entry-level competency is achieved, regular phlebotomy performed by the student should not interfere with competency development in the assigned Practicum area.

Venipuncture upon patients in the clinical site must always be supervised by the clinical site instructor or qualified phlebotomist with patients being informed of the "student" status.

Columbia State Community College MLT students will not be permitted to perform arterial sticks for blood gases or any other purpose. If clinical site personnel perform arterial sticks, students may only observe.

Service Work Performed by Students

According to NAACLS Standards, "students shall not take the responsibility or the place of qualified staff. However, after demonstrating proficiency, students, with qualified supervision may be permitted to perform procedures. Service work by students in the clinical setting outside of regular academic hours must be non-compulsory, paid, supervised on site, and subject to employee regulations."

Assurance that this policy is followed is accomplished through communication between the program director and the students at the clinical sites through private discussion while visiting the facilities. Students are able to relay this to the program director through phone calls, visits, or written clinical site evaluations and written assignments turned in to the program director while completing the clinical Practicum.

A Week 1 Practicum Assignment agreement form signed by both the clinical practicum facility and student contains a list of reminders of activities that are allowed and not allowed during clinicals for each to review. This form was started Spring Semester of 2023 and will be added to the students file.

Week 1 Practicum Assignment

Name: _____

Location: _____

Start date: _____

End date: _____

Hours per day scheduled in lab: _____

Clinical trainer: _____

Students maybe assigned any activity typically performed by technologists in your facility.

Students should be expected to perform duties assigned to MLTs/MTs at the facility.

Depending on the duty assigned and the competency status of the student, immediate supervision may be required.

Students may not be routinely expected to perform support functions in lieu of laboratory procedures for expediency.

Students may not be substituted for paid staff. This includes (but is not limited to) depending upon students in the absence of paid MLTs/MTs, clerical/support staff, etc.

Students may not perform procedures anywhere outside the main department without qualified supervision present. This includes out-patient areas, emergency rooms, surgery, etc.

Students may not repeat any procedure without Direct Supervision by a qualified clinical lab science professional.

Students are accountable for their behavior during all phases of the program including clinical rotations. A student who knowingly violates program policy will be disciplined.

Clinical staff are expected to be familiar with and support program policies.

Signatures:

Student: _____ Date: _____

Clinical Supervisor: _____ Date: _____

Columbia State Community College MLT Dress Code for Class and/or Clinical Practicums

In class, on campus, and at the clinical site, the MLT student's appearance should promote confidence and exhibit professionalism. Observable body piercing (other than ear lobes) is not allowed during clinical Practicums. Columbia State Community College MLT students should be dressed and groomed in a professional manner at all times while in attendance at the campus and at clinical sites.

Clothing worn by students at the clinical site should be tastefully fitted--not too tight or too loose. All clothing should be clean, free of wrinkles, and in good condition.

Students at a clinical site are advised to wear comfortable shoes, either athletic, white leather, or vinyl. Shoes should be clean and polished. No open-toed shoes, high heeled shoes, boots, or sandals are allowed. Regular hosiery or white socks are required.

When assigned to a specific clinical site, the student will dress according to standards and practices of the clinical institution.

Personal Protective Equipment

Columbia State Community College MLT students shall abide by any precautions set forth by the clinical site laboratories regarding the wearing and laundering of reusable lab coats; and the wearing and disposal of disposable lab coats, gown, gloves, etc. Personal protective equipment and attire (lab coats, gowns, gloves, face shield, etc.) necessary when performing clinical laboratory testing, procedures, or phlebotomy will be provided by the clinical site.

Lab Coats

Purchase of lab coats by Columbia State Community College MLT students is optional. Students may desire to have their own (white) laboratory coat for wear when not performing clinical lab tests, procedures, or phlebotomy.

Picture Identification Name Tag

Picture ID tags will be provided by COLUMBIA STATE COMMUNITY COLLEGE for each student. Name tags must be worn at all times while attending the clinical sites. Students who do not wear name tags will be sent home.

General Rules of Good Grooming

General rules of good grooming and appearance should be followed:

- Good hygiene should be maintained and appearance should not be offensive in anyway. (Daily bathing and use of deodorant is mandatory.)
- Students should be neat and clean.
- Students should not wear excessive make-up, perfume or cologne.
- Students should not wear excessive jewelry. (No long earrings or necklaces.) No pierced tongues, eyebrows, or lips. (Modest rings, wristwatches, and simple chain necklaces and bracelets are acceptable.)
- Nail polish and artificial nails should not be applied or worn.

- Long hair must be neatly pulled back and controlled.
- No ornate hair accessories or scarves should be worn.
- Appropriate, unnoticeable undergarments should be worn - no bikini styles or colored garments that will show through white clothing.
- Tattoos must be covered up with a lab coat, per hospital dress code.

Failure to follow the Rules of Good Grooming and the Columbia State Community College MLT Program Dress Code may cause clinical site instructors to request the student to return home until these standards are met.

Failure to abide by these guidelines may also influence the clinical site instructor in evaluation of a student's professionalism.

Scrubs may be purchased from local uniform stores, mail order catalogs, or consignment shops.

Confidentiality

Columbia State Community College MLT students have been required to read and sign a "Confidentiality Agreement" and have HIPAA training before beginning clinical Practicum in area hospitals. The statement reads:

"During the course of the clinical Practicum or laboratory activities in Medical Laboratory Technology courses, any information obtained through working with laboratory tests and/or activities, is by law, confidential. Any information obtained during the clinical Practicum or MLT course laboratory activities which pertains to patients, physicians, employees, hospital matters, or fellow MLT students is also considered confidential. Any disclosures of such information to unauthorized individuals will result in immediate dismissal from the MLT Program."

Professional Conduct

Students accepting admission into the Columbia State Community College MLT Program commit themselves to the generally accepted ethics of the health care field and especially those of the clinical laboratory professional. These are discussed throughout the program. Students will conduct themselves professionally following the ASCP Board of Registry Guidelines for Ethical Behavior.

Unethical conduct by a student is cause for failure/dismissal from the Columbia State Community College MLT Program.

Any and all occurrences of alleged misconduct or unethical behavior will be investigated by the COLUMBIA STATE COMMUNITY COLLEGE MLT Program Director. The matter may be referred to the appropriate campus officials for hearing and determination if deemed necessary. This includes profanity, detected drug use, and use or smell of alcohol. **All Columbia State Community College rules of behavior are in effect for classroom as well as clinical experiences.**

Columbia State Community College MLT students are expected to complete assigned work independently unless instructed differently. Sharing exams, assignments, papers, and involvement in cheating is considered to be unethical behavior is grounds for discipline or immediate dismissal.

Student responsibilities

The Columbia State Community College MLT student will be responsible for:

- a. His/her liability both to him/herself, occupants of his/her vehicle and to others in his/her transportation to and from the clinical site.
- b. His/her personal conduct at the college, the clinical site and transportation to these institutions.
- c. His/her academic achievement and skill achievement in all education situations whether in the classroom or in the clinical site.
- d. His/her own health insurance prior to attending clinical sites.

Assignments

Practicums Packets

During each clinical Practicum, the student will be required to work on materials included in packets provided during Clinical Orientation at the end of the first summer semester (for fall semester use) and again at the end of fall semester (for spring semester use). The packets contain questions for the student to complete as well as case studies and responses to observations made while on clinical Practicum in areas of multi-tasking, quality control, and lab operations. The packets constitute 30% of the clinical Practicum course grade and submission of the contents is required in order to complete the course.

Clinical packets may only be submitted in OnLineCampus as digital documents. The instructor will not accept paper copies in person or via US mail. Students are expected to scan the completed packet as a single document and upload to the assigned dropbox in OnLineCampus. This ensures documentation of date and time of submission. All course work must be completed for the student to either continue on the following semester or to graduate, depending on the semester involved.

Practicum Packets contain exercises which:

- a. Demonstrate critical thinking and problem-solving skills.
- b. Show correlation of observed abnormal test results to clinical significance as learned in the MLT theory courses. (Ex. - When abnormal results are observed, discuss what disease, condition, or metabolic disorder could be the cause. Discuss what further laboratory tests could be used to confirm the cause.)
- c. Discuss observed "out of range quality control values or observed quality assurance problem areas. (Discuss action taken or action that should have been taken. Discuss probable or possible causes of problem. Discuss how problem was resolved or how it should have been resolved.) Act as trouble shooter, inspector, or detective.
- d. Discuss staff interaction, lab operation, team work approach, and machine maintenance.
- e. Discuss specific problems experienced at the clinical site (with multi-tasking).

Evaluations of Clinical Sites by Students

Each student is asked to complete an evaluation of each clinical site after finishing Clinical Practicum I and II and Practicum III and IV. Submit these evaluations to the program director. These will be reviewed by the program director in order to keep abreast of activities and possible problems existing at the clinical sites.

Columbia State Community College MLT Program Evaluation of Clinical Site by Student

Clinical Site: _____

Practicum/Discipline: _____

Student: This evaluation is confidential. Results are compiled and reviewed by the program director. Resulting statistics are shared with clinical site supervisors. Every attempt is made to preserve student anonymity. Completion of this evaluation is not mandatory, but it will assist in continued program improvement.

Circle one score for each item. Write NA if the item is not applicable. Using a scale of 1 - 5, rate each of the following items. (1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Always)

1. Personnel of department presented a positive respectful attitude toward the student. 1 2 3 4 5
2. Instructor presented relevant information and instruction in a clear manner. 1 2 3 4 5
3. Instructor encouraged questions, comments, & discussion. 1 2 3 4 5
4. Instructor & department personnel provided adequate supervision to the student while performing tasks. 1 2 3 4 5
5. Instructor was competent & knowledgeable in area of instruction. 1 2 3 4 5
6. Instructor gave continued feedback of student performance throughout sub-Practicum. 1 2 3 4 5
7. Instructor completed & discussed student evaluation in a timely manner. 1 2 3 4 5
8. Student felt adequate time was spent performing tasks and clinical tests. 1 2 3 4 5
9. Student felt adequate time was devoted to their education. 1 2 3 4 5
10. Department policies & procedures were clearly presented to the student. 1 2 3 4 5
11. Instructor provided assistance with &/or reviewed study question answers. 1 2 3 4 5
12. Instructor supplemented training with study aids (slides, unknowns, lectures, etc.) 1 2 3 4 5
13. Student developed confidence in skills learned in this sub-Practicum. 1 2 3 4 5
14. Student felt valued as a member of the department. 1 2 3 4 5
15. Student felt site should continue to be used for this sub-Practicum. 1 2 3 4 5

List strengths of this Practicum or clinical site.

List weaknesses of this Practicum or clinical site.

Comment on your academic preparation for this Practicum.

Additional comments

Training Concerning Blood Borne Pathogens & TB Standards

Laboratory safety is taught in each Columbia State Community College MLT course. All students read and sign acknowledgment sheets for Laboratory Safety Precautions.

Particular attention is paid to Universal Precautions and the Blood Borne Pathogens Standard. In the Introduction to the Clinical Laboratory course, students receive lectures, observe the DVD's and or complete modules of LAB CE assigned pertaining to -- "Laboratory Safety and Infection Control" and "OSHA's Blood Borne Pathogens Standard". There will be opportunities to ask questions about these topics in class. Lab CE transcripts or a signed form with the student's signature will be used to verifying training.

Columbia State Community College MLT Student Substance/Alcohol Abuse: Clinical-Classroom

Introduction

The Columbia State Community College MLT Program is committed to sponsoring safe, healthy, lawful, productive health program. Pursuant to that commitment, Columbia State Community College MLT Program has adopted the following Substance Abuse Policy. This policy applies to all students enrolled in or applying to the Columbia State Community College MLT program.

Substance Abuse/Misuse at a Clinical

The following actions/conditions are prohibited:

- Deficient clinical performance due to use of drugs and/or alcohol.
- Reporting for a clinical session with the odor of alcohol or illegal chemicals on the breath.
- Possessing any illegal narcotic, hallucinogen, stimulant, sedative or similar drug while on clinical time.
- The student should refrain from using any intoxicating liquor or illegal substances within 24 hours prior to or while on clinical time, on the premises or away from the premises when required to return to the clinical facility.
- Removing any drug from the institution or patient supply for any reason.
- During Clinical, students are subject to all clinical facility policies regarding random and/or "for cause" drug/alcohol testing.

All students have a responsibility to notify their instructor(s) if they are taking any medications which may impact student's ability to provide safe, competent care. The purpose of this policy is to protect the welfare of clients, students, instructors, Columbia State Community College and affiliate agencies.

All questionable student behavior will be dealt with through the following procedure:

- If clinical performance in the judgment of the clinical instructor could be or is adversely affected by a prescribed medication, the student will be sent home and considered ill for make-up purposes.
- Should an incident or an occasion in clinical occur when the instructor or staff has a reasonable suspicion of use or being under the influence, the student may choose to submit immediately to a substance abuse assessment and urinalysis.

Testing Results

The results of the testing shall be disclosed to the student and to the MLT Program Director. After this disclosure is made, the Program Director shall arrange a conference with the student to discuss the test results. Students may not resume in the program without first attending this conference. Students who test positive for drugs and/or alcohol can be dismissed from the program. Student who test negative for drugs and/or alcohol may resume participation in class. Students who promptly provide an adequate legitimate medical explanation to the clinical site for any drugs and/or alcohol in the serum or urine sample may also resume participation in classes.

Evaluation of Student

Clinical Practicum Grading Criteria

Toward the end of each practicum, the student will be evaluated by the clinical site instructor. The evaluation should be reviewed by the instructor and the student, then signed by both and returned to the program director. At mid - Practicum, instructors and students should informally evaluate student progress and performance. If a problem exists, at any time, the program director should be notified. A Columbia State Community College MLT Program Counseling Form may be used for this purpose.

The formal evaluation done by the clinical site instructor should be based on observation of the student's performance and discussion of understanding of the lab procedures.

Clinical site instructors may choose to give students unknown specimens or question students in writing or orally to aid in instruction and evaluation.

Thirty percent (30%) of each practicum grade is based on the packet submitted to the program director. These packets are due the date stated on the clinical assignment sheet. Packets not received by these due dates will be assigned a grade of zero points. Details about the packet assignment may be found in the Columbia State Community College MLT Clinical Practicum Manual.

Individual Clinical Practicum Task List and Professional Skills Evaluation scores will be assigned by the clinical site instructor near the end of each Practicum, reviewed by the instructor and student together, signed, and given to the Columbia State Community College MLT Program Director once the student has completed all assigned days of the clinical Practicum.

The students will submit the signed clinical practicum task list and professional skill evaluations scores as well as their clinical packet and attendance sheets to the Program Director for determination of their overall clinical practicum graded based on the following criteria.

Attendance will be scored based on the following:

- No unexcused absences or tardies - 10 points.
- Two tardies will be considered 1 unexcused absence with a five-point deduction.
- One unexcused absence is a five-point deduction.

If the professional skills evaluation indicates a student was absent on several days or was tardy on multiple days and or if the Program Director was notified in writing of a combination of multiple tardies or absences Zero points will be granted for attendance.

The grading criteria for each Practicum will consist of scores from the following:

- Practicum I, II, III, IV
- Practicum Skill List Score 30%
- Professional Skills Evaluation Score 30%
- Clinical Packet Score 30%
- Attendance 10%

Columbia State Community College MLT Clinical Program Grading Scale

A	93 - 100%
B	84 - 92
C	75 - 83
<hr/>	
Below	75 is Failing
D	65 - 74
F	64 & below

Columbia State Community College MLT Program Retention Policy

Retention in the Columbia State Community College MLT Program is based on Course Grades.

Retention in the Columbia State Community College MLT Program requires that the MLT student earn a grade of "C" or better in all MLT and natural science courses (Microbiology, Anatomy & Physiology). Grades of "D", or "F" are considered failing. The student must maintain a "C" average in all courses required in the MLT curriculum.

If a student earns less than a "C" in an MLT or required natural science course, the course must be repeated with a passing grade ("A", "B", or "C"). MLT courses are only offered once a year, so the student will have to wait to take courses until the pre-requisite course has been completed with a passing grade. All courses must be taken in sequence as specified by course pre-requisites unless permission is granted by the program director.

"C" Average = 2.0 on a 4 pt. scale.

MLT student grades will be reviewed by the MLT Program Director at the end of each semester.

A student who earns less than a "C" in an MLT or BIOL class will be academically unable to continue in the program. The student may request, in writing to the program director, a request for readmission the following year at the point of exit. Readmission is partially based upon space available in the subsequent cohort and is not guaranteed.

Practicum Task List

The clinical site instructor follows the Practicum Task List for completion of technical tasks. The Practicum Task Lists are general outlines of tasks that the student should have the opportunity to complete or observe during the clinical Practicums. Clinical sites vary in the ability to offer the same opportunities, so additional blanks at the end of the Practicum Task List may be used to list unique tasks. If a clinical site does not perform a particular test/task, that task should be marked NA (Not Applicable). Task evaluations should be based on terminal performance (not upon initial and early task performance).

Evaluation of technical tasks should utilize the following criteria:

Score:

1 = F = Error, unacceptable Performance. The student performs the task with inconsistent technical skills and does not follow clinical site policies while performing tasks. The student has consistent performance errors appearing to make no attempt to improve performance or both.

2 = D = Unacceptable Performance. The student performs the task with consistent technical skills. The student needs direct, constant supervision and instruction when performing task.

3 = C = Acceptable Performance (Average). The student performs skills with average technical skills, requiring moderate supervision and appears to understand the basic understanding of the procedures or assays.

4 = B = Good Performance (Above Average). The student performs the task with good technical skill with minimal supervision and demonstrates a basic understanding of the procedures or assays.

5 = A = Superior Performance (Excellent). The student performs the task demonstrating superior technical skill with minimal supervision and demonstrates a thorough understanding of the principle and its application.

The clinical site instructor should complete the scores for individual tasks. Further calculations will be done by the program director.

A Task List Average Score is determined by dividing the Total Number of Task Evaluation Points earned by the Total Number of Tasks Performed.

Task List Average Score = The program director will calculate an average score based on total task points earned as a percentage of total task points available. (Not every task is available in every rotation.)

The Task List Average Score (somewhere between 1 & 5) is applied to Clinical Site Evaluator's Scale, and a letter grade is determined.

The maximum number of points for a particular letter grade is awarded according to the MLT Program Grading Scale (out of a possible 100).

Points are then multiplied by the weighted percentage for the evaluation component (0.30) and this value is combined with scores for the other two evaluation components and points granted for attendance to determine the Practicum Grade.

For example, a student who performs 24 tasks scoring twelve 3's, nine 4's, and four 5's -- earns a Total Number of Task Evaluation Points of 92. This is multiplied by .30 giving 28 points to this section of the evaluation.

The Task List Average Score is then applied to the Clinical Site Evaluator's Grading Sheet for an assign 28 points.

Professional Skills Evaluation

The student shall be evaluated based on observed terminal behaviors (seen at the end of the Practicum). Instructors may also comment on student strengths and weaknesses. Students may also comment.

The clinical site instructor should evaluate the student using the following criteria:

1 = F = Student has difficulty grasping important functions and tasks in the laboratory. Consistently performs with errors, demonstrates an unacceptable attitude, or both.

2 = D = Student functions inconsistently in the laboratory, with constant and detailed instruction required to achieve acceptable performance.

3 = C = Student demonstrates acceptable performance with supervision. Requires assistance with evaluation of situations and solutions.

4 = B = Student demonstrates good performance, is careful, and demonstrates adequate attention to detail. Requires minimal supervision.

5 = A = Student demonstrates superior performance with an above - average level of skill. Rarely requires assistance with evaluation of situations and solutions.

The clinical site instructor should indicate a score for each item.

Further calculations will be done by the program director.

Each point column of the Professional Skills Evaluation are totaled and added together to obtain a Total Point Value (TPV) out of a possible 55 points. Total point Value 50 divided by Total points Possible x 100 x .30 is the overall clinical score.

For example, If the student receives 50 points on their Profession Skills evaluation and this is divided by possible 55 available points and then multiplied by .30, then they receive 27 points. So far, if we add the 28 points already received, plus the 27 points above, the student currently has 55 points.

Packet Evaluation

The packet assignment will be reviewed and graded by the Program Director and given a score from 0 to 100 points. The total points earned for the packet is 30% of the grade.

If the student receives 80 points clinical packet assignment and this is multiplied by .30, the student receives 24 points.

Attendance

Attendance will be scored based on the following:

- No unexcused absences or tardies - 10 points.
- Two tardies will be considered 1 unexcused absence with a 5 point deduction.
- One unexcused absence is a five point deduction.

Student's Clinical Final Grade (Example Summary)

Thus, if you add up the scored points of the student: 28, 27, and 24, the student has a total of 79 points. If the student did not have any unexcused absences or tardies they will receive 10 points for attendance. Their total score is 89 points. They will receive a "B" according to the grading scale.

Practicum Task List = 28 points (0.30)

Professional Skills = 27 points (0.30)

Packet Questions = 24 points (0.30)

Attendance = 10 points (0.10)

Total score is 89 points or a B for the clinical practicum course grade.

Clinical Site Grading Checklist

Please initial

_____ I understand the grading scale at clinicals

_____ I understand the grading scale is for both clinical and professional work

_____ I understand I must average a "C" average to stay in clinicals

_____ I understand that an average of a "D" is cause for dismissal from the program

_____ I understand that if I am given an alternative site due to a conflict that if I do not perform better at this site that this is cause for dismissal

_____ I understand that if I am absent or late to a clinical site twice that I may be dismissed

Grading Scale:

- A. Exceeds. Excellent in performance. Demonstrates excellent skills and knowledge. Performs tasks with little explanation and can if allowed run the bench with minimal supervision.
- B. Good. Demonstrates above average skill with above average skills and knowledge. Can perform most tasks with minimal explanation and requires some supervision at the bench.
- C. Average. Has ample skills and knowledge but has to have assistance in work performed as well as needs supervision at the bench.
- D. Poor. Does not possess adequate skills or knowledge and cannot be left unsupervised. Can perform minimum tasks.
- F. Failing. Possesses very little skill or knowledge that is inadequate to operate as a tech in any capacity. Cannot be left alone and should not be allowed to work as a tech.

NA = Not applicable. Test or work skill not needed/done at this facility.

I have read and understand the grading policy and what is expected of me as a working/student tech.

Print Name: _____

Signature: _____

Date: _____

**Columbia State Community College MLT Professional Skills Evaluation Form
Week 1**

Student Name: _____ Clinical Site _____ Rotation _____

Rate student performance in each category relative to point in program.		Excellent	Good	Average	Poor	Unacceptable	N/A
Excellent: Superior Performance, rarely requires assistance. Good: Careful, adequate attention to detail, needs minimal supervision. Average: Acceptable performance with supervision. Poor: Functions inconsistently in the lab; needs constant/detailed instruction. Unacceptable: Difficulty grasping concepts and functioning in the laboratory.							
Initiative	Performs routine assigned tasks; seeks unsolicited tasks.						
Interest	Asks relevant questions; consistently alert and attentive						
Responsibility	Completes required assignment						
Reaction to Criticism	Accepts constructive criticism; uses suggestions for improvement.						
Interpersonal Relationships	Works as a team member; Helpful Functions well; Communicates effectively						
Professional Performance	Maintains work quality & quantity under stress Maintains composure; Organizes task load Adheres to MLAB program dress code						
Integrity	Admits to errors/mistakes; Follows procedures without shortcuts Demonstrates consistent attention to detail; Monitors QC procedures						
Cleanliness & Orderliness	Assigned areas is clean/neat Replenishes supplies and reagents						
Promptness	Arrives for assignments on time & begins assignments promptly						
Confidence	Displays confidence after instruction; recognizes limitations						
Overall Performance	Records are accurate; Lab techniques are strong; Safety procedures followed; Inconsistent results are identified						
Student Performance Rating: _____							

Signature of Student: _____

Date: _____

Signature of Supervisor: _____

Date: _____

Comments:

Clinical Site Instructor's Comments on Student Strengths:

Clinical Site Instructor's Comments on Student Weaknesses:

Student's Comments:

Clinical Site Instructor Signature: _____ Date _____

Student Signature: _____ Date _____

Columbia State Community College MLT Professional Skills Evaluation Form End of Rotation

Student Name: _____ Clinical Site _____ Rotation _____

Rate student performance in each category relative to point in program.		Excellent	Good	Average	Poor	Unacceptable	N/A
Excellent: Superior Performance, rarely requires assistance. Good: Careful, adequate attention to detail, needs minimal supervision. Average: Acceptable performance with supervision. Poor: Functions inconsistently in the lab; needs constant/detailed instruction. Unacceptable: Difficulty grasping concepts and functioning in the laboratory.							
Initiative	Performs routine assigned tasks; seeks unsolicited tasks.						
Interest	Asks relevant questions; consistently alert and attentive						
Responsibility	Completes required assignment						
Reaction to Criticism	Accepts constructive criticism; uses suggestions for improvement.						
Interpersonal Relationships	Works as a team member; Helpful Functions well; Communicates effectively						
Professional Performance	Maintains work quality & quantity under stress Maintains composure; Organizes task load Adheres to MLAB program dress code						
Integrity	Admits to errors/mistakes; Follows procedures without shortcuts Demonstrates consistent attention to detail; Monitors QC procedures						
Cleanliness & Orderliness	Assigned areas is clean/neat Replenishes supplies and reagents						
Promptness	Arrives for assignments on time & begins assignments promptly						
Confidence	Displays confidence after instruction; recognizes limitations						
Overall Performance	Records are accurate; Lab techniques are strong; Safety procedures followed; Inconsistent results are identified						
Student Performance Rating: _____							

Signature of Student: _____ Date: _____

Signature of Supervisor: _____ Date: _____

Comments:

Clinical Site Instructor's Comments on Student Strengths:

Clinical Site Instructor's Comments on Student Weaknesses:

Student's Comments:

Clinical Site Instructor Signature _____ Date _____

Student Signature _____ Date _____

Columbia State Community College MLT Professional Skills Evaluation Form

Student Name: _____ Clinical Site _____

Rate student performance in each category relative to point in program.		Excellent	Good	Average	Poor	Unacceptable	N/A
Excellent: Superior Performance, rarely requires assistance. Good: Careful, adequate attention to detail, needs minimal supervision. Average: Acceptable performance with supervision. Poor: Functions inconsistently in the lab; needs constant/detailed instruction. Unacceptable: Difficulty grasping concepts and functioning in the laboratory.							
Initiative	Performs routine assigned tasks; seeks unsolicited tasks.						
Interest	Asks relevant questions; consistently alert and attentive						
Responsibility	Completes required assignment						
Reaction to Criticism	Accepts constructive criticism; uses suggestions for improvement.						
Interpersonal Relationships	Works as a team member; Helpful Functions well; Communicates effectively						
Professional Performance	Maintains work quality & quantity under stress Maintains composure; Organizes task load Adheres to MLAB program dress code						
Integrity	Admits to errors/mistakes; Follows procedures without shortcuts Demonstrates consistent attention to detail; Monitors QC procedures						
Cleanliness & Orderliness	Assigned areas is clean/neat Replenishes supplies and reagents						
Promptness	Arrives for assignments on time & begins assignments promptly						
Confidence	Displays confidence after instruction; recognizes limitations						
Overall Performance	Records are accurate; Lab techniques are strong; Safety procedures followed; Inconsistent results are identified						
Student Performance Rating: _____							

Signature of Student: _____

Date: _____

Signature of Supervisor: _____

Date: _____

Comments:

Clinical Site Supervisors: Please rate student according to observed, behavior relative to current status in program.

Excellent:	Superior Performance, rarely requires assistance.
Good:	Careful, adequate attention to detail, needs minimal supervision.
Average:	Acceptable performance with supervision.
Poor:	Functions inconsistently in the lab; needs constant/detailed instruction.
Unacceptable:	Difficulty grasping concepts and functioning in the laboratory.

Clinical Site Instructor's Comments on Student Strengths:

Clinical Site Instructor's Comments on Student Weaknesses:

Student's Comments:

Clinical Site Instructor Signature _____ Date _____

Student Signature _____ Date _____

**Columbia State Community College MLT Program Practicum Grade Form
Practicum I, II, III, IV**

Student Name _____

Semester/Year _____

Practicum Dates _____

Clinical Site _____

Assigned Department _____

Final Task List Score = _____ (0.30)

Professional Skills Evaluation
Score = _____ (0.30)

Clinical Packet Score = _____ (0.30)

Attendance = _____ (0.10)

Letter Grade _____

Comments:

Program Director _____ Date _____

Responsibilities of Program Director/Officials

- A. Assignment of MLT students to clinical sites and notifications of clinical sites of Practicum assignments.
- B. Receiving student evaluations and attendance records from clinical sites.
- C. Assignment of grades to students for clinical sites by use of evaluation and attendance records from clinical site instructors.
- D. Keeping communications open with clinical sites and students.
- E. Visiting each clinical site at least once annually. The program director may make additional visits at any time. Clinical site supervisors and/or students may request additional visits by the program director.

Responsibilities of Clinical Site Supervisors/Coordinators

- A. Ensuring proper instruction and Practicum of the MLT student.
- B. Ensuring that student evaluations are completed upon students' completion of assigned clinical Practicum days.
- C. Returning clinical site Facility Fact sheets, Faculty Fact sheets, and other necessary documentation to program director.
- D. Keeping communications open between the clinical site and the program director.

Immunochemistry

Departmental Objectives

Upon completion of the Clinical Practicum in the Blood Bank department, the student should be able to accomplish the following:

1. Perform daily quality control practices and record QC for:
 - Refrigerators
 - Incubators
 - Reagents and cells
2. Check blood units for contamination and dating period discarding expired and contaminated units.
3. Perform blood inventory, ordering, and log-in of units received.
4. Obtain and prepare all needed reagents and supplies.
5. Retype blood units.
6. Accurately perform ABO and Rh grouping (forward and reverse).
7. Accurately perform weak D (Du) typing (if done).
8. Accurately perform compatibility cross match.
9. Accurately perform antibody screens.

10. Accurately identify antibodies (if done).
11. Know how to select, cross-match, and process units of blood for a patient with an antibody.
12. Prepare donor blood for issue.
13. Issue blood and components to proper person and complete proper paperwork correctly.
14. Handle, store and log units of returned blood (used and unused) properly.
15. Perform follow-up for incompatible cross-match.
16. Perform direct anti-globulin test.
17. Perform indirect anti-globulin test.
18. Perform pre-natal work up.
19. Perform post-natal work up.
20. Prepare Rh Immune Globulin for a patient (if done).
21. Verify all abnormal, unusual, or incompatible results.
22. Prioritize work in the blood bank.
23. Neatly, correctly, and completely record all test results and information in proper places.
24. Perform all tests using proper laboratory techniques.
25. Perform routine maintenance on blood bank equipment.
26. Perform fetal screens.
27. Apply clinical phlebotomy theory.
28. Learn & practice phlebotomy skills with organization, precision, and technique.
29. Recognize safety & precaution signs and labels.
30. Keep accurate QC records, and follows QC standards.
31. Locate safety equipment.
32. Disinfect work area.
33. Follow facility's safety policies.

Practicum Task List

Student Name: _____

MLAB Evaluation Sheet

Blood Bank Checklist

Excellent: Superior Performance, rarely requires assistance.
 Good: Careful, adequate attention to detail, needs minimal supervision.
 Average: Acceptable performance with supervision.
 Poor: Functions inconsistently in the lab; needs constant/detailed instruction.
 Unacceptable: Difficulty grasping concepts and functioning in the laboratory

<i>Rate student performance in each category</i>	Excellent	Good	Average	Poor	Unacceptable	N/A
Is prepared for Tasks						
Has applicable Knowledge						
Performs QC						
Checks Inventory						
Checks Temps						
Knows Specimen Requirements						
Processes New Inventory						
Knows Reagents						
Types Blood						
Antibody Screens						
Crossmatches						
Antibody ID						
Understands issuing Blood						
Daily Maintenance						
Work Flow						
DAT						
RHIG						
Fetal Screen						
Keeps Accurate Records						
Critical Thinking						
Troubleshooting						
Platelets						
FFP						
Antigen types units						
Cord Blood						
Emergency Release/Massive						
Startup/Shutdown						
Transfusion Reaction						

Name of Clinical Site: _____ Student Signature: _____

Signature of Supervising Tech: _____

Comments:

Hematology/Coagulation

Departmental Objectives

Upon completion of the Clinical Practicum in the Hematology/Coagulation department, the student should be able to accomplish the following:

1. Discuss how QC is monitored for the different procedures and instrumentation in the hematology & coagulation departments, how QC records are evaluated, and proper corrective actions to be taken if QC values are outside established limits.
2. Evaluate histograms and predict cause of abnormal histograms.
3. Discuss the principle of operation of instruments used in these departments and utilize these instruments to obtain specimen results which are within acceptable limits.
4. Obtain and prepare all necessary reagents and supplies.
5. Perform start-up, shut-down, maintenance, and QC on the instruments.
6. Perform manual RBC, WBC, platelet counts, hemoglobin and hematocrit determinations (if done).
7. Calculate erythrocyte indices.
8. Prepare, stain, and count reticulocyte smears.
9. Prepare and stain peripheral blood smears and perform differential counts manually.
10. Estimate platelets and note erythrocyte morphology on stained blood smears.
11. Perform testing for Hgb S and ESR's (if done).
12. After examining test results for acceptable ranges, note abnormal test results, and correlate with disease processes.
13. Verify and correct all abnormal or unusual results.
14. Be aware of panic values for each test performed and know procedure to follow when panic values are obtained.
15. Separate plasma from cells within required time restraints.
16. Perform, log, and report out results for the following coagulation tests: PT, APTT, Bleeding Time, Thrombin Time, Fibrinogen, Fibrinogen degradation products (if done).
17. Discuss why tests are repeated to obtain reproducible results and why rapid reporting of results is critical.
18. Discuss the principles and purpose of the PT and APTT tests.
19. Apply clinical phlebotomy theory.
20. Learn & practice phlebotomy skills with organization, precision, and technique.
21. Recognize safety & precaution signs and labels.

22. Keeps accurate QC records and follows QC standards.
23. Locate safety equipment.
24. Disinfect work area.
25. Follow facility's safety policies.

Practicum Task List

Student Name: _____

**MLAB Evaluation Sheet
Hematology/Coag Checklist**

Excellent: Superior Performance, rarely requires assistance.
 Good: Careful, adequate attention to detail, needs minimal supervision.
 Average: Acceptable performance with supervision.
 Poor: Functions inconsistently in the lab; needs constant/detailed instruction.
 Unacceptable: Difficulty grasping concepts and functioning in the laboratory

<i>Rate student performance in each category</i>	Excellent	Good	Average	Poor	Unacceptable	N/A
Is prepared for Tasks						
Has applicable Knowledge						
Performs QC						
Checks Inventory						
Checks Temps						
Knows Specimen Requirements						
Processes New Inventory						
Knows Reagents						
Runs CBC's						
Understands Histograms						
Understands RBC Indices						
Manual Diff's						
WBC Morphology						
Daily Maintenance						
Work Flow						
RBC Morphology						
PT/PTT						
ESR						
Startup/Shutdown						
Critical Thinking						
Troubleshooting						
Retics						
Urinalysis						
HCG's						
Miscellaneous						
Body Fluids						

Name of Clinical Site: _____ Student Signature: _____

Signature of Supervising Tech: _____

Comments:

Microbiology/Serology

Departmental Objectives

Upon completion of the Clinical Practicum in the Microbiology/Serology departments, the student should be able to accomplish the following:

1. Explain the principles of operation of instrumentation and manual methods used in the department. Utilize instrumentation to obtain culture results, counts, identification, and susceptibility testing.
2. Obtain and prepare all necessary reagents, media, and supplies.
3. Understand start-up, shut-down, and maintenance of instruments.
4. Discuss methods of monitoring QC of manual procedures and instrumentation in the department including QC data evaluation and corrective action taken when necessary.
5. Select proper media and inoculate correctly for each specimen type.
6. Differentiate potential pathogen colony characteristics vs. normal flora to enable colony selection.
7. Choose and perform tests required to identify potential pathogens.
8. Interpret tasks used to identify potential pathogens.
9. Perform anti-microbial susceptibility testing on isolates.
10. Perform bacterial serotyping (if done).
11. Report out culture results.
12. Perform and interpret Gram stains, AFB stains (if done), wet mounts and other stains performed in the microbiology department.
13. Perform blood cultures correctly - inoculation, incubating, reading and sub-culturing in specified manner.
14. Process TB cultures (if done).
15. Process mycology cultures (if done).
16. Process specimens for parasitology exams (if done) and identify parasites found.
17. Discuss the principle and methods used in serology testing techniques.
18. Show correct technique, interpretation, and reporting of results for all serology techniques performed in the department (e.g. agglutination, precipitation, flocculation, EIC, RIA, ELISA, nephelometry, immunofluorescence, enzyme inhibition - if done).
19. After performing tests, note abnormal test results and correlate them with disease processes.
20. Discuss the principle and methods used in serology testing techniques.
21. Apply clinical phlebotomy theory.

22. Learn and practice phlebotomy skills with organization, precision, and good technique.
23. Recognize safety and precaution signs and labels.
24. Follow facilities safety policies.
25. Locate safety equipment.
26. Disinfect work area.
27. Keep accurate QC records and follows QC standards.
28. Identify critical results.

Practicum Task List

Student Name: _____

Microbiology/Serology Checklist

Excellent: Superior Performance, rarely requires assistance.
 Good: Careful, adequate attention to detail, needs minimal supervision.
 Average: Acceptable performance with supervision.
 Poor: Functions inconsistently in the lab; needs constant/detailed instruction.
 Unacceptable: Difficulty grasping concepts and functioning in the laboratory

<i>Rate student performance in each category</i>	Excellent	Good	Average	Poor	Unacceptable	N/A
Is prepared for Tasks						
Has applicable Knowledge						
Performs QC						
Checks Inventory						
Checks Temps						
Knows Specimen Requirements						
Sets up Plates						
Streaking Technique						
Reads Plates						
Identifies Bacteria						
Gram Stain						
Other Stains						
Sets up ID and Sensitivity						
Blood Cultures						
Micro QC						
Daily Maintenance						
Work Flow						
Operation of Instruments						
Critical Thinking						
Troubleshooting						
Special Procedures						
Molecular						
Occult Bloods						
Rapid Tests						

Name of Clinical Site: _____ Student Signature: _____

Signature of Supervising Tech: _____

Comments:

Clinical Chemistry

Department Objectives

Upon completion of the Clinical Practicum in the Clinical Chemistry departments, the student should be able to accomplish the following:

1. Explain the principle of operation of instrumentation and manual methods used in the departments. Utilize instrumentation to obtain accurate specimen results.
2. Identify and determine suitability of patient specimens.
3. Obtain and prepare all necessary reagents and supplies.
4. Discuss methods of monitoring QC of manual procedures and instrumentation in the departments including QC data evaluation and corrective action taken when necessary.
5. Follow prescribed procedures to operate instrumentation to obtain acceptable patient results.
6. Understand start-up, shut-down, and maintenance of instruments.
7. Perform necessary calculations using instrument printout results to obtain reportable patient results and report these accurately.
8. Examine results for acceptability, verify and repeat as indicated.
9. Be aware of panic values for tests performed and know protocol for when panic values are obtained.
10. Discuss chemical principle behind basic chemistry and urinalysis procedures and the clinical significance of results for tests for chemical constituents.
11. Discuss clinical significance of performing profiles to monitor liver function, renal function, cardiac status, iron studies, fetal maturity monitoring, endocrine studies, diabetic monitoring, etc.
12. Perform all aspects of a routine urinalysis: physical and chemical characteristics (manually and/or automated) and microscopic examination of urinary sediment. Interpret and report results.
13. Perform occult blood tests on feces specimens.
14. Perform pregnancy testing.
15. Perform miscellaneous tests.
16. Apply clinical phlebotomy theory.
17. Learn and practice phlebotomy skills with organization, precision, and good technique.
18. Recognize safety and precaution signs and labels
19. Follow facility's safety policies.
20. Locate safety equipment.
21. Disinfect work area.

Mini Chemistry Rotation Objectives

1. Identify and determine suitability of patient specimens as it relates to tissue samples and preparation. Some of the items to be discussed might include proper handling of specimen, appropriate fixation, paraffin block preparation, antigen retrieval, selection and preparation of antibody and reagents, incubation, washing, and counterstaining.
2. Chain of Custody Forms and special handling requirements for tissue samples will be discussed.
3. Immunohistochemistry Workflow and selection of reagents including specific target antigens (proteins) in tissue sections using antibodies will be discussed as it relates to clinical chemistry and immunology.

Practicum Task List

Student Name: _____

Chemistry Checklist

Excellent: Superior Performance, rarely requires assistance.
 Good: Careful, adequate attention to detail, needs minimal supervision.
 Average: Acceptable performance with supervision.
 Poor: Functions inconsistently in the lab; needs constant/detailed instruction.
 Unacceptable: Difficulty grasping concepts and functioning in the laboratory

<i>Rate student performance in each category</i>	Excellent	Good	Average	Poor	Unacceptable	N/A
Is prepared for Tasks						
Has applicable Knowledge						
Daily Startup						
Run QC						
Run Calibrations						
Daily maintenance						
Understands ISE						
Loads Reagents						
Sample Processing						
Manual Dilutions						
Drug Screens						
Aware of Delta Checks						
Recognizes/Calls Panics						
Timed Specimens						
Work Flow						
24 Hr Urines						
Operation of Instruments						
Specimen Req for Tests						
Critical Thinking						
Troubleshooting						
Special Chemistries						
Electrolytes						
Routine Chemistries						
Immunoassay						
Drug Monitoring						
Miscellaneous						

Name of Clinical Site: _____ Student Signature: _____

Signature of Supervising Tech: _____

Comments:

Practicum Task List

Student Name: _____

Mini Chemistry Rotation Checklist

Excellent: Superior Performance, rarely requires assistance.
 Good: Careful, adequate attention to detail, needs minimal supervision.
 Average: Acceptable performance with supervision.
 Poor: Functions inconsistently in the lab; needs constant/detailed instruction.
 Unacceptable: Difficulty grasping concepts and functioning in the laboratory

<i>Rate student performance in each category</i>	Excellent	Good	Average	Poor	Unacceptable	N/A
Sample Accessing						
Understands concepts of Patient identifiers						
Demonstrates knowledge of acceptable and unacceptable samples						
Chain of Custody						
Special Handling of Delivery Requirements						
Grossing						
Describing						
Measuring						
Inking						
Sectioning						
Testing Methods						
Immunohistochemistry						
Tissue Preparation						
Antigen Retrieval						
Block Background						
Detect Target						
Visualize Sample						

Student Signature: _____
 Signature of Supervising Tech: _____
 Clinical Site: _____

Comments:

**Columbia State Community College MLT Program
Student Absence Report**

Student Name _____ Date _____

Clinical Site _____

Practicum Department(s) _____

Date/Time called in _____ Call received by _____

Reason for Absence

Clinical Site Supervisor/Instructors Signature: _____

Documentation Required Yes _____ No: _____

Planned Makeup Schedule:

Completed Makeup Schedule:

Student Signature _____ Date _____

MLT Clinical Rotation Form, Fall and Spring Rotation Year: _____

Student Name: _____ Clinical Start Date: _____

Clinical Site: _____ Clinical Rotation: _____

Clinical Supervisor: include/verify date, total hours/day (not including lunch), and if the student was punctual (on time in the morning and following lunch/breaks.)

DAY	DATE	Hours Per Day Not including Lunch	Punctual Yes/No	Supervisor Initials
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
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16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

Clinical Practicum I, II, III are 135 hours
 Clinical Practicum IV is 180 hours

Student Records

FERPA: Confidentiality of Student Records

Columbia State Community College complies with the Family Educational Rights and Privacy Act (FERPA), which is designed to protect the confidentiality of personally identifiable educational records of students. Student rights are as follows:

1. The right to inspect and review his/her educational records within 45 days of the day the College receives a request for access. Students should submit to the Director of Records, the dean, head of the academic department, or other appropriate official, written requests that indicate the record(s) they wish to inspect. The College official—the Director of Records, Dean, department head, or other appropriate professional—will notify the student of the time and place the record(s) they wish to inspect will be available for review.
2. The right to request an amendment of his/her educational records that the student believes is inaccurate or misleading. Students should write the appropriate College official who is responsible for the record and clearly identify the part of the record that they desire changed, and explain why the current reading is inaccurate or misleading. The adjudicating official will notify the student of the College's decision. If the College does not elect to amend the record as requested, the communication will advise the student of his/her right to a hearing regarding the request for amendment. Information regarding hearing procedures will also be included. After the hearing, if the College still decides not to amend the record, the student has the right to place a statement with the record setting forth his or her view about the contested information.
3. The right to consent to disclosures of personally identifiable information contained in his/her educational records, except to the extent that FERPA authorizes disclosure without consent. Under the provisions of FERPA, the College may disclose directory information to any person requesting it without the consent of the student. Directory information may include the student's name, address, telephone number, date and place of birth, enrollment status (full-time or part-time, or withdrawn), major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and most recent previous educational institution attended. Examples of such disclosures include, but are not limited to, play-production programs, honors recognition lists, graduation programs, and athletic activity sheets and programs.
4. The right to file a complaint with the U.S Department of Education concerning alleged failures by Columbia State to comply with the requirements of FERPA. The name and address of the office that oversees FERPA may be obtained from the Director of Records.

Students may request that "Directory Information" be withheld from anyone except Columbia State school officials with legitimate educational interests. A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position; a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent); a person serving on the Columbia State Foundation; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his/her tasks. A school official has a legitimate educational interest if the official needs to review an educational record in order to fulfill his/her professional responsibility.

In most instances, the College will require written permission from the eligible student in order to release any information from the student's education record. FERPA allows for disclosure of records, without consent, to the following parties or under the following conditions:

- Other schools to which a student is transferring.
- Specified officials for audit or evaluation purposes.

- Appropriate parties in connection with financial aid to a student.
- Organizations conducting certain studies for or on behalf of the school
- Accrediting organizations.
- To comply with a judicial order or lawfully issued subpoena.
- Appropriate officials in cases of health and safety emergencies.
- State and local authorities, within a juvenile justice system, pursuant to specific State law.

Students wishing to refuse disclosure must submit a request for Non-Release of Directory Information to the Records office (Jones Student Center 101), after registering for classes. This request will remain in effect until the student signs a form to cancel the request.

Student Privacy Act

The MLT Program Director will not release addresses or phone numbers to clinical affiliates or other sources unless the student gives permission either in written form and/or verbal. Student information concerning physicals, immunizations, counseling, discipline, etc. is confidential and will not be released to any unauthorized entity unless given permission by the student either in written form and/or verbal.

Graduation Requirements - Associate of Applied Science:

The student must complete the following:

Earning 25% of total program credits in residence at Columbia State.

GPA of at least 2.0 in program courses.

Cumulative GPA must be at least 2.0 or higher

Take an exit exam

Transfer Options

The Medical Laboratory Technology associate of applied science degree is designed for career-entry. However, some universities may accept some or all of the course work for transfer. Transfer credit is awarded at the discretion of the receiving institution. Students are advised to inquire directly with advisors at the university level regarding expectations for transfer.

Student Grievance & Appeal Procedures

Academic Grievances

An academic grievance is a difference of opinion or dispute between a student and a faculty member about learning activities as they affect the student. This may include grading, instructional procedures, attendance, instructional quality, and situations where the student believes he/she is being treated unfairly.

Non-Academic Grievances

A nonacademic grievance is a difference of opinion or dispute between a student and instructor, administrator, staff member, or another Columbia State Community College student pertaining to the interpretation and/or application of the policies of the College and the Tennessee Board of Regents. In addition to the interpretation and application of policies and procedures, nonacademic grievances shall include all grievances except those pertaining to instruction and classroom management. They may pertain to student governance issues, student activities, arbitrary and capricious management decisions or other concerns that students might present for redress.

Students who wish to file a program-related academic grievance should first discuss the matter with the instructor of the course within 7 working days of notification of the grade. (If the matter is related to a clinical course, the student should first discuss the matter with the clinical instructor and/or clinical coordinator). If the matter is not resolved by this/these discussion(s), the student should discuss the

matter with the program director. The program director will attempt to resolve the grade conflict within 5 working days. If the student is not satisfied, the student should bring the complaint, in writing, to the dean of health sciences within 5 working days. The dean of health sciences will review the case and notify the student of a decision within 5 working days. If the student is still not satisfied; the student may appeal in writing within 5 working days to the Executive Vice President/Provost. The Executive Vice President/Provost will investigate and notify the student in writing of the outcome of the appeal. If the vice-presidential level of appeal does not prove satisfactory to the student, the student may seek review under the College's formal procedures as outlined in the Columbia State Student Handbook. The entire informal procedure should take no longer than 30 working days.

Student grievances in the Columbia State Community College MLT Program will be taken seriously, treated with respect, and be in complete confidence.

The College provides a formal process through which students can appeal the application of certain College and program rules and regulations and the assignment of final grades. Refer to the institutional student handbook (located in the back of the College catalog) for information regarding the formal grade appeal process. The College catalog and student handbook may be accessed through the Columbia State home page at <http://www.columbiastate.edu>. In all cases, it is the intent of the College and the program to assure the fair and equitable treatment of students.

Transcript Request

Graduates of the Columbia State Community College MLT Program will be required to request and authorize an official transcript to be sent from their college to the ASCP/Board of Registry. This transcript should indicate that degree requirements have been satisfied and show the awarding of the Associate Degree in Applied Science in Medical Laboratory Technology.

The Columbia State Community College MLT Program Director may also request transcripts for advisement purposes, ASCP-BOR verification of degree completion, and to satisfy NAACLS accreditation essentials.

Credentialing Exam Study Guides Available:

Columbia State Community College has purchased the following review guides for the students' certification preparation. These guides are issued to the students at no charge. Failure to return the guides following completion of the credential exam(s) will result in a hold placed on the student's account which effects the ability of students to access Records or Official Transcripts. Students sign an agreement form regarding return of study guides and understanding of the consequences for not returning the materials per the agreement.

ASCP Certification Preparation
BOC Study Guide
Clinical Laboratory Certification Examinations, 7th Edition
ISBN 9780891896845

Medical Laboratory Science Review, Fifth Edition, Robert R. Harr
ISBN 978-0-8036-6827-0

Certification of Medical Laboratory Technicians

Graduates of the Columbia State Community College MLT Program will be eligible to test for certification as clinical laboratory professionals by several different national certifying agencies. Once students have completed their Associate of Applied Science in Medical Laboratory Technology and completed graduation requirements, they may contact the following agencies about eligibility for certification testing:

1. American Association of Bioanalysts (AAB)
906 Olive Street, Suite 1200
St. Louis, Missouri 63101-1448
314-241-1445
www.aab.org
2. American Medical Technologists (AMT)
10700 Higgins Road, Suite 150
Rosemont, Illinois 60018
847-823-5169
www.americanmedtech.org
3. American Society for Clinical Pathology (ASCP)
Board of Certification
33 West Monroe St, Suite 1600
Chicago, Illinois 60603
312-541-4999
www.ascp.org

Columbia State Community College MLT Program graduates must have completed all degree

requirements for the Associate of Applied Science in Medical Laboratory Technology in order to be eligible to qualify for taking certification examinations. For current cost of certification exams, please visit the web sites posted above. **Passing an external credentialing exam is NOT a requirement for successful completion of Columbia State Community College's MLT Program nor the awarding of the Associate of Applied Science degree. Program completers are eligible to sit for credentialing exams.**

In the spring semester, the MLT Program Director will provide students with the information concerning application for certification examinations.

Student Information - Release of Information Form

Many times, the Medical Laboratory Technology Program Director and faculty are asked to be used as references, providing academic information to potential student employers. Students/graduates may list the Medical Laboratory Technology Program Director as a reference on any job application. Additionally, employers and recruiters periodically make known jobs that are vacant. Although the Program Director does not provide job placement services for students or graduates he would like to assist in this way in any way possible. The Program Director may wish to provide current MLT Program student names or past student graduate names who the inquirer may want to contact for future employment. However, without the appropriate consent he will be unable to do so. The following consent form is to be filled out and signed by those students who are interested in having academic information released on themselves.

**Columbia State Community College
Medical Laboratory Technology Program**

Authorization for Release of Information

I, _____, hereby authorize the Director and Faculty of the Columbia State Community College MLT Program to release information regarding my student performance in the Columbia State Community College MLT Program to those parties that are interested in employing the said named above. Columbia State Community College is hereby released from all liability that may arise from the release of the information requested.

This authorization may be revoked, but not retroactive to the release of information made in good faith.

Signed _____ Date _____

Address _____

Phone _____

Columbia State Community College MLT Clinical Practicum Student Agreement

After reviewing the contents of the Columbia State Community College MLT Student Handbook & Clinical Manual, this page should be removed by the student, signed, and returned to the Columbia State Community College MLT Program Director.

I have read the contents of the Columbia State Community College MLT Program Student Handbook & Clinical Manual. Policies and expectations have been explained and I have been provided with the opportunity to ask questions and receive additional explanation. I understand the objectives I must meet, the competencies I am to attain, and the obligations I have to myself, the Columbia State Community College MLT Program, the college, and any clinical sites where I may be assigned.

Printed Name _____

Signature _____

Date _____