



**Southeastern**  
COMMUNITY COLLEGE

# **Medical Laboratory Technology**



**Program Manual**  
**2023**

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## INTRODUCTION

Welcome Medical Laboratory Technology (MLT) students! The faculty and clinical instructors are excited each of you have chosen the MLT program.

This manual is intended to provide MLT students with basic information and guidelines used in the classroom, campus lab and clinical setting. The guidelines were designed by the MLT faculty and are in accordance with the Southeastern Community College (SCC) Catalog and Student Handbook. The MLT program manual, SCC College Catalog and Student Handbook should be used by students to have full knowledge of all college policies. The catalog and handbook are provided to SCC students on SCC's website (<http://www.sccnc.edu>). Students are encouraged to review these policy manuals often throughout the program. The program manual is subject to revision at any point throughout the program. Students will be made aware of all revisions as they occur. Students will be given a printed copy of the revised section and will sign a statement of acknowledgement verifying they have receipt of revisions, which will be kept in the students' file.

The information and guidelines in this manual are designed to meet regulations adopted by the North Carolina Community College System (NCCCS), the Southern Association of Colleges and Schools (SACS) and the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). These regulatory agencies prescribe standards which affect faculty, curricula, facilities, resources and students. SCC's MLT program was approved by NCCCS in January 1994. The program is accredited by NAACLS (address: 5600 N. River Road, Suite 720, Chicago, IL, 60018; phone: 773-714-8880).

## DESCRIPTION OF PROGRAM

The purpose of the MLT program is to prepare individuals to perform clinical laboratory procedures in chemistry, hematology, microbiology, and immunohematology that may be used in the maintenance of health and diagnosis/treatment of disease.

The program consists of four semesters of didactic and campus lab study followed by one semester of clinical practice at an affiliate hospital. Courses are designed to promote student progression through the levels of the clinical laboratory toward a level consistent with an entry-level technician. Course descriptions are listed in the SCC College Catalog and Student Handbook and course syllabi. The MLT program maintains a 1:12 faculty to student ratio.

Upon successful completion of the MLT curriculum, the student will graduate with an Associate in Applied Science degree from the college. The student is then eligible to take a national certification exam such as the American Society of Clinical Pathology (ASCP). Graduation from the program is not contingent upon the student's performance on national certification exams. Students are made aware of employment opportunities through program faculty, professional

journals and campus employment resources.

The Medical Laboratory faculty consist of Dawn Williamson, MSHS, MT(ASCP), who is also the program director, and Patricia Wright, MLS(ASCP). Tanya Bellamy, MLT(ASCP), MESH, is the primary phlebotomy instructor, but also assists in the MLT courses. The faculty, along with Kimberly Fine, MSN, Dean of Healthcare and Public Safety, are responsible for program content and effectiveness. Input from the medical laboratory community is received through the Medical Laboratory Advisory Board which meets with faculty annually to advise faculty in the areas of clinical instruction, student evaluation and program policies. The Advisory Board is composed of medical laboratory professionals who practice in the southeastern North Carolina and northeastern South Carolina region.

## **PROGRAM GOALS**

Graduates will develop skills in:

1. Reading and Writing (ENG 002 or BSP 4002, ENG 011)
2. Mathematics and Algebra (MAT 003 or BSP 4003, MAT 010, 043, 052, 071)
3. College success (ACA 122)
4. Expository writing (ENG 111)
5. Writing and Research in the Discipline (ENG 112)
6. Basic anatomy and physiology (BIO 163)
7. Chemistry (CHM 151/152)
8. Introduction to Medical Laboratory Technology (MLT 110)
9. Urinalysis and Body Fluids (MLT 111)
10. Hematology/Hemostasis I (MLT 120)
11. Immunology and Serology (MLT 126)
12. Transfusion Medicine (MLT 127)
13. Professional Issues (MLT 215)
14. Pathophysiology (BIO 271)
15. Clinical Chemistry (MLT 130)
16. Hematology/Hemostasis II (MLT 220)
17. Introduction to Microbiology (MLT 140)
18. Special Clinical Microbiology (MLT 240)
19. Introduction to Ethics (PHI 240)
20. General Psychology (PSY 150)

Graduates will demonstrate competency in:

21. MLT Clinical Practicum (MLT 283)

**To meet and/or exceed NCCCS performance standards, the program will achieve:**

1. An aggregate institutional passing rate of 80% for all first-time takers of licensure/certification examinations,
2. 85% of employers' report being satisfied with preparation of graduates
3. 90% of graduates will be employed within 6 months after graduation
4. An average of 10 students enrolled in the program over a three-year period
5. 85% of the combined respondents will report being satisfied with quality of college's programs and services
6. 90% of program completers will report goal completion
7. 80% of the defined cohort will graduate, be retained, or report goal completion.
8. 90% of the students who enter the final half of the program will complete coursework for graduation.

### **PROGRAM COMPETENCIES**

Upon completion of the program, the student should be able to demonstrate entry level competency in the following areas:

1. Collecting and processing biological specimens for analysis.
2. Performing analytical tests on body fluids, cells and products.
3. Recognizing factors that affect procedures and results, and take appropriate actions within predetermined limits when corrections are indicated.
4. Performing and monitoring quality control within predetermined limits.
5. Performing preventive and corrective maintenance of equipment and instruments or referring to appropriate source for repairs.
6. Applying the principles of safety.
7. Demonstrating professional conduct and interpersonal communication skills with patients, laboratory personnel, other health care professionals and with the public.
8. Recognizing the responsibilities of other laboratory and health care personnel and interacting with them with respect for their jobs and patient care.
9. Applying basic scientific principles in learning new techniques and procedures.
10. Relating laboratory findings to common disease processes.
11. Recognizing and acting upon the need for continuing education as a function of growth and maintenance of professional competence.

## **PROGRAM MISSION STATEMENT**

In keeping with the mission of the college, the MLT program seeks to serve the community by providing didactic, campus laboratory and clinical practicum learning experiences that prepare individuals to analyze blood and body fluid specimens for the generation of laboratory data for health maintenance and the diagnosis of disease. Graduates qualify for entry level employment and to take a national certification exam.

## **PROGRAM OUTCOME MEASURES**

Strategic planning is utilized to provide continuous, systematic assessment of program quality. Strategic planning identifies objectives, activities and outcome measures and are used by program faculty to achieve maximum effectiveness. NAACLS benchmarks are used in MLT program evaluation.

Three outcome measures consistently monitored are graduation rate, certification exam pass rate and employment rate. The graduation rate, as defined by NAACLS, is the percentage of students who graduated based on the number of students who began the final half of the program. During the last 3 years, the graduation rate has been 100%. Since the programs' inception in 1995, most years the certification exam pass rate is 100%. For the last 10 years, the pass rate has been 100%. Most years, 100% of students find jobs within 6 months of graduation. For the last 3 years, 100% of graduates acquired jobs within 6 months.

## **ADMISSION CRITERIA**

Students entering the MLT program in the first fall semester must have at least a GPA of 2.0. Admission is also based on successful completion ("C" grade or higher) or credit of the following prerequisite courses:

1. MLT 110 (within 1 year of program entry)
2. BIO 163 (within 10 years of program entry)
3. ACA 122

Students must successfully test out of, or meet the requirements, for ENG 002 and MAT 003 prior to the start of the program.

Students should complete a MLT program application near the end of the MLT 110, but prior to the deadline. Applications should be submitted to the program director. Students will be notified via email of acceptance prior to the fall semester.

Students in the MLT program should take courses in the sequence specified in the curriculum

master plan. Students are encouraged to complete as many general education courses as possible prior to the fall semester.

Transfer students must successfully complete prerequisite courses and present current program documentation. The transferability of general education courses is determined by the registrar. Students desiring to transfer from another MLT program must have the following requirements:

1. Been enrolled in an equivalent, NAACLS-accredited, MLT program within one year
2. Obtained at least a "C" in all MLT program courses listed on the graduation plan
3. Provide a letter from the previous Program Director verifying the student's good standing in MLT theory, laboratory performance, and clinical practice.

## ESSENTIAL FUNCTIONS

An applicant seeking admission to the nursing programs at Southeastern Community College must meet the Essential Criteria, Functions, and Abilities Standards required for the safe delivery of laboratory results to the public. According to the nature of the work required in laboratory practice and the educational requirements of the MLT and Phlebotomy program curricula, students must be able to meet these standards as defined for admission and successful progression through each of the programs. The standards established are in compliance with the 1990 Americans with Disabilities Act.

The MLT and Phlebotomy profession requires that members of the discipline have the cognitive, sensory, affective, and psychomotor skills necessary to provide safe and effective nursing care to the public. Students and faculty should possess and be able to demonstrate the following Essential Criteria, Functions, and Abilities Standards (examples are not all inclusive):

<b>Standards</b>	<b>Examples of Necessary Abilities (not all inclusive)</b>
Critical thinking ability sufficient for clinical judgment in all healthcare environments, including emergent situations.	Research and analyze data to aid in problem-solving; and, read and comprehend text, numbers and graphs.
Interpersonal abilities sufficient to interact with individuals, families, and groups of a variety of social, emotional, cultural, and intellectual backgrounds.	Establish rapport with healthcare workers, physicians, and colleagues.
Communication abilities sufficient for interaction with others in verbal and written form.	Explain specimen collection procedures and communicate with faculty members, fellow students, staff and other healthcare professionals.
Physical abilities sufficient to stand for long periods of time, move from room to room, and maneuver in small spaces.	Move around in the laboratory and workspaces; able to lift/maneuver at least 50 pounds.

Gross and fine motor abilities sufficient to provide safe and quality laboratory results.

Make fine adjustments to hand-held objects, handle contaminated needles safely and move 20-50 pound instruments from one area to another.

Auditory ability sufficient to monitor and assess health needs.

Monitor alarms, emergency signals, auscultatory sounds, cries for help.

Visual ability sufficient for observation and assessment necessary in the performance of laboratory procedures.

Observe specimen reactions and turbidity, as well as observe patient responses.

Tactile ability sufficient for collecting blood specimens.

Perform palpitation on the client skin.

Cognitive ability to be oriented to time, place and person, organize responsibilities and make decisions

Maintaining a calm and efficient manner in high stress/pressure situations with coworkers, supervisors and other colleagues. Organize and prioritize routine and emergency analyses.

If a student believes that he/she cannot meet one or more of the essential functions without accommodation, the student should make this requirement known to the ADA counselor in Student Services as soon as possible. Students must certify the ability to meet essential functions of the MLT profession by a signed statement in the beginning of the program.

## **DISABILITIES**

SCC complies with the requirements of Americans with Disabilities Act (ADA) of 1990 and Section 504 of the Rehabilitation Act of 1973 and is committed to providing opportunities to qualified persons with disabilities in employment and access to education.

The College will provide reasonable accommodation for documented disabilities of individuals who are eligible to receive or participate in college programs, services, or activities. Disability services are available for on-campus and distance learners. Individuals who require reasonable accommodation for a disability should make this requirement known to disability services as soon as possible.

SCC Student Services provides disability services to assist students in requesting disability-related accommodations for documented physical, learning, and psychological disabilities. For additional information regarding accommodation, contact disability services in A-Building, Room 124 or at 910-788-6327 or [www.sccnc.edu/admissions/disability-services/](http://www.sccnc.edu/admissions/disability-services/).

Students who feel they have been discriminated against due to a disability should see the Student Grievance Process located in the Student Handbook.

## REQUIRED DOCUMENTATION

Specific documentation is required of all MLT students to ensure the safety of students and patients and to satisfy the contractual agreement between the college and the clinical affiliates. This documentation includes current medical records, OSHA training, CPR certification, criminal background, drug screen and malpractice insurance. Freshmen MLT students must submit required documentation by the first fall semester. Sophomore MLT students must update the TB skin test and flu vaccination, purchase malpractice insurance and attend OSHA training in the second fall semester. Some clinical affiliates require an updated physical within one calendar year of attending clinical. A student who does not comply with these requirements cannot meet course objectives, will fail the course, and will be withdrawn from the program.

Current medical records documentation is required to diminish the risk of infectious disease to patients in the clinical area and to MLT students in the campus and clinical laboratories. Medical records consist of immunizations and a physical exam. Immunizations must be current at the time of admission into the program and updated as needed throughout its length. Since health care workers are considered high risk for contracting work-related hepatitis B infection, the Center for Disease Control highly recommends the hepatitis B virus (HBV) vaccine. A student who is pregnant or plans to become pregnant within three months should consult her obstetrician before receiving immunizations. Current immunizations for health care workers defined by the N.C. Department of Public Health and Center for Disease Control must be updated and maintained.

Physical examinations must be current within one calendar year. Students with previous physical, emotional or behavioral problems must provide professional certification that appropriate treatment and/or counseling has taken place to show that the problem has been adequately accommodated. Students who have a change in health status after the physical examination is completed must notify the program director and must obtain a letter from the physician stating the student can resume class, lab, and clinical duties without restriction, before continuing or returning to the program.

Clinical affiliates require a national criminal background search on all students entering clinical. For this reason, all students must obtain a criminal background check. Upon entry into clinical, the clinical affiliates review the results of the search and identify students who may or may not attend clinical at their facility. The affiliates have indicated that a student who has pending criminal charges or a previous criminal conviction of abuse, neglect, fraud, larceny and drug/alcohol abuse may be a threat to patients and therefore ineligible for clinical assignment. If a student is identified as a threat by one affiliate, the program director will try to find other affiliates that are willing to take the student in clinical. If no clinical affiliates are willing to take the student, the student will be dismissed from the program. Readmission in the program would be contingent upon clinical approval.

MLT students are required to obtain malpractice insurance through the college. This fee is added to tuition and fees in each fall semester.

A negative 12–panel drug screen with urine creatinine is required by the hospital affiliates. Therefore, all students must purchase and complete a drug screen before clinical entry. The clinical affiliates review the results of the drug screen and identify students who may or may not attend clinical at their facility. At any time throughout the MLT program, the faculty or clinical affiliates have the right to request an additional random drug screen, if there is a legitimate reason of suspicion. If the student is asked to submit another sample, for any the student must comply. The student is responsible for payment for all drug screens performed.

The clinical affiliates require annual OSHA training for all MLT students. OSHA training occurs at the beginning of each fall semester and is provided by the college. Some hospitals require additional OSHA orientation prior to clinical entry.

The clinical affiliates require current CPR training for all MLT students. Certification of an American Heart Healthcare Provider course is required, and courses are offered by the college.

Admission and continuation in the MLT program are contingent upon the submission of the required documentation on or before the given due date specified by the program director. The documentation includes but is not limited to:

1. A completed health form
2. Proof of an initial 2 step TB test –OR- QuantiFeron Gold blood test, and an updated TB skin test annually thereafter
3. Three doses of DPT vaccine (tetanus/diphtheria within 10 years)
4. Polio vaccine
5. Two MMR vaccines (one if born before 1957)
6. Annual influenza vaccine
7. Three doses of HBV vaccine or proof of immunity through titer (recommended)
8. Varicella injections or proof of immunity through titer
9. Malpractice insurance (included in tuition and fees)
10. OSHA Training (provided by SCC)
11. 12-panel Drug Screen
12. Criminal Background
13. CPR certification through American Heart Association
14. COVID-19 vaccine/booster

Clinical affiliates may request additional requirements that students must comply with. SCC is not mandating the COVID-19 vaccine. The requirement is being mandated by some clinical affiliates. SCC must comply with the policies of clinical affiliates when practicing in their facilities. Students are not allowed to self-select clinical sites for clinical completion. If a student is not compliant with the clinical site, the clinical requirements cannot be completed, and the student will not be able to continue in the MLT program.

## CLINICAL PRACTICUM

MLT students who successfully meet academic and professional program requirements will qualify for assignment to an affiliate hospital for MLT 283 Clinical Practicum. The hospital laboratories have been approved by NAACLS as an appropriate training site for MLT students. The college agrees to remove any student from the affiliate hospital if the student is unacceptable to the hospital for any reason.

The MLT program at SCC is regional, meaning students living in surrounding counties will drive long distances to attend class. MLT hospital affiliates are in several counties in North and South Carolina. Although transportation distance is a factor, clinical assignments are made to provide optimal educational opportunities for students.

Students should be aware of the following:

1. The clinical schedule will not be changed for the student's convenience.
2. Students may be assigned to an affiliate hospital that is not close to the student's residence.
3. Students will not be allowed to perform clinicals at their own place of employment, or with which the student may have a conflict of interest with.
4. Changes in clinical assignments may be made during the Clinical Practicum as deemed necessary by MLT faculty.
5. Students should be aware of driving distances to the hospital affiliates and be prepared to be responsible for reliable transportation to and from clinical assignments at these locations. Lack of transportation is not a valid excuse for missing class or clinical.
6. Clinical sites may require an additional updated physical examination, background check, and/or urine drug screen prior to entering clinical.

The program has 15 student clinical positions available within 10 clinical affiliates. Every effort is made to assign all students to a Clinical Practicum site. If the affiliate hospitals cannot accommodate all students in the class, students will be ranked according to GPA of MLT courses, and the student positions will be filled starting with the top 15 students. The remaining students will remain on an alternate list and will be given priority for clinical assignment as they become available. If the program closed, the college would provide existing students with the same educational and clinical experiences as previous students.

The affiliate hospitals are:

Novant Health Brunswick Medical Center, Supply, NC  
Cape Fear Valley Healthcare System, Fayetteville, NC  
Columbus Regional Healthcare System, Whiteville, NC  
Grand Strand Regional Medical Center, Myrtle Beach, SC  
McLeod Health, Loris, Little River and Dillon, SC  
New Hanover Regional Medical Center, Wilmington, NC  
Southeastern Regional Medical Center, Lumberton, NC  
Wilmington Health Family Medicine, Leland, NC

Clinical experiences are designed to provide students with a working knowledge and entry-level competency of medical laboratory procedures. Under the direction of program faculty and direct supervision of hospital preceptors, the student will perform analytical tasks as he/she rotates through the departments of the clinical laboratory. Once the student gains entry-level competency, repetition is limited to periodic review to maintain proficiency and, with the hospital preceptor's supervision, the student may report results. The clinical affiliates understand that clinical students may not be used to replace the workload of regular staff employees. Daily tasks, such as disinfecting work areas and specimen processing, will also be performed by students throughout the clinical practicum.

## **ATTENDANCE**

Attendance and punctuality are essential parts of the educational process and excellent indicators of a student's dependability and integrity as a future healthcare employee. It is impossible for a student to keep up without consistent attendance. Students should plan for childcare, medical appointments and transportation before each semester begins. Absence should occur only in personal illness, family emergency or other unavoidable situations that prevent the student from attending class, campus lab or clinical. Students are strongly advised to reserve absences for such times as these.

Students are responsible for missed assignments on absent days. It is the student's responsibility to contact the instructor for a make-up assignment. If a student does not make the effort to make-up the missed assignment within 7 days of the absence, a zero grade will be assigned for the missed assignment. A student who is absent on test day must be prepared to take an alternate form of the test upon the next day returning to class.

Habitual tardiness is unprofessional. Three tardies are equivalent to one absent hour. Tardiness greater than 5 minutes on a test day is considered an absence. Attendance is recorded by the instructor for each clinical day, class, and lab. If a student is tardy and arrives in class after the role has been taken, it is the student's responsibility to see the instructor at the end of class to request that the documented absence be changed to a tardy.

A student who exceeds 5% of all scheduled contact hours may be dropped from the course provided that the student had previously received a verbal or written warning notice about excessive absences. The student will receive a "W" grade if dropped before the last lecture test of the course. Exceptions may be made in the event of professionally documented illness or extreme extenuating circumstances.

## EVALUATION SYSTEM

Students are evaluated on the knowledge and skills gained through specific objectives as defined in each course syllabus. Specific evaluation procedures and schedules are listed in the syllabi. Test grades are calculated to the nearest whole number. The course syllabi also contain the formula for calculating the final course grade. A seven-point scale is used to assign letter grades in all MLT courses.

The course faculty will schedule test review after all students have taken it. Test reviews will not be conducted until all students have taken the test. Final examinations are not eligible for test review. The date and time of each test review is scheduled at the instructor's discretion. The instructor will allow students to review a graded test for a limited amount of time.

Test reviews will not be scheduled during regular class hours. Instructors typically hold test reviews immediately following class. Although test reviews are held outside of class hours, students should make every effort to attend. Provisions will be made for any student who contacts the instructor prior to the announced date and has a legitimate reason for not attending the initial test review.

Copying of test questions is not permitted. Test materials may not be taken out of the classroom/lab. All tests and evaluations are part of the student's record at the college.

Laboratory competence is imperative in the clinical laboratory. Campus lab performance is evaluated by the accuracy of the student's written lab report and by the student's technique and professionalism observed by the instructor during lab. The lab report must reflect the student's comprehension, application, and problem-solving ability to receive a passing grade. Deficient laboratory skills are identified by failing lab grades or repeated technical errors on the lab report.

Near the end of MLT courses, faculty performs a Laboratory Skills evaluation. The evaluation reflects the student's ability to meet psychomotor and affective objectives during the semester. The evaluation is graded on the Pass/Need Improvement/Fail scale. A student who receives a three Needs Improvement (N) or 2 Fail (F) evaluation grades during the program will not be allowed to attend clinical assignments, thus fails the course and will be dismissed from the MLT program. A copy of the Laboratory Skills evaluation is documented in Appendix A.

## TESTING PROCEDURE

Since patients' lives depend upon the competency of others, healthcare programs must ensure student competency of professional information and skills. This makes incompetence and cheating a life-or-death issue. The MLT faculty has developed a testing procedure to minimize the occurrence of cheating. A student suspected of cheating will be asked to leave the testing area immediately and will receive a zero as the grade. MLT students will be expected to observe the following when taking a lecture test, performing a graded laboratory exercise or final

examination.

1. Any type of communication is not permitted between classmates during a graded lab/test.
2. Students are not permitted to use the restroom during a graded lab/test.
3. Students are not permitted to have a cell phone or smartwatch out during a graded lab/test.
4. Students may use a non-programmable calculator during a graded lab/test. The calculator must be on the desktop before the test begins. Cell phone calculators may not be used. Students may not borrow calculators during the test.
5. Students must have sufficient #2 pencils and erasers on the desktop before a graded lab/test begins. Students may not reach into bookbags or use any resources during the test.
6. Students must keep lab/test paper and answer sheet covered or turned over when not in use.
7. Students must show all mathematical calculations to get credit for correct answers.
8. LABS: Students must perform graded labs at the lab station assigned by the instructor. Lab stations will be assigned at the beginning and midterm of each semester. Students must complete all lab exercises by the end of lab time.
9. LECTURE TESTS: Students will be spaced apart before the test. Students should be prepared to remain in their seats until he/she finishes the test. Students may not take a break for any reason during the test. Students will have one minute per question unless otherwise directed by instructor.
10. Test review will be accomplished as a class after the test is given. Faculty will allow no more than 2 class meetings for test review at the end of the semester as preparation for the final exam.

### **PROGRAM PROGRESSION**

For students to continue in the MLT program, students must meet specific academic and professional requirements.

#### **Academic Requirements**

1. Successfully pass every BIO, CHM and MLT prefix course with a minimum grade of "C".
2. Successfully pass the laboratory portion and Laboratory Skills evaluation of every MLT course.
3. Meet cognitive, psychomotor, and affective objectives of each MLT curriculum course with a minimum grade of "C".
4. Successfully pass the Technical or Professional Evaluation for every clinical rotation in MLT 283. If a grade of <77 is received for either the Technical or Professional Evaluation in MLT 283, the student fails the specific rotation, and will not be allowed to continue clinical rotations. The student will receive a grade of F for the course.
5. Take MLT courses as sequenced in the curriculum.
5. Meet the 2.0 GPA requirement for graduation.

## Professional Requirements

Students who fail to complete the following will not be allowed to continue in the MLT program.

1. Complete and maintain required health and clinical documentation.
2. Purchase criminal background and drug screen at the beginning of the first fall semester, and prior to clinical entry if required by the clinical site.
3. Purchase malpractice insurance at the beginning of both fall semesters.
4. Attend required OSHA training by both fall semesters.
5. Attend American Heart Healthcare Provider CPR training prior to the second fall semester and maintain certification.
6. Purchase appropriate clinical attire before the first day of clinical and maintain clinical dress guidelines.
7. Submit a negative 12-panel drug screen (with creatinine) to the clinical sites prior to the first clinical day of the clinical practicum.
8. Maintain professional ethics and safety requirements as specified in the MLT Program Manual.

**Computer skills are not required to progress through the program, but students should be aware that basic computer skills and internet capability are necessary for web-enhanced courses.**

## PROFESSIONAL ETHICS

The public and the health care profession rely on the knowledge, honesty, and integrity of trained professionals. Medical Laboratory Technology is a profession which demands careful attention to detail and precision. Medical laboratory professionals must assume full responsibility for the quality of test results and care given to their patients. Employers in the community rely on educators to produce ethical health care graduates. For these reasons, professional ethics is emphasized in every allied health program. Students are introduced to professional ethics on the first class day so they will be well prepared for actual application of those principles on the first day of clinical practicum.

For health care professionals, unethical behavior can result in revocation of license, legal action and/or loss of life. Any form of dishonest, unsafe, or unethical behavior is a serious threat to a professional's career and to the well-being of the people of the community. Unsafe behavior is defined as any deliberate or negligent act of commission or omission which threatens the safety and well-being of the public regardless of actual injury. Whether in the campus or clinical laboratory, students must perform laboratory procedures independently, without any assistance from fellow students, unless otherwise directed by the instructor. Examples of unsafe behavior are plagiarism, falsification of laboratory results, inappropriate infection control technique and destruction or misuse of equipment.

All work turned in for a grade must be performed independently, whether in lecture, campus lab or clinical. Students should be forewarned that evidence of any dishonest behavior may result in

immediate dismissal from the program. Unsafe or unprofessional behavior will result in probation or immediate dismissal from the program. A student who witnesses such behavior is ethically responsible to report it to an instructor immediately.

Socially accepted behavior is expected of students on campus and clinical settings. Students must address faculty, patients and family members by the appropriate title and surname. Students are expected to remain in control of their emotions. The quality and tone of conversation must be pleasant and at an appropriate volume. A display of disruptive, hostile, or aggressive behavior or the use of profane or obscene language is unprofessional and will not be permitted. A student who does not adhere to socially accepted behavior is in violation of professional ethics guidelines and with the SCC Student Code of Conduct and will be asked to leave the activity immediately. Such behavior is grounds for dismissal from the program.

The MLT program adheres to the American Society of Clinical Pathologists' (ASCP) Code of Ethics for laboratory professionals which states:

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

Treat patients and colleagues with respect, care, and thoughtfulness;  
Perform my duties in an accurate, precise, timely and responsible manner;  
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 this knowledge with my colleagues, other members of the health community and the public.

To allow MLT students full knowledge of their professional and ethical responsibilities, the following specific ethical guidelines have been established for the program. A student who violates these guidelines may be placed on probation and/or dismissed from the program.

1. **Honesty.**  
A health care worker is effective only if he/she can be trusted. Dishonesty is a severe offense for a health care worker. It can lead to the death of a patient, immediate job termination and/or a legal suit. If a health care agency discovers that a job applicant has falsified information, the applicant is quickly disqualified. Short-cutting, using sloppy technique and omitting procedures in the laboratory are dishonest, unsafe behaviors. Cheating and plagiarism are also serious academic offenses. Any type of dishonest behavior in the program will lead to dismissal from the program.
2. **Attitude.**  
A positive attitude is essential for any worthwhile goal in life. Students are expected to strive for excellence, be responsible and establish a sense of teamwork with fellow

students. Personal problems can be weighty during an intense program. Students are encouraged to seek counseling for academic or personal problems with the MLT instructors or counselors in Student Services.

3. **Lab preparation, conservation, and clean-up.**  
Students should come to campus lab and clinical with the necessary supplies and prepared to work. Health care agencies follow consistent cost-effective measures. Therefore, students are expected to begin the practice of conserving laboratory supplies whenever possible. In the clinical laboratory, clean-up is the responsibility of each laboratorian at his/her assigned work area. If a student fails to clean his/her work area before leaving, the lab grade will be reduced. Students may not leave the campus lab or clinical area without permission from the instructor.
4. **Food, drinks, and smoking.**  
Food, drinks, and smoking are prohibited in SCC classrooms and, because of the biohazardous nature of the laboratory, are not allowed to be brought into contaminated areas of the campus lab or clinical area. Applying cosmetics or contact lenses are also prohibited in biohazardous areas.
5. **Conduct.**  
Students are expected to conduct themselves in a studious, professional manner as befitting the profession for which they are training. Students must remain in control of their emotions. A disruptive student will be asked to leave class, campus lab or clinical on the first offense. Continued disruptive behavior will be met by dismissal from the program.
6. **Communication.**  
Students are expected to communicate professionally with other students, instructors and patients. The quality and tone of voice must be pleasant and positive. Use of profanity or obscene language is prohibited. Because of security reasons, students are allowed to keep cell phones on vibrate in class and campus labs, but cell phone use is forbidden in the clinical area.
7. **Dress.**  
During class, students may wear usual campus attire. For campus lab, students may wear usual campus attire but must include closed leather shoes. To be maintained in appropriate condition, lab wear must include disposable lab coat and face shield which must be kept within the contaminated area of the campus lab. Only students with prior approval of MLT faculty may use a washable lab coat. Clinical dress is required at the hospital affiliate. The required dress includes royal blue scrub pants, scrub top of any pattern, white, waist-length lab jacket, white leather shoes and nametag. Shoes must be clean and polished. Students must wear clean white socks. Clogs, open-toed shoes and sling-backs are not permitted. Visible tattoos are not permitted.

8. **Personal hygiene.**  
Students are expected to be neat and clean without body odor or halitosis. Fingernails in the laboratory do not meet safety standards if they can be seen when viewed from the palm side of the hand. Acrylic and/or false nails are not permitted in the laboratory. Male students must shave daily. Sideburns, mustaches and beards are permitted provided they are neatly trimmed. Perfume and aftershave are not permitted in the clinical area.
  
9. **Hair.**  
Hair should be clean and neatly styled. Exotic hair styles, such as unnatural colors or mohawk styles, are not acceptable. Styles longer than the shoulders must be pulled back. Bangs must not be in the eyes. Hats and headwear are not permitted in the clinical area.
  
10. **Jewelry.**  
In the laboratory, dangling earrings, bracelets and necklaces are not only unprofessional but also hazardous in the laboratory environment. Students are limited to 2 rings. Rings must have a smooth surface to protect patients from scratches and tearing of gloves. Earrings must be small studs and are limited to one stud per lower earlobe. Visible body piercings (other than earrings) are not permitted.
  
11. **Social Networking.**  
Professionalism and confidentiality practices must extend to the internet. A shared computer drive, an email and a Facebook page are not private spaces. Individual comments in course discussions and on social networking sites such as Facebook and Twitter must not describe events or contain comments or images related to clinical instructors or patients. Written opinions related to faculty and classmates must reflect socially acceptable standards of ethical behavior. Any single act of inflammatory, disrespectful documentation is considered a gross act of unprofessional conduct and may result in dismissal from the program.

## **CONFIDENTIALITY**

Health care professionals are ethically and legally bound to regard the patient's right to privacy as a particularly important part of the job. Modern technology offers many avenues to access personal information. A computer printout or screen, a phone call or a fax could contain personal information about a patient that must be protected. Revealing personal information about a patient (or co-worker) is unethical and illegal since it can result in harm to that individual.

In 1996, the Health Insurance Portability and Accountability Act (HIPAA) was passed into law. It requires the Department of Health and Human Services to maintain national standards for the security and privacy of protected health information (PHI). Patients have the right to receive a copy of the health care facility's privacy practices, request restrictions on their PHI and inspect,

amend and copy their PHI. Health care facilities must have safeguards in place that protect the confidentiality and security of PHI.

Health care facilities have several ways to identify breaches of confidentiality. Hospitals have a hotline that may be used by personnel or the public to report violations. Most health care agencies respond to a breach of confidentiality with immediate termination. Additional penalties can occur if a civil or criminal suit is pursued which can terminate the employee's license to practice, fines or prison.

Confidentiality guidelines must be strictly practiced by all health technologies faculty and students at SCC. Breaching one of these guidelines is a serious behavior and may result in the student's dismissal from the program. The following is an inconclusive list of situations in which confidentiality must be practiced. Any situation in which a student is asked to do something in which he/she feels ethically uncomfortable should be immediately discussed with the MLT faculty.

**These practices must be followed on campus and in the clinical area:**

1. Revealing laboratory test results to unauthorized persons is illegal and is considered practicing medicine. Only a physician or clinical practitioner is authorized to report lab results to patients. All lab results are confidential information and should NEVER be revealed to unauthorized persons, including patients, or discussed outside the clinical facility.
2. Personal information, such as sexual activity, behavior, or family situations, about a patient/student is limited to the student, instructor and health care personnel directly involved in the patient/student's care.
3. Student/instructor conferences should not use names of patients or reveal personal information not related to laboratory procedures.
4. Discussion of a patient/student medical or personal history in any public area, such as a hallway, elevator, cafeteria, or parking lot, is a breach of confidentiality.
5. Discussion of internal privileged information (such as personal laboratory conflicts, doctor/patient relationships, or overheard hospital gossip) is a break in confidentiality. Individual comments in discussions and on social networking sites such as Facebook and Twitter must not describe an event or contain comments or images related to clinical instructors or patients.
6. Reading patient charts or requesting non-laboratory information on any patient is a breach in the patient's right to privacy.
7. Using a patient's name on any written material, except hospital records requiring such a

name, is a breach of a patient's right to privacy.

8. An audiotape, photograph, photocopy, or videotape may not be made of a patient or the patient's medical record. The use of a tablet or cell phone, calls or texting, are not allowed in the clinical areas. With the facilities permission, clinical specimens and laboratory data may be used on campus only if patient identifiers are removed.
9. SCC Medical Laboratory students are not allowed to verbally report or electronically release patient lab results unless authorized by a staff technologist, whose initials must accompany the student's initials as documentation.
10. Some clinical facilities allow students to access the computer system through a student password while others allow access through a clinical instructor standing nearby. Either way, a computer password is meant for one person only. A student may not share his/her password with anyone or ask a clinical instructor for his/her password. Students are responsible for any activity performed on the system.
11. Computer screens must be positioned so that passersby will not see the screen. Never leave a computer logged in.
12. Printers should never be left with printed information. Unneeded computer-generated paperwork must be shredded.
13. Personal information may be faxed or electronically transmitted only if vitally needed for the patient's care. The patient's written authorization must be obtained to release information. The transmitter must call to alert the receiver when a fax or electronic data is about to be transmitted.

## **LABORATORY SAFETY**

Every effort is made to ensure laboratory safety on campus and at clinical. Safety procedures are detailed in the introductory course (MLT 110) and updated in each course by faculty and clinical instructors. A mandatory OSHA workshop is provided for MLT students at the beginning of the freshman and sophomore school years. OSHA procedures are strictly enforced in the campus lab and the hospital to ensure the safety of the student, patient, and fellow laboratorians.

While on campus, a student who becomes injured must report the injury to the instructor. A SCC Occurrence Report must be initiated as soon as possible as a record of the injury. First aid kits and faculty trained in basic first aid procedures are in each SCC building. The county EMS is activated for more serious injuries. If biohazardous materials are involved in the injury, the student is asked to report to his/her family physician to initiate OSHA exposure guidelines.

During clinical, students must report injuries to the clinical instructor and proceed per the

hospital's exposure policy. Again, an SCC Occurrence Report must be completed as soon as possible as documentation for college records.

Students in the program are required to purchase a student accident policy each semester. Student accident claims may be filed with the SCC cashier. However, if the accident insurance does not pay the cost of an injured student's medical bills, the student must assume responsibility for their medical charges incurred at the hospital which includes the cost of exposure testing. For this reason, students are strongly advised to purchase health insurance to cover the cost of medical expenses.

Federal law states that a patient who is injured because of improper actions of a health care worker is entitled to compensation for the injury. Malpractice liability insurance covers legal costs in case a patient takes legal action on a health care worker or the health care agency. Mistakes in the medical laboratory do occur and may or may not be life-threatening. Health care agencies carry malpractice insurance on their employees but not on students. Students are therefore required to purchase malpractice insurance upon registration for both fall semesters.

Safety regulations for the clinical laboratory are mandated by several agencies. When followed, these regulations protect the health and well-being of laboratory workers and the patients. Students must take safety as a personal responsibility since faculty cannot watch every move each student makes during a laboratory exercise. MLT students are expected to follow all laboratory safety regulations in the campus lab and clinical area.

Safety in the clinical laboratory is a constant concern. Students who fail to comply with the safety policies will be dismissed from the MLT program.

**The safety regulations for the laboratory are:**

1. Gloves must be worn when there is a risk of contact with blood, body fluids or other potentially infectious materials.
2. Protective face shields which cover the eyes, nose and mouth must be worn during procedures that are likely to generate droplets/aerosols of blood or body fluids.
3. Protective lab coats must be worn during procedures that are likely to generate splashes of blood, body fluids and chemicals. Lab coats must be long-sleeved, knee-length and buttoned and must be kept in the laboratory available for use.
4. Students who have open cuts or lesions on the hands and arms must completely cover the area with a fluid resistant bandage and glove before proceeding to the laboratory area.
5. Safety needles must be used for specimen collection. Contaminated needles must be covered then disposed in impervious sharps containers. All laboratory sharps, such as needles and glass slides, must be disposed of in sharps containers.

6. Students must follow recommended procedures for transporting specimens, cleaning equipment, and performing lab functions to minimize spills and aerosols.
7. Work surfaces and instruments used in procedures must be decontaminated with disinfectant before leaving the area.
8. Students must correctly wash hands with soap between procedures, before touching uncontaminated articles, after removing gloves and before leaving the lab area.
9. All contaminated trash must be placed in biohazard bags and brought to one central location for sterilization before students leave the lab.
10. Volatile, caustic and toxic chemicals must be used under the fume hood. Procedures that create aerosols must be performed under the hood.
11. Strong chemicals must be carried in the protective bucket.
12. Biohazardous spills must be cleaned up immediately using disinfectant solution. Wet floors must be marked.
13. Mouth pipetting is never allowed. Safety bulbs must be used for pipetting.
14. Smoking, eating, drinking and applying cosmetics and contact lenses are never allowed.
15. Food must be confined to non-testing areas. Students must avoid putting pencils or any other object in their mouths.
16. A microbiology incinerator or flame must never be left unattended.
17. Hair styles must be no longer than the shoulders and must not hang in the face. Individuals with long hair styles must pull hair back in a ponytail. Hats may not be worn.
18. Closed (toe and heel) leather shoes must be worn while working in the lab.
19. Books, purses, and other personal items are not allowed in the analytical area.
20. Accidents must be reported to the instructor immediately.
21. Students are responsible for knowing the location and proper operation of safety equipment including the eye wash station, fire extinguisher, shower, fire cabinet and fume hood.
22. No supplies, equipment, books, chemicals or specimens may be taken out of the laboratory without the instructor's permission.

23. Students can only perform laboratory procedures under the instructor's supervision.

Overall campus security is a top priority and is addressed annually at faculty and student orientation. SCC name badges must be worn on campus. Students must recognize that they should take individual precautions to protect themselves from becoming victims of a crime on campus and at the clinical affiliates. Individual precautions include keeping purses and bookbags with them and walking in well-lit, open areas of the campus. The college cannot be responsible for items left unattended in a classroom. Threats of any kind, inappropriate sexual behavior or suspicious individuals should be called to the campus switchboard immediately. Students should activate EMS with fire, severe injury or active shooter and find the nearest safe room.

SCC's emergency notification system allows students and faculty to keep current with urgent college messages and threatening conditions through cell phone notifications. Students are encouraged to register with this system on the college website. Students are allowed to bring their cell phones to class but must keep the phones on vibrating and put away.

Lab work is fun and exciting, but producing accurate lab results is serious business. It can mean life or death to a patient. The MLT faculty is committed to producing graduates who practice careful, safe laboratory skills. The following recommendations will help students know what faculty expects of them in the campus laboratory.

### **The DOs and DON'Ts of Laboratory Practice**

#### **DO**

1. Check patient's name and ID number before beginning a procedure, every time the tube is handled and before reporting the result.
2. Label all tubes, beakers, flasks, wash bottles, slides and any other container in the lab.
3. Work independently. If you have questions, ask the instructor, not another student.
4. Write legibly. Lab report must be neat.
5. Pace yourself to complete all work within the specified time.
6. Read directions very carefully.
7. Use a pencil to record results unless otherwise directed by the instructor.
8. Use standard, acceptable abbreviations.
9. Listen to verbal directions in the beginning of the lab, making notes prior to testing.
10. Restock workstation after lab when finished.
11. Empty biohazardous trash when finished.

#### **DO NOT**

1. Enter the lab for additional practice without permission from an instructor.
2. Use correction fluid on laboratory paperwork.
3. Walk around the lab looking for specimens or reagents or stand behind a seated student.
4. Enter a refrigerator or incubator without permission from an instructor.
5. Use + or - signs for positive/negative reactions.
6. Leave workstation untidy or without decontaminating counter.

## **GOLDEN RULES FOR RESPONSIBLE LIVING**

1. If you open it, close it.
2. If you turn it on, turn it off.
3. If you unlock it, lock it back.
4. If you borrow it, return it.
5. If you make a mess, clean it up.
6. If you move it, put it back.
7. If you break it, admit it.
8. If it ain't broke, do not fix it.
9. If you cannot fix it, call someone who can.
10. If it belongs to someone else and you want to use it, ask permission.
11. If it is none of your business, do not ask questions.
12. If it brightens someone's day, SAY IT!

## **DISMISSAL AND READMISSION**

A student may be dismissed from the program by the MLT faculty for academic or ethical reasons. The MLT faculty and college administrators make dismissal decisions case-by-case depending on the offense. Students must also be aware that administrative dismissal can occur because of violation of the SCC Student Code of Conduct, as outlined in the SCC Student Handbook.

The MLT faculty follows SCC Nursing and Health Technologies' policies and practices that provide for identification and dismissal of students. Dismissal from the MLT program may result from, but is not limited to, the following reasons:

1. Ethical
  - Cheating, plagiarism, or falsification of information.
  - Breach of confidentiality.
  - A pattern of failure to comply with safety policies.
  - A pattern of unprofessional or socially unacceptable behavior
  - A pattern of careless, inaccurate, unsafe laboratory performance.
  - Willful destruction of college or hospital property.
  - Willful failure to follow an instructor's directions.
  - Failure to meet clinical affiliate requirements.
  - Excessive absence and/or tardies as defined by course syllabi.
  - Impaired thinking is evidenced by an inability to make appropriate judgments and perform laboratory functions.
  - Impaired thinking may be the result of fatigue, anxiety, sleep deprivation, medication use and/or drug use.
  - Physical or emotional health problem which conflicts with safe, professional

laboratory performance and does not respond to appropriate treatment and/or counseling within a reasonable period.

Violation of the SCC Student Code of Conduct

One incident of gross unprofessional conduct (ie, hitting/cursing a patient, instructor, another student or health care professional) or gross unsafe laboratory behavior.

One incident of inflammatory, disrespectful documentation on a social network

## 2. Academic

A grade lower than “C” on a BIO, CHM or MLT curriculum course.

Failure of the laboratory portion of a MLT course.

Two F or three N grades on the Laboratory Skills Evaluation during the program.

Withdrawal from a MLT course.

A grade of <77 for any Technical or Professional Evaluation during MLT 283. The student fails the specific rotation and will not be allowed to continue clinical rotations.

The student will receive a grade of F for the course.

A student dismissed from the program for academic reasons may re-enter program courses the following year if they have a satisfactory campus lab/clinical record. Re-entry must occur in the academic year immediately following the semester in which the student left the program. There can be no more than two entries within a 5-year period.

A student dismissed for ethical reasons is not readmitted unless professional certification is presented that appropriate treatment/counseling/modification has taken place and that the problem(s) have been satisfactorily resolved. There can be no more than two entries within a 5-year period.

A student who seeks justice for what he/she perceives to be any unfair treatment should follow the college grievance procedure by discussing the problem first with the instructor, then with the Dean of Nursing and Health Technologies and finally with Student Services. A student who feels conflict/harassment from another student may discuss the matter with an instructor and should talk with Student Services as a record of the incident. A discussion of student rights, grievance procedure and appeals are detailed in the SCC Student Handbook.

## STUDENT EXPENSES

The following is a list of the approximate costs for two years of the MLT program at SCC. Students should be reminded that figures may vary, and miscellaneous expenses, such as school supplies, meals and commuting costs, should also be considered.

- Full-time, in-state tuition and student fees \$ 6475
- Books (new) 1440
- Disposable lab wear 24
- Non-programmable calculator (include sq. root) 10

• 3 HBV vaccinations	225
• Permanent lab markers	6
• Clinical uniforms	280
• Professional white shoes	70
• CPR	100
• Malpractice insurance	35
• Background and drug screen	<u>127</u>
	\$ 8792

SCC offers a variety of financial aid opportunities, including grants, scholarships, and on-campus jobs. A MLT Scholarship may be granted to a MLT sophomore entering Clinical Practicum. Eligibility depends upon documented need. If necessary, students may apply for educational-related, short-term emergency loans. Interested students should contact the Financial Aid office in the A-building. Another option for financial assistance is a scholarship/loan granted to allied health students by some area hospitals.

Current professional journals, references and study booklets are available for loan in the campus MLT lab to help reduce student costs. All loaned materials must be returned by the day of the final exam each semester. Students will not be allowed to take the final exam until loaned materials are returned.

### **CLUB ACTIVITIES, HONORS, AWARDS**

The MLT Club was organized to financially support the MLT Scholarship and Sophomore pinning ceremony and promote public awareness of the profession. Activities usually include annual fundraisers and the Sophomore pinning ceremony. All present and future MLT are invited to become students who are members of the club. All MLT students are encouraged to be actively involved in class decisions and support class activities.

During the fall semester, MLT Freshmen are asked to vote on the honored position of Class President. Class President acts as the spokesperson for the entire class. The Freshman Class President also serves as MLT Club President and represents the club in the Student Government Association (SGA). The Freshman and Sophomore Class Presidents work with fellow students and MLT faculty to coordinate college-oriented extracurricular class activities. Specific duties as president include coordinating the Sophomore pinning, annual fundraisers and attending SGA meetings.

Students who achieve high academic standards are also honored at SCC. The Honors List and High Honors List are published to honor full time students who earn a GPA of 3.25 and 3.60, respectively. Students who maintain a cumulative program GPA of 3.50 on 12 or more credit

hours per semester are invited to join the Phi Theta Kappa national honor society for junior college students. The SCC Ambassador Program and Student Government Association are two other honorariums worth competing for.

## STUDENT SUCCESS

Health care is exciting! Being an MLT is like being a detective. A MLT uses highly automated instruments and manual skills to gather bits of biological data to solve the mystery of a patient's condition. Health care is an extremely rewarding career.

Health care education can be very challenging. Health care students are expected to learn a massive amount of complex information in a brief time. Programs demand that students be responsible learners. Each course in the curriculum sequence equips the student for the next course, which means that knowledge gained in each course is the basis for new material. Health care instructors also realize the additional challenges that students in our area face. In times past, the "traditional" college student was someone coming to college straight out of high school. Today's typical student is greater than 23 years old, has a family, works a part time job and has personal concerns that add additional stress.

The faculty and staff at SCC are committed to helping students as much as possible through financial services, counseling, tutorial services and providing sound educational training to meet the student's career choice. Many medical laboratory resources are available in the SCC library. A list of specific textbook references is documented in Appendix C. It is the student's responsibility to make an appointment to talk with faculty to discuss his/her progress, grades or any other concerns or problems. Students are encouraged to seek help before a situation becomes a crisis. Freshmen and Sophomore MLT students are encouraged to support each other and build strong bonds. First-year students will find that Sophomores are a valuable source of help and inspiration.

From past students, the MLT faculty has found that there are specific things students can do to keep abreast with their education and reduce stress. In order of importance, recommendations include:

1. Purchase MLT lecture notes at the SCC bookstore.
2. Study notes daily.
3. Use unit objectives and case studies/worksheets as a study guide.
4. Read assigned text before attending class.
5. Eat healthy meals, get 7 hours of sleep each night and exercise daily.
6. Use MLT exam reviews on reserve in the SCC library as study guides:
  - a. Board of Certification Study Guide, ASCP. (5)
  - b. Medical Laboratory Technology Pearls of Wisdom by Polansky, Boston Medical Publishing Co. (2)
  - d. Medical Technology Examination Review and Study Guide by Ciulla, Appleton and Lange. (4)
  - e. Alba's Medical Technology Board Examination Review, Berkley Scientific Publications. (2)
  - f. NCA Review for the Clinical Laboratory Sciences by Beck, Little, Brown and Company. (2)
  - g. Review in Clinical Laboratory Science, American Society for Medical Technology. (1)
  - h. Clinical Laboratory Science Review by Harr, F.A. Davis. (4)
  - i. A Study Guide of Clinical Hematology: theory and practice by Judson, F.A. Davis. (5)
  - j. Outline Review of Medical Technology/Clinical Laboratory Science by Leach, Pearson-PrenticeHall. (3)

## APPENDIX A

### Laboratory Skills Evaluation 4.28.15

Student \_\_\_\_\_ Course \_\_\_\_\_

#### Professional

**Integrity:** consider the student's honesty, ethical values, work ethic, safety and appearance.

<input type="checkbox"/> PASS	<input type="checkbox"/> NEEDS IMPROVEMENT	<input type="checkbox"/> FAIL
Can be trusted to work independently; appears academically prepared for lab; seeks help from the instructor when questions arise; appears committed to ethical values; seated and ready for lab on time; arrives to lab with required materials; appearance is acceptable; safety procedures are followed.	May need reminding about working independently; academic preparation appears missing at times; asks students for assistance in lab; has been tardy or not ready for lab on some occasions; has arrived to lab without required materials; reminder about appearance and/or safety procedures has occurred twice.	Faculty do not feel confident leaving student alone; academic preparation for lab appears minimal; student often needs assistance to complete labs; tardiness occurs frequently; arrives to lab without required materials; student has arrived for lab without appropriate dress; safety reminders have occurred >2 times.

COMMENTS:

**Attitude and Relationship to Others:** consider the student's attitude, adaptability to different personalities, reaction to constructive criticism and emotional stability.

<input type="checkbox"/> PASS	<input type="checkbox"/> NEEDS IMPROVEMENT	<input type="checkbox"/> FAIL
Consistently maintains a pleasant, courteous attitude toward students and faculty; makes an effort to adjust to different personalities; appreciates recommendations for improvement and makes an effort to use recommendations as a learning tool; demonstrates poise and control under pressure; adjusts to changes without complaint.	Tries not to let negative feelings show; may have difficulty relating to some classmates and/or faculty; attitude needs improvement; views constructive criticism with reservations; may become defensive or irritated; recommendations may or may not be followed; frustrations are evident if pressed for time or changes are made; complaint noted.	Student sometimes displays a negative attitude; shows little interest in communicating with classmates and/or faculty; appears unreceptive toward constructive criticism; displays defensive/irritated attitude when critiqued; may blame others for errors; sometimes flustered under pressure; resistant to follow changes.

COMMENTS:

### Technical

**Quality of Work:** consider the student’s report accuracy, laboratory technique, equipment operation, QC and specimen identification.

☐ PASS	☐ NEEDS IMPROVEMENT	☐ FAIL
Work is performed with a high degree of accuracy; errors are minor and few; technique is good; student usually follows instructions as directed; associates theory with practice; operates equipment correctly; QC is correct and documented; specimen ID is always correct.	Quality of work is occasionally deficient; improvements in technique and accuracy are needed; instructions sometimes need repeating; needs help associating theory with practice; needs additional help to operate equipment; QC sometimes missed; 1 specimen ID problem has occurred.	Work often contains an unacceptable percentage of errors or shows evidence of technique errors; instructions and/or procedure are not followed; associating theory with practice is difficult; needs help with equipment; QC errors have be unnoticed or undocumented; >1 specimen misidentified.

COMMENTS:

**Organization and Productivity:** consider the student’s organizational skills, work area, speed and initiative.

☐ PASS	☐ NEEDS IMPROVEMENT	☐ FAIL
Completes assigned lab tasks on or before allotted time; lab time is used wisely and efficiently; workflow is easy to follow; student appears to use provided and/or recommended resources for learning; assists classmates appropriately; work area is clean, organized and stocked.	Speed needs improvement; prompting is occasionally needed to complete assignments on time and keep on task; work area appears disorganized at times; does not usually seek additional learning opportunities; may assist classmates inappropriately; cleanliness and restocking needs reminding.	Assigned tasks are often not completed on time; student does not appear to use resources provided or seek additional help when needed; unwilling to assist classmates or assists inappropriately; cleanliness and restocking is either careless or neglected.

COMMENTS:

Grade \_\_\_\_\_

(≥ 1 N = N grade, ≥ 1 F = F grade)

## APPENDIX B

### Individual Graduation Plan **A45420 – Medical Laboratory Technology** 2022-2023 Catalog

Student Name: \_\_\_\_\_ Student No: \_\_\_\_\_

The Medical Laboratory Technology curriculum prepares individuals to perform clinical laboratory procedures in chemistry, hematology, microbiology, and immunohematology that may be used in the maintenance of health and diagnosis/treatment of disease. Course work emphasizes mathematical and scientific concepts related to specimen collection, laboratory testing and procedures, quality assurance and reporting/recording and interpreting findings involving tissues, blood, and body fluids. Graduates may be eligible to take the examination given by the Board of Certification of the American Society for Clinical Pathology. Employment opportunities include laboratories in hospitals, medical offices, industry, and research facilities.

### Supplemental Requirements

*(Supplemental pre- and corequisite requirements may be waived based on high school grade point average, placement scores, course selection, etc.)*

Year	Semester	Grade	Course #	Course Title	Hrs	Prerequisites	Corequisites
			ENG 002 <i>or</i> BSP 4002	Transition English	0-3		
			MAT 003 <i>or</i> BSP 4003	Transition Math	0-3		
			ENG 011	Writing and Inquiry Support	2		
			MAT-021	Algebra/Trigonometry I Support	2		

### Curriculum Program Requirements

#### 1<sup>st</sup> Semester

Year	Semester	Grade	Course #	Course Title	Hrs	Prerequisites	Corequisites
			ACA 122	College Transfer Success	1*	ENG 002 or BSP 4002	
			BIO 163	Basic Anat & Physiology	5*	ENG 002 or BSP 4002	
			MLT 110	Intro to MLT	3*	MAT 003 or BSP 4003	MAT 010

#### 2<sup>nd</sup> Semester

Year	Semester	Grade	Course #	Course Title	Hrs	Prerequisites	Corequisites
			CHM 151	General Chemistry I	4*	MAT 003 or BSP 4003	MAT 021
			ENG 111	Writing and Inquiry	3*	ENG 002 or BSP 4002	ENG 011
			MLT 111	Urinalysis & Body Fluids	2*	(ENG 002 or BSP 4002), MLT 110 and Enrollment in the Medical Laboratory Technology Program	BIO 163
			MLT 140	Intro to Microbiology	3*	(ENG 002 or BSP 4002), MLT 110 and Current Program Status	BIO 163

### 3<sup>rd</sup> Semester

Year	Semester	Grade	Course #	Course Title	Hrs	Prerequisites	Corequisites
			CHM 152	General Chemistry II	4	CHM 151	
			MLT 120	Hematology/Hemostasis I	4	MLT 110 and Current Program Status	
			MLT 126	Immunology and Serology	2	MLT 110 and Current Program Status	
			MLT 127	Transfusion Medicine	3	MLT 110 and Current Program Status	

### 4<sup>th</sup> Semester

Year	Semester	Grade	Course #	Course Title	Hrs	Prerequisites	Corequisites
			BIO 271	Pathophysiology	3	BIO 163 or BIO 169	
			MLT 215	Professional Issues	1*	MLT 110, MLT 120, MLT 126, MLT 127, MLT 140 and Current Program Status	ACA 122
			PHI 240	Introduction to Ethics	3	ENG 111	
			PSY 150	General Psychology	3*	ENG 002 or BSP 4002	

### 5<sup>th</sup> Semester

Year	Semester	Grade	Course #	Course Title	Hrs	Prerequisites	Corequisites
			ENG 112	Writing/Research in the Disc	3	ENG 111	
			MLT 130	Clinical Chemistry I	4	CHM 151, MLT 120 and Current Program Status	
			MLT 220	Hematology/Hemostasis II	3	MLT 120 and Current Program Status	
			MLT 240	Special Clin Microbiology	3	MLT 111, MLT 140 and Current Program Status	

### Clinical Work Experience

Year	Semester	Grade	Course #	Course Title	Hrs	Prerequisites	Corequisites
			MLT 283	MLT Practicum I	13*	CHM 151, ENG 112, MLT 126, MLT 127, MLT 130, MLT 220, MLT 240 and Current Program Status	ACA 122

\* Hours may be required as indicated by high school grade point average/placement scores increasing the number of semester hours required for program completion.

**TOTAL PROGRAM HOURS REQUIRED = 70**

**Total Supplemental Hours Required \* = —**

**Total Hours Required = —**

## APPENDIX C

### SCC Library Resources January 31, 2018

#### BLOOD BANK

- Blaney: Basic and Applied Concepts of Immunohematology, Mosby, 2008.  
Fung: Technical Manual, AABB, RM172.T43, 2014.  
Harmening: Modern Blood Bank and Transfusion Practices, F.A. Davis, RM172.M62, 2012.  
Hillyer: Blood Banking and Transfusion Medicine, Elsevier, RM171.B583, 2007.  
Quinley: Immunohematology Principles and Practice, Lippincott, RM171.I43, 2010.  
Rudman: Textbook of Blood Banking and Transfusion Medicine, Saunders, RM171.T45, 2005.

#### CHEMISTRY

- Arneson: Clinical Chemistry: a laboratory perspective, F.A. Davis, RB40.C5693, 2007.  
Bishop: Clinical Chemistry: Techniques, Principles and Correlations, Lippincott, RB40.576, 2013.  
Bruns: Fundamentals of Molecular Diagnostics, RB43.7.B8, 2007.  
Burtis: Tietz Fundamentals of Clinical Chemistry and Molecular Diagnostics, Saunders, RB40.F84, 2015.  
Caroli: Analytical Techniques for Clinical Chemistry Methods and Applications, Wiley, 2012.  
Kee: Fluids and Electrolytes with Clinical Applications, Delmar, RC630.K43, 2010.  
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