



MLT PROGRAM HANDBOOK

ASSOCIATE DEGREE MEDICAL LABORATORY TECHNICIAN PROGRAM

HANDBOOK VERSION OF June 2019



FOLSOM LAKE COLLEGE CAREER AND TECHNICAL EDUCATION



Folsom Lake College's MLT Program is accredited by:
National Accrediting Agency for Clinical Laboratory Sciences
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Table of Contents

1.0	About the Program	2
1.1	Brief History of the Program	2
1.2	Program Description	3
1.3	Program Philosophy	3
1.4	Program Mission Statement	4
1.5	Program Learning Outcomes.....	4
2.0	General Information on the MLT Program at Folsom Lake College	5
2.1	Faculty and Staff Roster.....	5
2.2	MLT Faculty Office Hours.....	5
2.3	Campus Phone Numbers	6
3.0	MLT Occupational Competencies and Essential Functions	6
3.1	Essential Functions	7
3.2	<i>MLT Work Styles</i>	8
3.2.1	<i>MLT Workload</i>	9
4.0	General Program Requirements	10
4.1	Tuition and Fees	11
4.1.1	Application Fee	11
4.2.2	Enrollment Fee	11
4.2.3	Other Fees and Expenses	11
4.2	Financial Aid	11
4.3	Program Admission	11
4.3.1	Program Admission Considerations	11
4.3.2	Program Admission Deferment.....	12
4.4	MLT Program Pre-Requisites	12
4.5	MEDTEC Course Sequence.....	13
4.6	FLC General Education Requirements for Graduation	14
4.7	Clinical Placements & Applied Experience Policy	15
4.7.1	Teach Out Plan for Didactic and Practicum Courses	15
4.8	When Extra Help is Needed	16
5.0	Student Medical Insurance, Background Check, and Liability Insurance.....	16
5.1	Personal Health and Accident Insurance	17
5.2.	Use of Student Car for Transportation	17
5.3	Malpractice/Liability Insurance	17
5.4	Health Clearance	17
5.5	Current Address/Email.....	17
5.6	Background Verification	18
5.7	Drug Screening	18
5.8	Immune Screening	18
6.0	Student Accountability	19
6.1	FLC Catalog and Additional Information on Student Rights and Responsibilities	19
6.2	Program Attendance Policies.....	20
6.2.1	Expectations of Students Regarding Absence/Tardiness Notification	20
6.2.2	Student Absence Limits - Didactic (Lecture) Classes.....	20

6.2.3	Student Absence Limits - Practicum (Clinical Rotation) Classes	21
6.3	Tardiness	21
6.4	ADA Request	21
6.5	Problem Resolution	22
7.0	Academic Program Requirements	23
7.1	Academic Requirements in Pre-Requisite and General Education Courses	23
7.2	Academic Requirements in MLT ("MEDTEC") Courses	23
7.3	Grading Policies Applicable to Lecture/Lab Courses	24
7.4	Grading Policies Applicable to Practicum Courses.....	24
7.4.1	Theory Grade	24
7.4.2	Clinical Performance Grade	24
7.4.3	Weekly Clinical Log.....	25
7.4.4	Method of Grading	25
7.5	Non-Academic Program Expectations – "Critical Elements".....	26
7.5.1	Laboratory Safety Standards.....	27
7.5.2	Student Injury or Illness	27
7.5.3	Occupational Hazards	27
7.5.4	Accidents	27
7.5.4.1	On-Campus Injury	28
7.5.4.2	Off-Campus Injury During Clinical Rotation.....	28
7.5.5	Patient Confidentiality and HIPAA Compliance Policy.....	29
7.5.6	Student Service Work Policy	30
7.5.7	Expectations for MLT Trainees Choosing to Work While Training	30
7.6	Student Dress Code	31
7.6.1	Personal Appearance	31
7.6.2	Specific Dress Code/Personal Appearance Guidelines.....	31
7.7	Social Media Policy	33
7.71	Grounds for Program Dismissal.....	33
7.8	Graduation Information and Requirements.....	34
7.8.1	Academic Counseling.....	34
7.8.2	Commencement Ceremony	35
8.0	Program Evaluation.....	35
8.1	Faculty Evaluation	35
8.2	Clinical Instructor (Preceptor), Clinical Facility, & Clinical Course Evaluations	35
8.3	Program Evaluation	35
8.4	Clinical Site Feedback/Evaluation	35
8.5	Post-Graduate Employer Survey.....	36
9.0	Student Re-Entry Information and Procedures	36
9.1	General Considerations	36
9.2	Specific Process and Criteria for Re-Entry	36
9.3	Re-Entry Constraints	38
Appendix 1	MLT Student Rights and Responsibilities	1
1.1	Student Rights and Responsibilities.....	1
1.2	Equal Opportunity, Equity, Discrimination, & Harassment.....	1

Appendix 2 - Implementation of Student Counseling, Quality Improvement, Memo and Educational Agreements.....	1
2.1 Conditions of Use.....	1
2.2 Quality Improvement.....	1
2.2.1 Policy.....	1
2.2.2 Procedure.....	1
2.3 Memo.....	2
2.4 Educational Agreement.....	2
2.5 Distribution.....	2
Appendix 3 - MLT Licensing Requirements Extracted from Title 17 of the California Code of Regulations and Business and Professions Code 1260-1275.....	1
Appendix 4 – FLC MLT Course Descriptions, Student Learning Outcomes, and Behavioral Objectives.....	1
MLT Program Student Signature.....	14

WELCOME FUTURE HEALTHCARE PROFESSIONAL!



OPEN LETTER TO NEW STUDENTS

Congratulations on your acceptance into the Folsom Lake College (FLC) Associate Degree Medical Laboratory Technician (MLT) Program. The faculty and program administration staff welcomes you and wishes you success in the MLT Program and in your college experience.

This handbook is a living document and is designed to acquaint you with important information about the requirements of the FLC MLT Program. It will be helpful to retain and review the information frequently. If you have a question about a process or protocol in the future, you should consult this handbook first.

We hope this handbook will be a useful guide to you as you progress through the MLT Program. Our goal is your successful completion of this training program and ultimately, your licensure as an MLT. If you have questions about the contents of this handbook, please contact the MLT Program Director or the Dean of the MLT Program.

Sincerely,

The Folsom Lake College MLT Faculty

1.0 About the Program

The purpose of this handbook is to familiarize MLT students with the program philosophy, procedures, outcomes, and expectations. The next few pages of this handbook contain a brief history of our program and an overview of what you will be learning in the Folsom Lake College Medical Laboratory Technician (MLT) Program.

1.1 *Brief History of the Program*

In February 2008, in response to community needs, Folsom Lake College, part of the Los Rios Community College District, began the curriculum development process to create an MLT program at the campus. In collaboration with its primary industry partners (UCD Med Center and Catholic Healthcare West [CHW, now Dignity Health]), the curriculum was completed in August 2009. The program prepares students for employment in clinical laboratories, industry, and biotechnology as a Medical Laboratory Technician (MLT), Laboratory Assistant, and/or Research Technician associate. The required curriculum integrates basic concepts, technical procedures, and laboratory exercises prior to the required practical experience (practicum classes) as mandated by the California Department of Public Health (CDPH), consistent with Title 17 of the California Code of Regulations (CCR). Practicum classes are held at affiliate sites (clinical partners) where students receive practical experience in the job duties of the MLT. In 2010, the college was awarded a congressionally-directed federal American Recovery and Reinvestment Act (ARRA) grant. The initial class offerings in MLT were underwritten using ARRA funds. Grant funds were used specifically to support faculty salaries and specialized equipment necessary to establish the MLT program.

In 2010, the college completed and submitted a formal application to CDPH to approve the implementation of the MLT program at the college. The college was granted approval to provide MLT training on June 2, 2011. CDPH approval means that students completing their training at FLC and successfully passing the California state MLT licensing exam may work as MLTs in California. The college also received approval through the National Accrediting Agency of Clinical Laboratory Sciences (NAACLS) in October 2014; which allows graduates to sit for the national licensing exam and, upon receiving a passing score, to find work in other states (subject to fulfilling additional, state-specific, requirements).

The first MLT student cohort was accepted in the Fall 2010 semester, with students completing their pre-requisite courses. That cohort of students took their didactic program requirements in the Spring, Summer and Fall of 2011, followed by practicum courses at partner facilities in the Spring of 2012. Cohort 1 completed all the requirements for the MLT degree in the Spring 2012 semester.

In Spring 2013 the California Community College Chancellor's Office approved FLC's request to offer an Associate of Science degree in MLT to all program completers. In June 2013, the Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges (ACCJC WASC) also granted approval of FLC's MLT program. With these approvals, FLC is now officially authorized to grant to issue AS degrees in MLT to all program completers

1.2 Program Description

The MLT training program prepares students for employment in clinical laboratories, industry, and biotechnology as an MLT, Laboratory Assistant, and/or Research Technician/Associate. The entire program is designed for students to master the competencies, skills, and knowledge required in this profession. This curriculum prepares individuals to perform clinical laboratory procedures in chemistry, urinalysis, hematology, coagulation, microbiology, immunohematology, and immunology. These procedures 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. The program also stresses the importance of professional standards and ethical obligations critical to health care professions. Development of professional competence, personal growth and effective patient care are integrated into each part of the curriculum.

Similar to the training and licensing of Clinical Laboratory Scientists (CLSs) in California, FLC's MLT training program qualifies licensees to work as phlebotomists. In accordance with California regulations, FLC's MLT program offers students 40 hours of didactic coursework in phlebotomy before students begin their clinical rotations. During each student's clinical rotation s/he must obtain at least 100 venipuncture draws and 10 fingerstick draws. If a student already has a valid California CPT-1 license they do not have to repeat the phlebotomy coursework or practicum rotation.

1.3 Program Philosophy

The faculty of the MLT Program at FLC support the broader College mission of providing excellence in teaching and rigorous academic programs for transfer, to enhance employment and to gain career skills, to introduce students to broad areas of human knowledge and understanding that add meaning to their lives and to develop and maintain a collaborative and innovative college environment that promotes personal interaction as the foundation of learning, honors diversity, cultivates sustainability, and encourages civic engagement.

FLC's MLT Program began with the idea that the curriculum would enable completers to be eligible to work in California only. Based on emerging trends in the medical laboratory industry and a desire to produce program completers with multiple career options, the Program has evolved by obtaining national accreditation through NAACLS. As a California community college program, our priority remains producing MLT completers eligible for licensure within our community, but we also realize that our graduates may well relocate to other states in the course of their careers and may see their job responsibilities shift as a result. We also encourage each of our graduates to have the option of moving along a career path toward licensing as a clinical laboratory scientist (CLS), if they so choose. For these reasons, our Program has generally robust pre-requisites and is intended to equip completers to execute any aspect of their profession both within and outside California. Not only will this approach prepare students for possible career advancement later, it will also result in the best possible preparation for a career as an MLT.

As the program has evolved since its inception, the MLT Program has adopted upgraded pre-requisites that will ensure our students are rigorously trained, grounded in broad medical foundation courses, and able to assume work immediately upon graduation in a modern hospital laboratory environment.

Because our students will ultimately take up employment in the allied health industry, many working in on-site hospital labs, the Program takes very seriously its obligation to convey to students the importance of workplace professionalism, confidentiality (in line with the provisions of the Health Insurance Portability & Accountability Act [HIPAA]), teamwork, and communication. Whenever possible, the program seeks to emulate the environment in which students will be working and to hold the students accountable to the same work place standards, procedures, and expectations they will encounter upon entering the work force. Specific guidance for attendance, timeliness, attire, health and safety, and communication are discussed elsewhere in this handbook as well as the consequences if these guidelines are not followed. Students should be aware that these standards will be strictly enforced.

MLT program faculty, administrators and staff are committed to creating a collaborative learning environment. We believe we have designed a training program that will result in completers that are knowledgeable in laboratory concepts, skilled in laboratory processes and protocols, and have the work habits necessary to secure and maintain their employment in the medical laboratory field. Our goal of creating an MLT training program that will serve as the foundation for a life-long career results in a very challenging curriculum that is responsive to industry needs. We seek to involve students in all phases of their own education and we encourage a teaching and learning environment that gives students access to their professors, as appropriate, to clarify concepts, discuss opportunities, and understand what it takes to be a successful medical laboratory professional. As students seeking work in a professional medical laboratory, we expect students to take advantage of their opportunity to interact with practicing professionals (our adjunct faculty and preceptors) to enhance their ability to successfully complete their coursework and to fully understand their career options.

1.4 Program Mission Statement

To produce highly-trained individuals who successfully pass the medical laboratory technician national licensing exam and who will remain committed to all ethical and affective objectives in a healthcare setting, while exhibiting the critical core values of accountability, dedication, work ethic, and trust.

1.5 Program Learning Outcomes

Upon completion of this program, students will be able to:

- pass the nationally recognized certification examination.
- apply appropriate quality control procedures and recognize and interpret erroneous results for any applicable medium-complexity laboratory testing process.
- describe the principles, the clinical significance, and critical values of applicable medium-complexity clinical laboratory test results.
- demonstrate safe use and disposal of bio-hazardous materials, and the proper methods of specimen preparation.
- assess sample quality and cite any pre-analytical variables in testing.
- demonstrate successful venipunctures and skin punctures on patients from a variety of age groups with a variety of medical conditions.
- exhibit professional and committed delivery of excellent health care.

2.0 General Information on the MLT Program at Folsom Lake College

2.1 Faculty and Staff Roster

<u>Faculty/Staff Name</u>	<u>Telephone Extension</u>	<u>Email Address</u>
<u>MLT Director</u>		
Jason Pedro CLS License # MTA41603	530/642-5639	PedroJ@flc.losrios.edu
<u>MLT Instructors:</u>		
Pouri Pourvatan CLS License # MTA39361		PourvaP@flc.losrios.edu
Masoumeh (Marzie) Taghavi Semnani CLS License# MTA37197		SemnanM@flc.losrios.edu
Natalie Cherok-Fenner CLS License# MTA28189		CherokN@flc.losrios.edu
Windy Miller CLS License # MTA45028		MillerW@flc.losrios.edu
<u>Laboratory Staff/Administrative Staff</u>		
Kim Zwerenz Laboratory Technician	530/642-5669	Zwerenk@flc.losrios.edu
Vicky Maryatt Dean, MLT Program	916/608-6925	MaryatV@flc.losrios.edu

2.2 MLT Faculty Office Hours

MLT faculty members have designated office hours which promote the opportunity for student involvement with the faculty and provide an avenue for students to ask questions. These hours are announced by faculty and included within course syllabi at the beginning of each semester. If a student is unable to meet with a faculty member during their posted office hours, special arrangements can be made to meet specific needs; contact the individual faculty member to request a special appointment.

2.3 Campus Phone Numbers

Unless otherwise noted, all numbers listed are for offices located at the El Dorado Center of Folsom Lake College; to reach EDC phone numbers from off-campus locations, dial the area code (530) and prefix (642)

MLT Program Specific Phone Numbers

MLT Program Office.....	5682
EDC Science Laboratory Prep Office.....	5669
EDC Computer Lab.....	5689
EDC Learning Center (Library)	5695
EDC Dean's Office.....	5615
EDC Dean's Assistant's Office.....	5682

Student Services

Admissions and Records.....	5644
Counseling.....	5645
Disabled Students Services & Programs (DSP&S).....	5630
English Center.....	5686
Extended Opportunity Programs & Services (EOP&S)...	5648
Financial Aid.....	5651
Student Life.....	5639
Tutoring.....	5636
Work Experience.....	(916)608-6552

Other EDC Campus Offices

Administration Offices.....	5680
Bookstore.....	5656
College Police.....	2221
Site Supervisor's Office.....	5716

3.0 MLT Occupational Competencies and Essential Functions

In December 2007, MLT became a licensed occupation in California. The role of the MLT is to perform routine laboratory analyses conducted as part of the detection, monitoring, diagnosis, and treatment of disease up to moderate-complexity. With increasing reliance on computer technology, the role of the MLT has become less hands-on and more analytical. The MLT is generally a mid-level position in a modern medical laboratory, placing somewhere on the organizational hierarchy between the entry-level "laboratory assistant" and the Bachelor's-degree-level CLS.

To avoid confusion, Table 1 lists the three occupations referred to above and the titles used in California and in other states.

Table 1. Common Job Titles Used for Clinical Laboratory Occupations and Titles Used in California

Occupation Title Used in California	Other Job Titles Used Nationally	Education Level/License in California
Phlebotomist (CPT-1)	Laboratory Assistant or Phlebotomist (blood drawing, venipuncture)	High School Graduate, plus certificate
Medical Laboratory Technician (MLT)	Clinical Laboratory Technician (CLT) Clinical and Medical Laboratory Technician (used by Bureau of Labor Statistics)	Associate Degree, plus license
Clinical Laboratory Scientist (CLS)	Medical Technologist (MT) Clinical and Medical Laboratory Technologist (used by Bureau of Labor Statistics)	Bachelor's Degree, plus license

From: Environmental Scan, Medical Laboratory Technician, Bay Region, Center of Excellence, Greater Silicon Valley Region, West Valley College, Saratoga, California, May 2009

3.1 Essential Functions

Medical laboratory technician students must have abilities and skills as follows:

Essential Observational Requirements for the MLT student. The student must be able to:

- Characterize the color, odor, clarity, and viscosity of biological specimens, reagents, or chemical reactions.
- Utilize a clinical grade binocular microscope to discriminate among fine structural and color (hue, shading, and intensity) differences of microscopic specimens.
- Read and comprehend text, numbers, and graphs displayed in print and in electronic format.

Essential Movement Requirements for the MLT student. The student must be able to:

- Move freely and safely about a laboratory.
- Reach laboratory benchtops and shelves, patients lying in hospital beds or patients seated in specimen collection furniture.
- Perform moderately taxing continuous physical work, often requiring prolonged sitting or standing, over several hours.
- Safely utilize phlebotomy and culture acquisition equipment to collect appropriate laboratory specimens from patients.
- Properly utilize other laboratory equipment (i.e. pipettes, inoculating loops, test tubes, etc.) and adjust instruments to perform laboratory procedures.
- Use a computer and/or an electronic keyboard to operate, calibrate, and evaluate laboratory instruments and transmit laboratory information.

Essential Communication Requirements for the MLT student. The student must be able to:

- Communicate effectively and sensitively, both orally and in writing, with patients and all members of the healthcare team
- Read and comprehend written material in order to correctly and independently perform laboratory test procedures.

Essential Cognitive Requirements for the MLT student. The student must:

- Possess the following intellectual competencies: comprehension, measurement, mathematical calculation, reasoning, integration, analysis, comparison, self-expression, and constructive criticism.
- Possess sufficient judgment and reasoning skills to recognize and correct errors as they occur.

Essential Behavioral Requirements for the MLT student. The student must be able to:

- Manage the use of time and systematize actions in order to complete professional and technical tasks within realistic constraints.
- Possess the emotional health necessary to effectively employ intellect and exercise appropriate judgment.
- Provide professional and technical services, and maintain focus, while experiencing the stresses of task-related uncertainty (i.e. ambiguous test ordering, emergent demands—"stat" test orders, distracting environment—high noise levels, crowding, complex visual stimuli).
- Recognize potentially hazardous materials, equipment, and situations and proceed safely in order to minimize risk of injury to self, patients, and coworkers; includes the use personal protective equipment (PPE) and best practices.
- Adapt to working with unpleasant biological samples.
- Support and promote the activities of fellow students and health care professionals. Such behavior fosters a team approach to learning, task completion, problem solving, and patient care.
- Be honest, compassionate, ethical, and responsible. The student must be forthright about errors or uncertainty and be able to critically evaluate her or his own performance, accept constructive criticism, and look for ways to improve.

Reasonable accommodations for persons with documented disabilities will be considered on an individual basis, but a candidate must be able to perform in an independent manner. There will be no discrimination in the selection of program participants based on race, creed, color, gender, age, marital status, national origin, or physical or mental disability, providing mandatory standards can be met.

3.2 *MLT Work Styles*

In addition, practicing MLTs must have the following qualities:

- **Attention to Detail** – The profession requires being careful about detail and thorough in completing work tasks.
- **Integrity** – The profession requires being honest and ethical.
- **Dependability** – The profession requires being reliable, responsible, and dependable, and fulfilling obligations.
- **Stress Tolerance** – The profession requires accepting criticism and dealing calmly and effectively with high stress situations.
- **Self-Control** – The profession requires maintaining composure, keeping emotions in check, controlling anger, and avoiding aggressive behavior, even in very difficult situations.
- **Concern for Others** – The profession requires being sensitive to others' needs and feelings and being understanding and helpful on the job.
- **Initiative** – The profession requires a willingness to take on responsibilities and challenges.
- **Achievement/Effort** – The Profession requires establishing and maintaining personally challenging achievement goals and exerting effort toward mastering tasks.
- **Persistence** – The profession requires persistence in the face of obstacles.

3.2.1 MLT Workload

Waived, Moderate, and High Complexity Testing

Clinical Laboratory Improvement Amendments (CLIA) of 1988 was enacted by Congress to ensure that clinical laboratories perform tests consistently, validly, and reliably by regulating laboratory facilities, levels of personnel and standards for quality testing. All laboratories that perform human testing, no matter which industry they are in, must be CLIA certified. In California labs must also be licensed by the CDPH, Laboratory Field Services (LFS).

For each laboratory test, its complexity to produce valid and reliable results has been categorized by the Centers for Disease Control and Prevention under three main complexity categories: Waived, Moderate Complexity, and High Complexity. Each category specifies the knowledge and training required for personnel to perform the test, the requirements for accuracy in reporting results and quality control procedures, as well as director or supervising personnel required. Test complexity limits the scope of practice of laboratory personnel. MLTs are eligible to perform “Waived” complexity tests without direct supervision and perform “Moderate” complexity tests under the supervision of a CLS. Table 2 shows the three complexity categories and the licensed laboratory professionals eligible to perform the test.

Table 2: CLIA-Approved Tests with Corresponding Limitations for Laboratory Professionals in California

Clinical Laboratory Scientist		
Medical Laboratory Technician		Clinical Laboratory Scientist, Specialized CLS or Master’s & Doctoral-Level Scientist
Waived Complexity Test	Moderate Complexity Test	High Complexity Test
<p>Simple, accurate tests performed according to the test manufacturer approved by the FDA and pose little risk of harm if performed incorrectly. Performed using a test kit, compact or hand-held device.</p> <p>Types of Tests: Cholesterol, glucose, pregnancy and other tests approved for home use. Performed by personnel with limited experience/training</p>	<p>Approximately 805 recognized medical lab tests are moderately complex. Most tests are performed on automated analyzers that are easy to use. Technology provides consistency and standardization. Testing can also be performed using a microscope under this complexity.</p> <p>Types of Tests: Hematology, Immunology, Routine Chemistry & Toxicology, Microbiology, & Immunohematology. If performed by an MLT, test must be supervised by a CLS</p> <p><i>*Note: At the time of this handbook, the State of California does not permit MLTs to perform Microscopy in California laboratories.</i></p>	<p>Test requires more stringent quality control standards and testers need to employ critical judgment and interpretation to perform the test.</p> <p>Types of Tests: Commercially available genetics testing, new drug clinical trials, employee drug testing, forensic tests. Performed by CLS or other sub-specialty or Master’s and Doctorate-level biologists, chemists, and microbiologists.</p>

Typical tasks performed by an MLT include:

- Perform tests and examinations classified as “Waived” or “Moderate” complexity by the Center for Disease Control and Prevention in the specialties of chemistry, including routine chemistry, urinalysis, endocrinology and toxicology; hematology including coagulation; microbiology, including bacteriology, mycobacteriology, mycology, parasitology and virology; and immunology, including syphilis serology and general immunology, with the exception of those moderate complexity tests requiring microscopy, or in the specialty of immunohematology.
- Perform phlebotomy, but shall not perform skin tests for specific diseases.
- Perform tests and examinations under the supervision of a licensed physician and surgeon, or a doctoral scientist, clinical laboratory bioanalyst, clinical laboratory scientist, or clinical laboratory specialist.
- Report test results and perform phlebotomy only after competency has been documented by the laboratory director.
- Supervise Limited Phlebotomy Technicians or Certified Phlebotomy Technicians.



4.0 General Program Requirements

4.1 *Tuition and Fees*

4.1.1 Application Fee

There is no fee for applying to attend Folsom Lake College. Applications are available online during the open application period. [Apply to the MLT Program](#)

4.2.2 Enrollment Fee

Enrollment fees, or tuition, are assessed of all students, including nonresidents. The current enrollment fee is \$46.00 per unit for residents (tuition fees are subject to change). The current tuition rate and additional fee information, including refund policy can be accessed at: <https://www.flc.losrios.edu/admissions/cost-of-attendance>

4.2.3 Other Fees and Expenses

Textbooks, instructional supplies, uniforms, living expenses, and cost of transportation to campus and clinical facilities are not included in enrollment fees/tuition. Required textbook information is available from the College bookstore and on your syllabi. Other fees for which MLT students are typically responsible include: liability insurance, background check charges, vaccination and health checkups, as required and professional examination and licensing fees for the MLT license. A breakdown of these costs can be accessed here: <https://www.flc.losrios.edu/academics/medical-technology-department/mlt-cost>

4.2 *Financial Aid*

There is no stipend given to students at any time during the MLT Program. However, waiver of the enrollment fee is available to students who petition and qualify as recipients of benefits under the Board of Governors (BOG) Fee Waiver program. Other financial aid programs may also be available to some students. For more information, please contact the FLC Financial Aid Office at 916/608-6646 or 530/642-5651.

4.3 *Program Admission*

4.3.1 Program Lottery and Other Considerations

The MLT Program at Folsom Lake College receives many applications and unfortunately we cannot accommodate all applicants. As such, we typically are required to hold a lottery among qualified applicants at the end of the application period to place students into the MLT Program. The lottery is conducted by a third party. Re-applicants are given extra entries into the random lottery corresponding to the number of years they had previously applied. In other words, an applicant who has applied two times will receive two **extra** entries, an applicant who applied three times will receive three **extra** entries, and so forth. This system does not guarantee entry, but gives previous applicants a slightly better chance of acceptance during the next **lottery**

Following the lottery, selected applicants must attend an orientation for the MLT program as a condition for entry. Failure to attend the orientation, or comply with other program requirements presented at orientation, will result in a retraction of the acceptance offer.

Students accepted into the MLT program will be required to successfully pass background, drug, and immune screens through an approved vendor. A valid social security number is required per background check requirements and in order to obtain MLT licensure in the State of California (pursuant to the authority found in section 1224 of the Business and Professions Code and in section 100275 of the Health and Safety Code, and as required by section 17520 of the Family Code, providing the social security number of the applicant is mandatory for MLT licensure).

4.3.2 Program Admission Deferment

Students accepted to the program may defer admission one time. Deferment is allowable only due to extenuating circumstances that prevent the student from starting the program. Examples of such circumstances include, but are not limited to: severe financial hardship or health emergency. Students who request and are granted a deferment must submit an application for the next available cohort to secure their position. Students who decline the subsequent offer of readmission, or fail to submit an application, will be required to apply to the program as a new applicant (i.e., all previous application attempts will be discounted).

4.4 MLT Program Pre-Requisites

The MLT Program Pre-Requisite courses are subject to change. Students are responsible for the pre-requisites set at the time of their admission into the program. Students who are seeking re-admittance into the MLT program will be expected to comply with any updated pre-requisite requirements. All prerequisites must be completed prior to the beginning of the MLT Program.

Table 3. FLC MLT Program Pre-Requisite Courses

DISCIPLINE	CLASS	UNITS
ALLIED HEALTH	AH 110 – Medical Language for Health-Care Providers	3.0
CHEMISTRY	CHEM 400 – General Chemistry (I, majors, w/lab) <i>(pre-reqs in CHEM and MATH apply)</i> & CHEM 401 – General Chemistry (II, majors, w/lab) <i>(pre-reqs in CHEM and MATH apply)</i> OR CHEM 420 – Organic Chemistry (I, majors, w/lab) <i>(pre-reqs in CHEM and MATH apply)</i> & CHEM 421 – Organic Chemistry (II, majors, w/lab) <i>(pre-reqs in CHEM and MATH apply)</i>	10.0
BIOLOGY	BIOL 400 - Principles of Biology (w/ Lab) <i>(pre-reqs in CHEM, MATH, ENGWR and ENGRD apply)</i>	5.0
MATH/STATISTICS	STAT 300 – Introduction to Probability and Statistics) <i>(pre-req in MATH applies)</i> OR PSYC 330 - Introductory Statistics for the Behavioral Sciences	4.0 or 3.0
COMMUNICATIONS	COMM 301 – Intro to Public Speaking or COMM 311 – Argumentation and Debate COMM 321 – Interpersonal Communication or COMM 331 – Group Discussion or COMM 361 – The Communication Experience	3.0
Total Prerequisite Units:		28 or 29

**Students must complete all prerequisite courses prior to the beginning of the program.*

4.5 MEDTEC Course Sequence

The current required MEDTEC courses and the intended offering sequence are listed in Table 4. In particular, students should note the required hours of the practicum courses (MEDTEC 360, 361, 362, and 363) as these hours are mandated by CDPH; any deviation from these required hours will make it impossible for the student to be licensed as an MLT in California.

Table 4. Typical Sequence of MEDTEC Courses

Note that MEDTEC courses are only offered in the semesters indicated below.

For MEDTEC 360, 361, 362, and 363, numbers in parentheses are actual scheduled clinical practicum hours.

Semester	Course	Number	Units	Course Title	Lecture or Lab	Hours Required
Spring	MEDTEC	310	2	Introduction to MLT and Skin Punctures	LEC	27
					LAB	27
	MEDTEC	323	4	Clinical Chemistry	LEC	54
					LAB	54
	MEDTEC	330	4	Hematology	LEC	50
					LAB	66
Summer	MEDTEC	324	2	Urine and Body Fluid Analysis	LEC	20
					LAB	48
Fall	MEDTEC	340	4	Immunology and Immunochemistry	LEC	50
					LAB	66
	MEDTEC	350	4	Clinical Microbiology	LEC	50
					LAB	66
	MEDTEC	311	2	Advanced Phlebotomy Venipuncture Skills	LEC	27
					LAB	27
OT Spring	MEDTEC	312	2	Phlebotomy Practicum	LEC	9
					LAB	81
	MEDTEC	360	4	Chemistry and Urinalysis Practicum	LAB	200 (216)
	MEDTEC	361	4	Hematology and Hemostasis Practicum	LAB	200 (216)
	MEDTEC	362	3	Immunology and Immunochemistry Practicum	LAB	160 (162)
MEDTEC	363	4	Microbiology Practicum	LAB	200 (216)	

Important Notes for Students:

- In order to be considered for a clinical rotation, students must pass all of their core MLT coursework with a grade of “C” (equivalent to 75% of all possible course points) or better **and** have either completed the didactic phlebotomy coursework (MEDTEC 310 and 311) or acquired a CPT-1 phlebotomy license from the State of California.
- Per CDPH guidelines, students completing the phlebotomy coursework **will not be eligible** for a separate CPT-1 phlebotomy licensure as MLT licensure contains within it the ability to perform phlebotomy. Furthermore, students completing the phlebotomy courses (MEDTEC 310, 311, and 312), but who do not complete the entire MLT program, **will not be eligible** for separate CPT-1 licensure, in accordance with CDPH guidelines.

4.6 FLC General Education Requirements for Graduation

As part of the application process, applicants are instructed to meet with an FLC counselor for prerequisite evaluation. Applicants who are selected for the MLT program should continue to meet with their counselor each semester to verify progress toward completion of their training **and** progress toward the AS degree. Students may also want to consult a counselor if specific issues arise in individual classes. It is especially critical that MLT students meet with an FLC counselor the semester before they plan to graduate to verify that all requirements have been met and to learn about the graduation petition process. Note: the MLT Program has no jurisdiction in regard to General Education requirements. The table below indicates the general education requirements for graduation from FLC.

Table 5. FLC General Education Requirements for Graduation

Area/ Discipline	Units Required
Math Graduation Competency	3
English Writing Graduation Competency	3
Humanities	3
American Institutions	3
Social and Behavioral Sciences	3
Ethnic-Multi-cultural Studies	3
Physical Education	1

Important Course and Program Sequencing Considerations:

- Due to the time demands associated with the MLT didactic courses and clinical rotations, students should plan on completing all of their General Education requirements before beginning the MLT coursework. To be clear, taking additional courses alongside MLT coursework is not advised.
- Students should be aware that the clinical rotations require at least 40 hours per week to obtain the minimum number of hours. During this time students are expected to limit their outside activities (work, other courses, etc.) to ensure personal functionality and safety.
- Students must complete all GE requirements in order to obtain the A.S. degree in MLT
- California MLT Licensing requirements are as follows:
 - *Have successfully completed at least 60 semester (90 quarter) units from an accredited college or university. The coursework shall consist of at least 36 semester units of physical and biological sciences with an emphasis on applied clinical science. Coursework shall*

include 6 semester units of chemistry and 6 semester units of biology appropriate for transfer to a baccalaureate program in science, taken prior to, or concurrently with, training or experience.

- Our MLT Program, its prerequisites, and GE requirements will meet the 60 semester units required by the State of California. However, if a student decides not to obtain the A.S. degree in MLT they are responsible for ensuring that they meet the state's minimum requirements.
- In order to obtain MLT licensure students will have to take a State or National certification exam. Neither licensure, nor passing a certification exam, is required to obtain the A.S. degree in MLT; however it is strongly advised that students obtain the A.S. degree.

4.7 Clinical Placements & Applied Experience Policy

Clinical placements will be announced the semester prior to MLT practicum classes. Whenever possible, student preferences for clinical sites are taken into consideration. Due to the scheduling nature of clinical affiliates, it is possible that not all students will be placed into clinical rotations simultaneously. In other words, the start of some students' clinical rotations could be delayed. The delay period will not exceed 5 months.

While unlikely, in the event that a clinical site is suddenly unable to take a student the clinical rotation may be delayed. We will make every effort to ensure students begin the rotation portion of the curriculum in the shortest time possible. During this waiting period, students will still have access to course instructors, training modules, and library services.

Student academic performance is our primary consideration when evaluating student clinical site and timing preferences. Whenever possible, a student's proximity to the clinical site location is also taken into consideration. Unfortunately student clinical placement sites based on preference is not guaranteed.

To summarize: placement of students in the clinical rotations will be determined by the following:

- a. Academic Performance in the MLT Program. Evaluated by average course percent grade across all MEDTEC courses.
- b. Proximity to the clinical affiliate.
- c. Goodness of fit. Much like our students, our clinical sites have unique personalities. As such, each student placement is evaluated by the Program Director to ensure the student will have a positive experience at a given clinical site. In very rare cases the Program Director may elect to assign a student to a different clinical site if serious problems are foreseen.

4.7.1 Teach Out Plan for Didactic and Practicum Courses In the event that a catastrophic event occurs that results in an interruption of the college's ability to operate the MLT Program's main campus, the program will attempt to move to a sister or affiliate campus. Should these campuses also be incapacitated, attempts will be made to accommodate courses at clinical affiliates. In the event that a catastrophic event halts the operation of one or more of the MLT Program's clinical affiliates, steps will be taken to place students at other functioning clinical sites to finish the remainder of their training. In the case of program closure, this will be advertised at least a year in advance and a plan developed to ensure that students currently enrolled in the program are allowed to complete.

4.8 *When Extra Help is Needed*

Students going through an intensive training program, such as the MLT Program, may encounter difficulties or need additional support in several areas. When this occurs, early intervention is essential. FLC offers many support services for students. Examples of such services are below:

<p>Admissions and Records</p> <p>FLC 916/608-6500 EDC 530/642-5644</p>	<p>Assessment/ Orientation</p> <p>FLC 916/608-6573 EDC 530/642-5649</p>	<p>Bookstore</p> <p>FLC 916/608-6565 EDC 530/642-5656</p>	<p>Business Services</p> <p>FLC 916/608-6549</p>
<p>CARE/CalWorks</p> <p>FLC 916/608-6638 EDC 530/642-5648</p>	<p>College Police</p> <p>916/608-6500</p>	<p>Computer Lab</p> <p>FLC 916/608-6702 EDC 530/642-5689</p>	<p>Counseling</p> <p>FLC 916/608-6510 EDC 530/642-5645</p>
<p>Disabled Student Programs & Services</p> <p>FLC 916/608-6611 EDC 530/642-5630</p>	<p>Extended Opportunity Programs & Services</p> <p>FLC 916/608-6560 EDC 530/642-5648</p>	<p>Financial Aid</p> <p>FLC 916/608-6646 EDC 530/642-5651</p>	<p>FLC Reading/Writing Center & EDC English Center</p> <p>FLC 916/608-6517 EDC 530/642-5686</p>
<p>Health & Wellness Services (College Nurse)</p> <p>FLC 916/608-6782</p>	<p>Library</p> <p>FLC 916/608-6613 EDC 530/642-5695</p>	<p>Student Life</p> <p>FLC 916/608-6603 EDC 530/642-5639</p>	<p>Tutoring</p> <p>FLC 916/608-6814 EDC 530/642-5636</p>



5.0 Student Medical Insurance, Background Check, and Liability Insurance

5.1 *Personal Health and Accident Insurance*

Students **must** provide their own health insurance while in the MLT program and in the clinical rotations. Students are not covered by any form of school insurance when in the classroom or the campus lab. Workman's compensation insurance is given during the clinical rotation portion of the program, but does not negate the requirement to maintain personal health insurance **at all times** while in the MLT Program.

Students must also pay their portion of personal liability insurance. Some facilities may also require property damage insurance verification. Please contact the MLT program administrative staff if you have questions about insurance coverage.

5.2 *Use of Student Car for Transportation*

Students must supply their own transportation to and from classes, clinical sites, and for special events, activities, or assignments. Clinical site assignments shall be based on educational criteria and not on a student's ability to carpool or any other transportation considerations.

5.3 *Malpractice/Liability Insurance*

Malpractice/Liability insurance has been mandated by our clinical partners for students in the MLT Program, as it is for students in other allied health training programs. The selected insurance carrier is Mercer Consumer. Students must follow applicable procedures and directions (supplied by MLT Program administrators) to purchase the insurance. Evidence of purchase must be presented by the student to the course instructor when due.

5.4 *Health Requirements*

All incoming students must complete the health clearance as directed and at their own cost. Health requirements are subject to change, and students will be expected to comply immediately with any new requirement. Health information is entered an online vendor which provides students access to their health information documents throughout program duration.

5.5 *Current Address/Email*

Each student is required to provide their current mailing address, email address, and telephone number to the MLT Program office and to their preceptors. At the time of any change in addresses/phone numbers, each student must notify the Program office immediately. All private information is kept confidential.

5.6 Background Verification

Students accepted into the MLT Program and students granted re-entry to the MLT Program must pay for and complete a criminal background check and comply with all applicable hospital security standards to qualify for placement in health care facilities¹. Students who withdraw or are dismissed from the Program or who do not progress through the Program in a continuous sequence must redo their background check upon re-entry to the Program. If, as a result of the background check, a student is found to be ineligible for clinical placement, they will be dismissed from the program as their background makes them unable to complete the mandatory clinical rotations.

5.7 Drug Screening

To minimize risk to patients and co-workers, our partner agencies require that all students placed within their facilities for clinical experiences clear a drug screening test. Students are responsible for the cost of drug screening. Students accepted into the MLT Program must complete a drug screen when due.

Students testing positive on the drug screen will be ineligible for clinical placement and as a result will be dismissed from the as their drug screen makes them unable to complete their mandatory clinical rotations. If a student disputes the drug testing results, s/he should contact the drug testing lab for further information. Disqualified students may apply to re-enter the MLT Program with subsequent student cohorts. Acceptance of a re-entry student dismissed as a result of a failed drug test will be conditioned on clearing all health-related requirements, including the drug screen test.

5.8 Immune Screening

Consistent with employment in a healthcare setting, all students are required to demonstrate immunity (serological testing or proof of adequate vaccination, or current immunization) to several communicable diseases in order to protect patients and staff. These include, but are not limited to:

Measles, Mumps, Rubella
Varicella Zoster
Tetanus, Diphtheria, Pertussis (Tdap)
Hepatitis B (Can be declined with a signed waiver)
Influenza

Students must also demonstrate the absence of Tuberculosis with a Two-Step process PPD, or chest x-ray and survey (if individual has a document PPD response).

FLC Health and Wellness Services 916-608- 6782 can provide information about obtaining these services at a low cost.

¹ MLT Program applicants should be aware that potential allied health employers will be extremely reluctant to offer employment to job applicants with felony or violent misdemeanor offences on their records.

All documentation of immunizations MUST go through the MLT program's current vendor. Information and instructions will be made available to students upon acceptance into the MLT program. All Program-related screening criteria (drug, immune, and background checks) are kept confidential and secured through an online vendor and accessible only to the Program Director. However, a student's assigned clinical site will require the results of drug, immune, and background checks in order to process the student at their facility for clinical rotations. As such, students will be asked to sign an authorization for the Program Director to release the required results on the student's behalf.

6.0 Student Accountability

Primary responsibility for creating a positive learning experience for all participants in the MLT Program lies with Program faculty, administrators and staff (including our clinical partners). That role is taken seriously by all involved. As individuals on track to assume contributing roles in a professional medical lab setting, MLT students admitted to the FLC MLT Program are also expected to take an active role in creating and maintaining an exemplary learning environment. The Program's goals are the same as the students': we seek to produce Program completers that can pass applicable licensing exams, that are sought after by employers, and that possess knowledge, technical skills, and professionalism that meet or exceed employer expectations. As active participants in the process, students are expected to behave with integrity, respect, and collegiality toward classmates, instructors, and staff.

We believe each student is a self-directed individual with unique needs, capabilities, goals, and learning styles. Individual learner differences include age, gender, educational and experiential background, support systems, ethnicity and culture. We believe it is the educator's responsibility to recognize these individual differences and utilize a variety of educational methods to enhance learning.

We also believe that teaching/learning is an interactive and facilitative process which results in observable and measurable behavioral change. Inherent in the teaching/learning process is critical thinking which involves problem solving, decision-making, and creative thinking skills.

6.1 FLC Catalog and Additional Information on Student Rights and Responsibilities

This MLT Student Handbook is a supplement to the FLC Catalog and FLC Website Resources, including the "Student Rights and Responsibilities" section of those documents. As an MLT student at FLC, remember you are also a member of the FLC community. Students are expected to familiarize themselves with this information.

All aspects of the FLC Catalog applicable to general FLC students apply to MLT students. A complete description of applicable College Policies can be viewed online at <https://www.flc.losrios.edu/academics/programs-and-majors/catalog-archive>

6.2 Program Attendance Policies

Attendance at all class sessions (lecture and lab), practicum hours (at off-site locations), and mandatory student meetings or functions is an important component of the MLT Program and absolutely required of all students. Students will be allowed to miss these mandatory sessions only for valid reasons and only if they have provided advance notice. Missing a mandatory session of any kind without advance notice will be considered an unexcused absence. The policies of individual instructors and preceptors may vary (consult your class syllabus), but in general and unless specifically allowed by individual instructors and preceptors, instructors and preceptors will have no obligation to allow students to make up missed assignments, exercises, quizzes, exams, lab practicals or any other graded or evaluated activity as a result of an absence.

Following an absence, it is the student's responsibility to contact the instructor or preceptor on the first day back in class to take an exam or quiz missed. It is the student's responsibility to obtain missed information from lectures.

6.2.1 Expectations of Students Regarding Absence/Tardiness Notification

All students are responsible for, and required to follow, the appropriate reporting procedures for advance notice when late for or absent from a scheduled class, training day, student meeting or other mandatory event. Students are required to provide their instructor, preceptor, or event organizer as much advance notice as possible.

During clinical practicum, in the case of absences that do not involve extenuating circumstances² the student shall notify her/his training supervisor or preceptor of her/his inability to be at the work site for training at least two (2) hours prior to the student's scheduled start time. To comply with this requirement, a student must call and speak either to their supervising CLS (or another CLS training supervisor in the event their trainer is unavailable). Individual instructors or preceptors may have specific notification protocols to be followed; check your class syllabus for these guidelines. CDPH requires that MLT students attend a minimum of 26 weeks, consisting of at least 1040 hours, of training at the appropriate level (refer to section 4.5 of this Handbook).

As part of your practicum orientation, confirm that you understand the notification process your specific instructor/supervisor wants you to follow. Unless specifically stated in your practicum syllabus, an email or phone message is not an acceptable means of notification.

6.2.2 Student Absence Limits - Didactic (Lecture) Classes

In didactic classes, students may not miss more than 6% of the class time for any reason. If a student misses more than 6% of the class hours, the student may be dropped from the course by the instructor. For example in the didactic (lecture) portion of MEDTEC 330 – Hematology, 54 hours of lecture are required by educational code and to meet the requirements of the CDPH. A student missing more than

² Per LRCCD Board of Trustees Regulation R-7252, extenuating circumstances are verified cases of accidents, illnesses, or other circumstances beyond the student's control. Examples of extenuating circumstances would be a car accident or a medical emergency involving the MLT student, a spouse or direct family member.

3.24 hours would have missed more than 6% of the total class hours. Since the lecture portion of this class is held twice each week for approximately 2 hours and 30 minutes, missing even 2 class sessions would be equivalent to missing more than 6% of the class. A student dropped from a course is also dismissed from the MLT Program, since each course must be successfully completed to complete the overall MLT training Program.

6.2.3 Student Absence Limits - Practicum (Clinical Rotation) Classes

During practicum classes (in both phlebotomy and clinical MLT rotations), it is the policy and expectation that students will be at the practicum location on time (or a few minutes early) each and every day they are scheduled to train. Each student is personally responsible to resolve all conditions under her/his control which might prevent her/him from arriving on time and completing training each day it is scheduled. These conditions may include child care issues, transportation, other work commitments, family vacations, medical or dental appointments, etc.

Failure to complete scheduled training hours due either to unexcused or excused absences may result in the Program's inability to certify that students have met the minimum required training hours for a particular rotation. It is the students' responsibility, working in coordination with the preceptor, to make up any missed practicum training time.

6.2.3.1 Unexcused Absences

A student incurring a total of more than one (1) unexcused absence during the practicum courses (all the practicum courses combined) may be dropped from all practicum courses and dismissed from the MLT Program. Note that this **does not mean** the student is "allowed" one unexcused absence during the practicum semester; your goal should be not to miss any practicum hours.

6.2.3.2 Excused Absences

Except under extenuating circumstances, a student incurring more than one (1) excused absence during any single practicum course may be dropped from all practicum courses and dismissed from the MLT Program. Note that this **does not mean** the student is "allowed" one excused absence per practicum course; your goal should be not to miss any practicum hours.

6.3 *Tardiness*

A student is deemed to be tardy if s/he fails to report to class or to their clinical site at the scheduled start time. Two tardy incidents in the absence of extenuating circumstances will trigger a review of the student's progress and possible dismissal from the training program.

6.4 *ADA Request*

The Americans with Disabilities Act and comparable state and local laws require reasonable accommodations for disabilities. Accommodations in the laboratory may take various forms, including workplace adjustments or modifications, which range from making the physical work environment

accessible, providing a flexible schedule or providing assistive equipment (examples: TTY machine for hearing impairments or a computer that enlarges print for vision impairment). Students with disabilities are encouraged to request accommodation when needed. If you desire accommodation, you must contact Disabled Students Programs and Services (DSPS) and notify your instructor and Program Director in writing.

6.5 Problem Resolution

The MLT faculty at FLC want the students to be treated fairly while pursuing studies and participating in College-sponsored activities. If you feel you are having a problem regarding fair or equitable treatment, you are encouraged to review the FLC Student Rights and Responsibilities (Section 6.1 and Appendix 1 of this Handbook). The MLT Program's policies are consistent with these policies.

Students are encouraged to act to resolve their concerns regarding instruction in a timely manner. The process for students to voice concerns pertaining to instruction is as follows:

1. Instructor involved in the concern
2. MLT Program Director
3. Dean of Division
4. Grievance Process (if applicable)



7.0 Academic Program Requirements

7.1 Academic Requirements in Pre-Requisite and General Education Courses

Students whose grade point average (GPA) in non-MLT-Program classes (pre-requisite or general education classes; i.e., those classes with a prefix other than “MEDTEC”) falls below 2.0 after completion of 12 units at FLC will be placed on academic probation and remain on probation until their overall GPA reaches or exceeds 2.0. When notified of probationary status, it is the student’s responsibility to investigate and access which FLC support services (listed in Sections 2.3 and 4.8 of this Handbook) will assist the student to get off academic probation. For guidance and assistance, students are encouraged to contact the MLT Program Director. Progress toward getting off probation is critical to a student’s continued participation in the MLT Program. Dismissal from the MLT Program will occur when a student on academic probation status has a noncumulative GPA below 2.0 in a subsequent semester.

7.2 Academic Requirements in MLT (“MEDTEC”) Courses

MLT students must successfully complete each MEDTEC course in the Program. Successful completion is defined as earning a “C” or better grade in each MEDTEC course. Unless otherwise specified by an instructor, and approved by the Program Director, an overall course percentage of 75% of all total course points is required to earn a “C” grade in MEDTEC courses.

Given the critical nature of attaining a “C” or better grade in each MEDTEC course, each student should constantly be aware of their status in each course they attempt. The course syllabus will describe the grading scheme in each class and students should refer to that as they receive graded materials back from the instructor and calculate their grade-to-date in each class. If you are confused about how to calculate your grade, you should confer with your instructor. If your calculations indicate a progress score of less than 75% in any course, you should consult with your instructor (outside of class hours) to understand why your progress score is less than 75% and what must be done to improve your score by the end of the course.

Midterm grades will be issued only for any full-term classes (this excludes practicum classes). Any student receiving a “D” or “F” grade in any full-term course at the midterm will be issued an Academic Memo, reminding the student of the necessity of earning at least a “C” to continue in the MLT training program and directing the student to available resources that might help the student improve their results in the course. It is the philosophy of the Program that early intervention gives the highest likelihood of student success. An Educational Agreement (see Appendix 2 of this Handbook) will be issued to any student with less than a 75% score going into the final exam.

The necessity of earning at least a “C” in any MEDTEC course cannot be overstated. Failure to do so at the end of any class will result in immediate dismissal from the Program. Do not wait until the last weeks of a class to take action; once your final grade is assigned, the grade is not subject to further discussion. Keep track of your progress and your grade-to-date in every course you attempt and take action early if you see your score slip below 75%.

7.3 Grading Policies Applicable to Lecture/Lab Courses

Students in non-practicum MEDTEC courses are evaluated based on a combination of their lecture (or theory) scores and their laboratory performance. In these courses, only one grade will be assigned for the class, a combined performance grade that includes both lecture and laboratory work. Evaluation in each course may include formal and informal quizzes and exams, research or other papers, group or individual presentations, evaluation of laboratory procedures and protocols, evaluations of laboratory books or records documenting laboratory procedures, evaluation of laboratory results, and/or other learning experiences that may be evaluated and scored. Remember you must earn at least a "C" (75% or more) to remain in the MLT training Program.

The MLT Program uses the grading scale shown in Table 6:

Table 6. Grading Scale for MLT Courses

Percent of Possible Total Points Earned	Assigned Grade
90-100	"A"
80-89	"B"
75-79	"C"
65-74	"D"
Below 65	"F"

7.4 Grading Policies Applicable to Practicum Courses

7.4.1 Theory Grade

Clinical practicum MLT courses will be graded on a combination of theory (generally a review of the conceptual basis for the practicum content) and clinical performance. Students' conceptual understanding will usually be evaluated by exams administered by the preceptor at the clinical location, using questions reflective of concepts previously learned in the corresponding conceptual course and/or questions that are derived from appropriate licensing exams. To receive a passing score in a practicum course, a student must earn at least 75% on the theory (written exam) portion of their grade.

7.4.2 Clinical Performance Grade

Student work in the clinical or laboratory setting is evaluated based on clinical skills on the following scale relative to preceptor expectations: "Exceeds (worth 10 out of 10 points)," "Meets (worth 9 out of 10 points)," "Needs Improvement (7 out of 10)," or "Unsatisfactory" basis. "Unsatisfactory" is typically a result of unacceptable behavior or performance, and will often result in dismissal from the MLT Program. Each course syllabus contains specific clinical evaluation forms with the identified "critical elements." To receive a passing score in a practicum course, a student must earn at least 75% of the total points available for the evaluation of their clinical skills. Students needing to change or improve clinical behaviors will receive counseling from preceptors, the Program Director, or other administrative personnel (see Appendix 2 for counseling procedures). Failure to improve to an average of 75% on clinical skills evaluation by the end of

the practicum course will result in issuance of a "D" or "F" grade in the practicum course and dismissal from the Program.

7.4.3 Weekly Clinical Log

During practicum courses at off-site locations, MLT students will be responsible (in conjunction with their preceptor(s)) for maintaining a weekly log to record their hours and document the skills and activities practiced during that week.

7.4.4 Method of Grading

The evaluative procedure for combining the theory grade and the general and specific clinical performance criteria is described below. More specific information about grading in a particular course will be contained in the introductory materials and/or syllabus given to each student by their instructor, their preceptor, or the MLT Program Director on the first day of class.

1. In order for a student to successfully pass a practicum/course block, the student must earn at least 75% of the possible points in both the practicum competencies ("critical elements" listed in Section 7.5 of this handbook) and the final practicum written examination. If a student fails to get at least 75% of the possible points in the practicum competencies or the final written examination, the student will be assigned either a "D" or an "F" for that practicum/course. Assuming scores of at least 75% on both the practicum competencies and the final written examination, the student's final score will be a weighted arithmetic average of the practicum and exam scores. Final scores will be rounded to the nearest whole number.
2. Unless specifically prohibited by their preceptor, during practicum classes students will be allowed one opportunity to retake a test on which they score below 75%. The test may be retaken at a time and date mutually agreed upon by the student and the preceptor. If a student receives an "Exceeds (10)," or "Meets (9)," rating on clinical performance, but fails to achieve a passing (75%) score on a test and the retake of that test, the student will be assigned a "D" or an "F" for that practicum and will be dismissed from the MLT program.
3. Factors other than a theory grade below "C" that may result in the assignment of a "D" or an "F" in an MLT practicum class:
 - a. Consistent "Needs Improvement (7)" or "Unsatisfactory" clinical performance³ even after a course of counseling as described in Appendix 2 has been implemented;
 - b. Unsafe practice⁴ (could result in immediate dismissal from the MLT program)

³**"Unsatisfactory" Clinical Performance:** Performance is considered unsatisfactory when a student does not possess and exercise that degree of learning, skill, care, behavior, and experience ordinarily possessed and exercised by students at the same level in the program.

⁴**Unsafe practice:** Clinical Performance is considered unsafe when a student's action(s) reflect a substantial departure from that of other students at the same level under similar circumstances and when the student's actions have or could have resulted in harm to self, peers, staff, and/or patients.

- c. Any episode of grossly negligent behavior⁵ (could result in immediate dismissal from the MLT program)
- d. Continual failure to submit assignments or tracking paperwork at the prescribed time;
- e. Excessive absence (excused or unexcused) from assigned practicum (clinical) rotations (refer to Section 6.2 of this Handbook);
- f. Failure in any skill deemed to be a “critical element” of MLT duties and responsibilities (refer to section 7.5 of this Handbook).
- g. Any inappropriate behavior while on a clinical rotation.

7.5 Non-Academic Program Expectations – “Critical Elements”

Like students in many training programs in the allied health field, MLT students are subject to expectations of professionalism and behavior in certain specialized tasks uniquely associated with their future field of endeavor. The MLT student at FLC is expected to satisfactorily perform the following “critical elements” or tasks related to MLT employment:

1. As a trainee, conducts work only under the supervision of an instructor, preceptor, and/or CLS while adhering to the scope of practice for MLTs as delineated in the appropriate sections of the California Code of Regulations, NAACLS guidelines, and the student’s preceptor during scheduled laboratory time.
2. Processes specimens as directed within established time frames and according to established procedures.
3. Collects and reports accurate data derived from tests, other laboratory or hospital staff, medical records and other appropriate sources; documents information accurately, legibly and within appropriate time frames according to hospital and laboratory policy using correct grammar, spelling, abbreviations, and terminology; reviews records as appropriate to ensure accuracy and completeness.
4. Operates instruments according to the procedures and SOPs provided by trainers, follows preventative instrument maintenance including start-up protocols; demonstrates knowledge of calibration, quality control processes and corrective actions; demonstrates knowledge of trouble shooting of the instruments and understands when and how to seek help or contact the vendor; maintains a clean work area, restocks supplies and notifies the appropriate personnel when supplies are low.
5. Recognizes and/or acknowledges when an error or break in technique or when a self-injury occurs and immediately notifies the instructor or preceptor giving an accurate account of event and implementing an appropriate plan of action.
6. Understands safety and compliance policies in the laboratory and adheres to the policies; helps maintain a safe laboratory environment by recognizing/anticipating safety hazards, implementing preventative measures, following OSHA guidelines and hospital policies; safely executes the duties associated with phlebotomy, including specimen draws and sample handling.
7. Follows HIPAA regulations; complies with hospital policies, procedures and protocols, while adhering to client’s rights and an MLT’s legal and ethical responsibilities.

⁵ **Grossly Negligent Behavior:** Performance is considered grossly negligent behavior when a student’s behavior justifies the belief that there has been a conscious disregard for or indifference to the health, safety or welfare to self, peers, staff, or patients.

8. Demonstrates professional behavior: minimal absences and late arrivals in accordance with Handbook guidelines; is reliable; communicates effectively in English with preceptors, other laboratory and hospital staff, FLC instructors and program staff both verbally and in writing; accepts feedback cordially, responds to trainer's feedback in a respectful manner demonstrating positive changes in behavior; demonstrates appropriate interpersonal communication skills, shares information relevant to work; asks and answers questions related to improving work performance; works well with other lab personnel.
9. Demonstrates the integration of theoretical knowledge to support the performance of laboratory skills in a hospital laboratory setting.
10. Assumes responsibility and accountability for their own learning by recognizing and evaluating their abilities and limitations, utilizing instructors and preceptors as a resource for improvement.

7.5.1 Laboratory Safety Standards

Students in FLC's MLT Program will follow all Universal Safety Precautions and CAL OSHA requirements as set forth in the training provided in both the didactic and practicum courses. Each didactic course will provide the applicable safety training. Practicum safety training will take place at the clinical affiliate site as required by the institution.

7.5.2 Student Injury or Illness

Students with casts, splints, or a condition that inhibits movement and interferes with patient, co-worker, or student safety will not be assigned a clinical rotation. Students will be required to take a Program leave of absence until such items inhibiting movement are no longer needed. A physician's clearance will be required upon return to the Program.

In order to protect patients, peers, co-workers and others, you must not report to class or the clinical area if any sign of illness is present. A doctor's clearance may be required before you may return to the clinical area.

7.5.3 Occupational Hazards

Occupational hazards for the field of laboratory medicine (and phlebotomy) may include, but are not limited to: exposure to infectious diseases such as AIDS or hepatitis, exposure to hazardous chemicals or substances, accidental injury (particularly inadvertent needle sticks), exposure to blood-borne pathogens, exposure to radiation and allergic reactions to chemical agents.

7.5.4 Accidents

If you become injured in any way while in attendance at courses/labs on campus or in the clinical areas, your health is of prime importance. Injuries can occur either on-campus in the classroom or laboratory, or off-campus at the clinical rotation facilities. Each scenario has its own procedures to follow, and these are detailed below:

7.5.4.1 On-Campus Injury

If you become injured while on-campus you will be directed to the nearest emergency facility for treatment. While on campus you are not covered by workers compensation and thus all medical costs are the responsibility of the student. As such, it is imperative that you maintain health insurance at all times while in the program. Depending on the severity of the injury, students may elect to be treated at a facility within their insurance network; however it is the program's stance to direct students to the nearest medical center for all injuries. If you are injured on-campus you must notify the **instructor immediately**, and then the **Program Director** within 24 hours. Following treatment you are advised to follow through with your private physician.

7.5.4.2 Off-Campus Injury During Clinical Rotation

If injured during the clinical rotation portion of the program you must complete the steps following this introduction. In the event of an emergency situation you will be treated immediately per your clinical facility's policy and procedure. Once stabilized, you must then follow the steps that follow this introduction. Cost associated with such injuries will be covered through a combination of the Los Rios District Workers Compensation policy and your personal health insurance policy. Again, following treatment for **any injury** you are advised to follow through with your private physician.

If an accident occurs, the following procedures are to be completed:

1. Notify your preceptor and/or lab manager immediately.
2. Immediately contact **Company Nurse** at **1-888-375-9780**. Company nurse will gather information over the phone and help you access appropriate medical treatment. This may result in treatment at an emergency room or referral to an outpatient clinic depending on the severity of the injury.
3. Following immediate treatment, **not to exceed 24 hours**, contact the **Program Director** who will guide you and your clinical facility in the filing of the necessary workers compensation forms.
4. The following forms must be completed by the injured student and returned to the **Program Director** within **one working day** (Note: when completing forms, the student is the "employee" and the clinical facility is the "employer.")
 - a. "Worker's Compensation Claim Form (DWC 1)"
 - b. "Employer's Report of Occupational Injury or Illness"
 - c. "Supervisor's Report of Employee Injury"

*Note: An "Employer's Report of Occupational Injury or Illness" and the "Supervisor's Report of Employee Injury" will be completed and signed by the supervising preceptor or laboratory manager and filed at the FLC campus Business Office within **one working day**. A copy of each of these forms can be found in **Appendix 5**.*

7.5.4.3 Special Risk Situations: Blood-Borne Pathogen Exposures

The three blood-borne pathogens that are considered a risk to healthcare workers are HIV (AIDS virus), Hepatitis B, and Hepatitis C. Accidental exposures can occur at any time during the program, and are typically the result of a needle stick or blood splash to face.

Immediately after a needle stick or exposure:

1. Wash the area with soap and water for at least 5 minutes.
2. When splashes occur to the nose, mouth, or skin, the area should be washed with water for 15 minutes.
3. Eyes should be irrigated with clean water, saline, or sterile irrigates.
4. No scientific evidence indicates that the use of antiseptics for wound care or squeezing the wound will reduce the risk of transmission of HIV. The use of caustic agents such as bleach is not recommended.
5. After applying first aid, if you have not already done so, report the incident immediately to your instructor/preceptor and begin the appropriate treatment process. Prompt reporting is essential (refer to Section 7.5.4 of this Handbook for mandatory reporting timelines).
6. In some cases, HIV post-exposure treatment may be recommended and it should be started as soon as possible-preferably in 1 to 2 hours. This situation is more likely to arise during the clinical rotation portion of the program. As such, it is essential to contact **Company Nurse at 1-888-375-9780** immediately following an exposure for an injury assessment. Typically, treatment for an accidental HIV exposure will occur at the clinical site in accordance with their occupational health exposure policies and procedures.
7. Ensure the exposure is reported to the **Program Director** following immediate treatment, **not to exceed 24 hours**, so they can assist you to complete the necessary forms.

7.5.5 Patient Confidentiality and HIPAA Compliance Policy

Clinical partners must strictly adhere to patient confidentiality guidelines contained in the Health Insurance Portability and Accountability Act (HIPAA). A HIPAA breach is any unauthorized (inappropriate) access, use or disclosure of Patient Health Information (PHI). Health data is classified as PHI if the following apply:

1. The data identifies an individual.
2. The covered entity has reasonable basis to believe that the information can be used to identify the individual.
3. The HIPAA-defined, 18 standard identifiers are not removed from the health information and the remaining health information could be used alone, or in combination, to identify an individual

Specific examples of PHI include the following:

- a. Patient names
- b. Geographic subdivision smaller than a state
- c. Dates including birth date, admission date, discharge date, date of death, and all ages over 89
- d. Telephone numbers
- e. Fax numbers
- f. Electronic mail addresses

- g. Social Security numbers
- h. Medical record numbers
- i. Health plan beneficiary numbers
- j. Account numbers
- k. Certificate/license numbers
- l. Vehicle identifiers and serial numbers, including license plate numbers
- m. Device identifiers and serial numbers
- n. Web Universal Resource Locator (URL)
- o. Biometric identifiers, including finger or voice prints
- p. Full face photographic images and any comparable images
- q. Internet Protocol address numbers
- r. Any other unique identifying number characteristic or code

Examples of HIPAA breaches may include but are not limited to:

1. Discussing PHI in a public place, such as an elevator or the cafeteria
2. Patient paperwork containing PHI that leaves the hospital or clinical site for any reason

Recent legislation can result in personal fines up to \$25,000 per patient. Accordingly, faculty recognizes a HIPAA violation as a serious infraction and student will be placed on written notice immediately upon discovery of the first accidental HIPAA violation. Given the gravity of a HIPAA violation, the student will remain on written notice for the duration of the MLT Program. Any second violation will result in dismissal from the MLT Program regardless of intent. Any Intentional HIPAA violation will result in an automatic dismissal from the program.

7.5.6 Student Service Work Policy

Under no circumstances are students permitted to be utilized as substitute employees to fill gaps in staffing at a clinical affiliate site. The MLT Program's clinical affiliates are aware of this policy; however should a student be requested to perform such substitute duties they are asked to inform the MLT Program Director immediately.

7.5.7 Expectations for MLT Trainees Choosing to Work While Training

The MLT Training Program is demanding and many past students have experienced difficulties balancing training and additional outside work responsibilities and obligations. This is especially true during the clinical practicum portion of our program, where students spend 40 hours per week at one of our clinical affiliates for over five consecutive months. The rotation portion is also supplemented by multiple additional educational enrichment experiences. The following is a summary of the general expectations of a MLT student who chooses to work while in the MLT program:

- All students choosing to work outside training hours are encouraged to recognize the opportunity provided to each student by the Folsom Lake College and its clinical affiliates. The MLT program expects this training opportunity to take precedence over other, outside of the program, job duties/responsibilities.
- No training schedule modifications will be made for any student due to a work/outside activity

schedule conflict.

- Students who are running late, or may be absent, will be held to that Absence and Tardy policies contained within course syllabi and this handbook.
- All students are expected to remain alert and actively participate in both didactic and practicum courses. Working students who are overtired and unable to focus not only hinder their learning experience in the program, but also compromise their safety when working with pathogens, driving a vehicle, etc.
- All students must perform academically similar to their nonworking peers (scoring within 10% of current cohort group test score average).
- If a working student is unable to report to class/clinical partner on time, be engaged in learning (overtired/unable to focus), and/or does not consistently score academically within 10% of fellow students (lower academic performance); the program director will evaluate the trainees performance and reiterate training expectations.

The Folsom Lake College MLT Training Program is committed to a learning environment that promotes student engagement and achievement. All students must actively participate in the training to reach their full potential. The primary focus and outcome measure for the Folsom Lake College MLT program is to train competent entry level MLT Professionals.

7.6 Student Dress Code

Students are expected to purchase and wear the MLT Program's school uniforms during the didactic and practicum courses and comply with all other health professional dress code standards. The fact that you are endeavoring to enter the MLT profession intensifies the conduct standards normally applied to FLC students.

7.6.1 Personal Appearance

Asepsis and comfort are necessary considerations in any clinical setting. Any characteristics of dress or grooming that interfere with any aspect of laboratory protocols, lab QA/QC, or patient care are prohibited. As a result your clothing, lab coat, hair, jewelry, fingernails or any other personal appearance characteristics may have to be modified at the discretion of the preceptor/instructor. Students not meeting appearance standards may be dismissed from the clinical setting to correct deficiencies. Professional attire must be appropriate to the situation.

7.6.2 Specific Dress Code/Personal Appearance Guidelines

The following guidelines are representative of dress code/personal appearance guidelines for FLC MLT students. Other requirements may apply for specific classes or situations. Consult your class instructor or preceptor for more information about their expectations.

1. Hair must be clean and off the collar, secured out of the eyes so that it will not fall forward when the student leans forward, and conservatively styled. Any hair bands or clips must also be conservative.

2. Jewelry must be kept to a minimum. Wedding band and watch with second hand are acceptable. If student has piercings, small post studs are acceptable. Bracelets are not allowed for infection control reasons. Individual variations on jewelry will be dealt with as situations arise based on facility and clinical safety requirements.
3. Well-groomed means:
 - a. Absence of odors of tobacco, perspiration, perfume, etc.
 - b. Comfortable shoes with closed toes and clean laces. No high heeled shoes are allowed in laboratory setting, on and off campus.
 - c. Clothing clean and unwrinkled.
 - d. Clean fingernails, no longer than fingertip length. No nail polish is permitted. No artificial nails are permitted.
 - e. Minimum amount of make-up.
 - f. In clinical settings, students must be professionally dressed, not “casually” dressed.
 - g. MLT Program specific uniforms are required. However, in the rare event that you must attend class without a uniform, the guidelines are as follows: other scrubs, or khakis with a tucked in button up shirt or blouse. No hooded sweatshirts, caps, or hats, no blue denim jeans, stirrup or stretch pants, shorts, No Capri pants, sweats, sleeveless or strapless tops, short crop tops, see-through or otherwise revealing tops, tops which show cleavage or midriffs, pants which show undergarments, short skirts, skirts with high slits, bandannas, sunglasses, high-heeled shoes, bare feet, sandals, clog-type shoes, etc. Suggestive or provocative clothing of any kind is inappropriate in clinical settings. Stockings or visible socks must be worn.
 - h. Closed-toed shoes must be worn at all times
4. Name tags or designated ID must be worn whenever you are in a clinical setting.
5. Individual instructors may have additional dress code rules with which students are required to comply; please check your syllabus or consult your instructor for each class.



7.7 Social Media Policy

The Internet and social media, when used wisely, provide many safe and positive ways to stay in touch with others. However, online social media has also become a host of lesser known ways that healthcare providers may inadvertently disclose Private Healthcare Information (PHI). While the MLT Program values a student's right to self-expression, once a student identifies himself as a Folsom Lake College MLT Student in a social networking profile website, group page, or weblog, or uses the FLC name, logo, photograph or text, everything and anything that student posts or says in that medium can then be seen as a reflection of the FLC MLT Program. As such, the program requires students to observe specific guidelines related to social media:

1. *As a FLC MLT student, you agree to be respectful of the MLT Program, the students, and the faculty in all communications including e-mails, instant messages (IMs), profile, blog, or other Internet sites. You also agree to NOT:*
 - a. *use obscenities, profanity, or vulgar language.*
 - b. *engage in harassment or intimidation.*
 - c. *post comments that are derogatory with regard to any individual's race, gender, religion, sexual orientation, or disability.*
 - d. *use sexually explicit, suggestive, humiliating, or demeaning comments.*
 - e. *post photographs that compromise anyone's privacy or that are used to demean, humiliate, or otherwise embarrass anyone.*
 - f. *post photographs that portray a situation involving use of drugs and/or alcohol.*

2. *As a FLC MLT student you agree not to use a social networking profile, group page, weblog, or other Internet medium to discuss information that is considered Private Healthcare Information (PHI), as defined by the Patient Confidentiality and HIPAA Compliance Policy in section 7.5.5 of the MLT Handbook. You also agree to comply with all local, state, and federal requirements governing the privacy of medical information.*

3. *Once you identify yourself as a FLC MLT student, the general public may see you as an ambassador or spokesperson of Folsom Lake College. Therefore, you should understand that as a condition of your enrollment, you must adhere to the guidelines outlined above. Any violation of the guidelines outlined in this policy may result in disciplinary and/or legal action.*

7.71 Grounds for Program Dismissal

Students may be dismissed from the MLT program for the following reasons:

1. Underachievement - As described above in sections 7.4 and 7.5, any student receiving a final course grade of less than a "C" in a didactic or practicum course will be dismissed from the MLT training program.
2. Excessive absences or tardiness – As described above in sections 6.2 and 6.3 of this Handbook.
3. Unprofessional conduct, such as excessive unexcused absences from either didactic or practicum course, failure to follow program or hospital guidelines, consistent failure to follow directions from an instructor or preceptor, etc.

4. Unsafe or grossly negligent clinical practice. Refer to Section 9.2 of this Handbook for definitions of these terms.
5. More than one (1) HIPAA breach (see section 7.5.5 of this Handbook).
6. Inability of the student to be placed with clinical training sites for training as a result of the student's background/drug screening (see section 5.6 of this Handbook).
7. Dishonest or unethical conduct. Consistent with the Los Rios Community College Board of Trustees policy, a student is subject to disciplinary action and may be suspended or expelled for good cause. Good cause includes, but is not limited to, the following offenses:
 - a. Dishonesty, such as cheating, plagiarism, knowingly furnishing false information to the College or clinical facility.
 - b. Forgery, alteration or misuse of College and clinical facility documents, records or identification.
 - c. Obstruction or disruption of instruction, the administrative process, College activities, community services or other authorized College activities including clinical experience.
 - d. Unauthorized entry to and use of College or clinical facilities.
 - e. Use, possession, distribution, sale, or being under the influence of alcoholic beverages, narcotics or dangerous drugs on College property, clinical facility, or at College-sponsored events.
 - f. Failure to comply with directions of college officials acting in performance of their duties.
 - g. Soliciting or assisting another to do any act which would subject a student to expulsion, suspension, probation, or other discipline pursuant to this policy.
 - h. Knowing possession or use of explosives, dangerous chemicals or deadly weapons on College property, clinical facility's property or at a College function without prior authorization of the College President or designated representative.

7.8 Graduation Information and Requirements

7.8.1 Academic Counseling

All MLT students should meet with an FLC counselor soon after their admission to the program. It is good practice to meet each semester with your counselor to ensure you remain on track to graduate and to discuss any challenges you may be experiencing in the Program.

Admission to the MLT Program is a step toward your goal of working in the medical laboratory field, but the ultimate goal is the successful completion of the Program and graduation. Students should begin to plan early for graduation by meeting with an academic counselor each semester.

During your meeting with an academic counselor, you should discuss the preparation of an education plan or "academic checklist" that will help you track your progress toward an MLT degree. Do not wait until near the end of your academic training to prepare this plan or checklist; too often students discover at the end of their program that some courses are missing from their academic record which will prevent them from graduating. Remember, it is the student's responsibility to ensure all graduation requirements are met. Neither counselors, nor the MLT Program Director has the ability to seek each student out to ensure you've met the graduation requirements.

7.8.2 Commencement Ceremony

Students are reminded that there is a campus commencement ceremony at which the earned associate degree is conferred. Once your eligibility for graduation with the AS degree is confirmed with an academic counselor, eligible MLT students are invited and urged to participate in the College commencement.

8.0 Program Evaluation

Student input regarding their learning experience is vital to maintaining a high quality program. All evaluations are completed in a confidential manner and shared in a way that will not impact student performance in the Program (e.g., instructor evaluations are only shared with the instructor after final course grades are submitted).

8.1 Faculty Evaluation

All full-time faculty are evaluated at least once every three years according to College policy. Student questionnaires are anonymous and the evaluation procedure is carried out by an administrator or their designee only outside of the faculty member's presence. Constructive student input will be used by the instructor to improve the course and the manner in which it is taught.

8.2 Clinical Instructor (Preceptor), Clinical Facility, & Clinical Course Evaluations

Clinical instructor evaluations are completed by students each semester. Most students work with one clinical instructor per course; however in the event that additional clinical instructors are utilized, students have the opportunity to evaluate each instructor separately.

On the same form students evaluate the clinical facility environment and the clinical rotation (course) as a whole. Student questionnaires are anonymous and the evaluation procedure is carried out in the absence of the instructor. Constructive student input will be evaluated by the MLT program director and MLT advisory board committee to improve upon the course, facility, and/or clinical instructors.

8.3 Program Evaluation

At the end of the last semester in the MLT Program, students are given the opportunity to evaluate the entire Program. Compilation and review of those evaluations are performed by the MLT Program Director, who, in consultation with faculty and the program Advisory Board, will recommend program modifications as appropriate.

8.4 Clinical Site Feedback/Evaluation

Clinical sites have the opportunity to give feedback to the MLT Program Director on the MLT program, preparedness of students, etc. at the end of each rotation.

8.5 Post-Graduate Employer Survey

Post-graduate surveys allow the MLT Program Director to receive feedback from employers regarding FLC Program graduates' transition to the MLT role in clinical labs and foster appropriate program changes to ensure our graduates are well prepared for practice. Post-graduate surveys are sent out alongside graduate surveys.

9.0 Student Re-Entry Information and Procedures

If a student elects to withdraw from the MLT Program, or is dismissed as a result of substandard academic or clinical performance, re-entry into the Program will be subject to space availability and the criteria described in this Section. At the time of any voluntary withdrawal, an exit conference with the instructor and the Program Director is required. During the exit conference, the re-entry policy will be reviewed and recommendations for re-entry determined. Copies of the exit conference recommendations will also be placed in the student's folder.

9.1 General Considerations

1. The MLT Program is committed to regularly-enrolled students who have not interrupted their education by dropping, taking a leave of absence, or by not achieving course objectives.
2. The MLT Program is committed to safe, knowledgeable, and professional MLT practice. This commitment has been determined by legal and professional MLT oversight and licensing entities and requires close clinical supervision.
3. The MLT Program is committed to the learner as a unique individual. Therefore, the student's individual learning needs and learning styles are assessed to ensure the student's optimal preparation for success in the Program and the career of an MLT.
4. Re-entry shall be determined by the Program Director with consideration given to the student's readiness to return to the program.
5. There must be space available in the course(s) to which the applicant is requesting re-entry. Re-entry candidates are only considered once all attempts to obtain new candidates have been exhausted.
6. Regardless of circumstances related to and the date of withdrawal, the student's current didactic grade and clinical performance evaluation will be the factors used to determine re-entry status unless otherwise determined by the Program Director.

9.2 Specific Process and Criteria for Re-Entry

1. Any student who withdraws or is dismissed from the MLT Program for any reason and is seeking re-entry to the Program must submit a written request for re-entry to the Program Director along with application materials (such as transcripts of classes taken subsequent to program separation) that will assist the Director in evaluating the student's request. After review of the letter and any relevant materials submitted, the Program Director may contact the student to arrange a meeting to discuss the student's application or request additional information regarding the student's re-entry application.

2. Re-entry shall include a review of the student's prior clinical and didactic status.
3. All potential re-entry students are, at the Program Director's discretion, subject to an assessment of their readiness to return to the Program. The assessment may include testing of theory and clinical competency for material up to the semester proceeding the semester during which the student left the program.
4. A cumulative grade point average of at least 2.0 must be maintained up to re-entering the Program. All transcripts, including any in progress, must be submitted for evaluation of a student's re-entry application.
5. Unless approved by the Program Director, students who seek re-entry must comply with the current cohort's entry criteria. This includes the current version of the MLT Program Handbook, MLT prerequisite courses, etc. In other words, candidates seeking re-entry cannot employ previous entry criteria to the current application window.
6. A student who fails an individual MLT course or leaves the Program "not in good" standing may re-enter FLC's MLT Program only once.
7. A student granted re-entry to the MLT Program may be subject to certain specific requirements. These requirements will be explained in the letter of re-admission received from the MLT Program Director. Examples of stipulations or requirements for re-entry may include, but are not limited to: background verification, drug testing, malpractice insurance payments, attendance at Program or clinical orientations, repetition of specific didactic or practicum courses, etc. Students admitted for re-entry are responsible for all costs associated with these requirements.
8. Students who leave the Program will be categorized as leaving in "good standing" or leaving "not in good standing." Students would be categorized as "not in good standing" at the time of their departure from the Program if they are:
 - a. Receiving any grade less than a "C" in a didactic or practicum course
 - b. On notice for unsatisfactory practicum/clinical performance
 - c. On notice for unsafe practicum/clinical performance
 - d. On notice for grossly negligent practicum/clinical performance. *Students who receive a "not in good standing" status due to gross negligence will NOT be considered for re-entry to the FLC MLT Program.*

The definitions of unsatisfactory, unsafe, or grossly negligent clinical/practicum performance are as follows:

Unsatisfactory: Performance is considered unsatisfactory when a student does not possess and exercise that degree of learning, skill, care, and experience ordinarily possessed and exercised by students at the same level in the program.

Unsafe practice: Performance is considered unsafe when a student's action(s) reflect a substantial departure from that of other students at the same level under similar circumstances and when the student's actions have or could have resulted in harm to the patient.

Grossly Negligent: Performance is considered grossly negligent when a student's behavior justifies the belief that there has been a conscious disregard or indifference of the health, safety or welfare of the patient.

9.3 *Re-Entry Constraints*

If a student left the FLC MLT Program and has met the criteria for re-entry contained in Section 9.2 of this Handbook, priority for re-entry based on available space will be as follows:

1. First priority will be given to students who left the FLC MLT Program in good standing in both theory (didactic) and clinical performance.
2. Second priority will be given to students who left the FLC MLT Program in unsatisfactory standing in either theory or clinical performance. Students in this category will be considered on an individual basis as determined the by the Program Director and faculty of the semester to which students are seeking re-entry. In general, students in unsatisfactory standing will be placed at the bottom of the waitlist and considered once all options are exhausted for obtaining new candidates. Should a spot become available, the re-entry candidate will be required to pass an assessment exam consisting of material up to the time of their dismissal from the program and no more than 30 days from notice of spot availability. Details of this process will be outlined on an individual basis and at the sole discretion of the Program Director.
3. There are no guarantees for re-entry candidates. To reiterate, in deciding which candidates will be admitted to the next MLT Program cohort, top priority will always go to new incoming students.



Appendix 1 - MLT Student Rights and Responsibilities

1.1 Student Rights and Responsibilities

MLT students share the same rights and responsibilities as all Folsom Lake College Students. As such, it is important that MLT students also review "Student Rights and Responsibilities" in the current college catalog: <https://www.flc.losrios.edu/academics/programs-and-majors/catalog-archive>

Included are:

- Essential Elements of a High-Quality Education
- Use and Release of Student Information (FERPA)
- Student Academic Rights
- Student Responsibilities
- Student Standards of Conduct
- Academic Integrity and Responsibility (Plagiarism and Cheating)
- Alcohol and Drug Policy
- Smoking Policy
- Computer Use Policy
- Internet Use Policy
- Student Disciplinary Procedures and Due Process
- Class Related Concerns

1.2: Equal Opportunity, Equity, Discrimination, & Harassment

All Folsom Lake College students, including MLT students, should also be aware of the policies surrounding equal opportunity, equity, discrimination, and harassment. Again, refer to the current college catalog for more information. A link can be found on this page.

Appendix 2 - Implementation of Student Counseling, Quality Improvement, Memo and Educational Agreements

2.1 *Conditions of Use*

Implementation of counseling means action on the part of the Program Director and/or Dean of the Division taken when a student needs to change their behavior(s). "Memos" and "Educational Agreements" are formal written methods of notifying the student of the need to modify their behaviors. The use of a Memo will generally proceed the use of an Educational Agreement; a student receiving a Memo and then an Educational Agreement should recognize the increasing concern with the student's behavior and/or performance on the part of the MLT Program.

2.2 *Quality Improvement*

2.2.1 Policy

Critical elements include those professional behaviors or characteristics that are so important to laboratory procedures or skills and patient safety that failure to perform them correctly is considered unsafe practice. A list of critical elements for MLTs is contained in Section 5.5 of this Handbook.

All critical elements will be considered in the ongoing evaluation of the student's clinical performance and are areas in which satisfactory performance must be achieved and maintained. The student is expected to comply with the critical elements 100% of the time.

Violation of, or failure to perform, any of the critical elements will result in the student completing a Student Quality Improvement Report (sample copy included in this appendix) which will then be submitted to the instructor and/or MLT Program Director. A pattern of violations will result in a Memo and, if sufficient change in behavior is not demonstrated on the part of the student, an Educational Agreement. FAILURE TO COMPLY WITH ANY ONE OF THE CRITICAL ELEMENTS MAY ULTIMATELY RESULT IN THE STUDENT RECEIVING A "D" OR AN "F" IN A COURSE AND THE STUDENT'S SUBSEQUENT DISMISSAL FROM THE MLT PROGRAM.

2.2.2 Procedure

1. When the student makes an error at a clinical site, the student's preceptor or clinical instructor will require the student to complete Sections 1 and 2 of the Student Quality Improvement Report.
2. Once the student has completed Sections 1 and 2 of the Student Quality Improvement Report, the Report is submitted to the student's clinical instructor/preceptor for review of these sections and completion of Section 3.
3. After the clinical instructor/preceptor has reviewed sections 1 and 2 of the Student Quality Improvement Report and completed Section 3, the report is to be reviewed with the student and signed in Section 4 by the student and the clinical instructor/preceptor. The Report will then be forwarded to the MLT Program Director or designee for review.

4. Once the Program Director or designee has reviewed and signed the Student Quality Improvement Report, the Report will be turned back to the clinical instructor/preceptor. At this time, the clinical instructor/preceptor will make and provide a copy of the Report to the student. The original signed Student Quality Improvement Report will be placed in the student's permanent file.

2.3 Memo

Students in the FLC MLT program are adult learners and are responsible for their own learning. It is the student's responsibility to be aware of standards regarding grading, testing, absenteeism, tardiness, and other professional expectations described in this Handbook. It is expected that adult learners will be aware of their standing in didactic and practicum classes via test results, graded papers, and other evaluation feedback. As a courtesy, a didactic or clinical instructor may provide a written memo to students to reinforce and document the student's standing in class or a student's violation of the Program expectations.

For example, all MLT students are expected to:

1. Maintain a grade average of 75% in all didactic course work;
2. Achieve all the clinical objectives for a practicum course;
3. Maintain good attendance and promptness;
4. Maintain professional standards in dress and appearance;
5. Hand in required work on time.

If a pattern is established in which these, or other, Program objectives are not being met, a student will receive a Memo providing written documentation of their violation of Program expectations. If violations continue, a student will subsequently be issued an Educational Agreement.

2.4 Educational Agreement

An individualized Educational Agreement identifies:

1. The course objectives or Program expectations which have not been met with a description of the student's performance;
2. What the student must do to achieve the objectives/expectations within a stated time frame, and
3. What, if anything, the instructor will provide to assist the student to meet the objectives/expectations.

If a student is not able to meet the specified objectives/expectations, the student will not pass the course and will be dismissed from the MLT Program.

2.5 Distribution

Copies of Memos and Educational Agreements will be provided to:

1. MLT Program Director
2. Student File
3. Instructor/Preceptor
4. Student

**FOLSOM LAKE COLLEGE
MEDICAL LABORATORY TECHNICIAN PROGRAM
STUDENT QUALITY IMPROVEMENT REPORT**

Instructions: the student will complete ALL components of Sections 1 and 2 and sign the back of this form. The instructor will complete Section 3. The document will then be signed by the Program Director, the original will be filed and the student will receive a copy.

SECTION 1 (to be completed by student)

Student's Name _____ Date _____

Course Instructor Name _____

Course Number and Name _____ Laboratory/Entity _____

Laboratory/Entity Incident Report Completed? Yes _____ No _____

Critical Element(s) Violation/Failure? Yes _____ No _____ If yes, indicate the critical element(s) from Section 4 and identify here.

Student's Description of the Occurrence:

How can this occurrence be prevented in the future?

SECTION 2 – QUALITY MONITORING RECORD (to be completed by clinical instructor/preceptor)

Select from below ALL that apply to the occurrence

Skills/Equipment/Procedure

- Procedure knowledge
- Equipment knowledge
- Procedure Omitted
- Sterile technique break
- Handwashing Omitted
- Other

Management/Organization

- Shift not finished on time
- Unable to organize tasks
- Inappropriate prioritization
- Late to clinical
- Late to conference/meeting
- Late paperwork
- Incomplete paperwork
- Other

Communication Problem

- Incomplete prep/data gathering
- Inadequate follow through with staff
- Incomplete report
- Miscommunication of assignment scope
- Delegation miscommunication
- Unprofessional behavior
- Documentation incomplete/incorrect
- Legibility/spelling/grammar errors
- Assignment not posted
- Cannot effectively communicate in English
- Other

Policy Problem

- Dress code violation
- Failure to notify instructor of absence/late arrival
- Improper personnel ID
- Other

Select All Causative Factors

- Checking procedures
- Confusing, misread, illegible
- Forgotten/overlooked
- Improper patient/sample ID
- Math/calculation
- Chain-of-custody checking
- Insufficient familiarity with lab protocols
- High activity of unexpected event
- Other

SECTION 3 (to be completed by clinical instructor/preceptor)

Instructor Description of the Occurrence/Recommendations:

This occurrence constitutes (mark one): ___ Unsatisfactory Performance/Behavior ___ Unsafe Behavior ___ Gross Negligence

SECTION 4 - CRITICAL ELEMENTS FOR ALL COURSES

The MLT student at FLC is expected to satisfactorily perform the following "critical elements" or tasks related to MLT employment:

1. Collect and report specific accurate data from tests, other laboratory or hospital staff, medical records and other appropriate sources.
2. Document information accurately, legibly and within appropriate time frames according to hospital and laboratory policy using correct grammar, spelling, accuracy, abbreviations, and terminology. Review records at end of shift to ensure accuracy and completeness.
3. Communicate effectively in English with preceptors, other laboratory and hospital staff, FLC instructors and program staff both verbally and in writing.
4. Provide a safe laboratory environment by recognizing/anticipating safety hazards, implementing preventative measures, following OSHA guidelines and hospital policies.
5. Demonstrate physical ability and emotional stability adequate to safely perform the duties of an MLT.
6. Communicate and demonstrate the integration of theoretical knowledge to support the performance of clinical skills in a hospital laboratory setting.
7. Safely execute the duties associated with phlebotomy, including specimen draws and sample handling.
8. Comply with FLC Student Rights and Responsibilities, as defined in the FLC Catalog, the MLT Student Handbook, and all course materials.
9. Render MLT service as a student trainee only under the supervision of an instructor or CLS while adhering to the scope of practice as delineated in this Handbook or by the student's preceptor during scheduled laboratory or practicum time.
10. Recognize or acknowledge when an error or break in technique or self-injury and immediately notify the instructor or preceptor giving an accurate account of event and implementing an appropriate plan or action.
11. Maintain professionalism, accept feedback cordially, respond to instructor's counseling in a respectful manner demonstrating positive changes in behavior.
12. Assume responsibility and accountability for your own learning by recognizing and evaluating your own abilities and limitations, utilizing instructors and preceptors as a resource for improvement.
13. Comply with hospital policies, procedures and protocols, including HIPAA, while adhering to client's rights and MLT's legal and ethical responsibilities.

All critical elements will be considered in the ongoing evaluation of the student's clinical performance. Satisfactory performance must be achieved in all critical elements by the end of the course/semester to progress to the next course/semester.

STUDENT'S SIGNATURE _____ Date _____

INSTRUCTOR'S SIGNATURE _____ Date _____

PROGRAM DIRECTOR'S SIGNATURE _____ Date _____

Copies of this form to be distributed to Student, Student's File, Instructor/Preceptor, Program Director

Folsom Lake College
Medical Laboratory Technician Program

Memo Related to Substandard Student Performance

To: *[Student Name]*
From: *[Course Instructor, Program Director, or Dean of the Department]*
Date: *[Date of Issuance]*

Area of Concern:

- Midterm Grade of Less Than 75%
- End of Semester Grade of Less than 75% Going Into the Final Exam
- Practicum (clinical) Test Grade (Theory) of Less Than 75%
- Excessive Didactic (class)/Practicum (clinical) Absence
- Excessive Didactic (class)/Practicum (clinical) Tardiness
- Failure to Achieve Clinical Objectives
- Failure to Maintain Professional Standards in Dress and Appearance
- Failure to Submit Assignments on Time
- Other

Specific Information (course, instructor, missed or failed assignments, absence or tardiness information); Recommended Steps to Correct; Consequences if not Corrected:

Signature of Program Representative:

Printed Name of Program Representative:

Date Signed: _____

Student Signature:

Printed Name of Student:

Folsom Lake College
Medical Laboratory Technician Program
Individualized Educational Agreement
Related to Substandard Student Performance

To: [Student Name] _____
From: [Course Instructor, Program Director, or Dean of the Department] _____
Date: [Date of Issuance] _____

Section 1: Description of Unmet Course or Program Objectives or Expectations (completed by Instructor/Program Coordinator/Dean): _____

Section 2: Steps to be Taken by Student to Correct Unmet Expectations (Include Timeframe):

Section 3: Assistance to be Provided by Instructor (if any): _____

***Failure to meet specified Objectives/Expectations within the Specified Timeframe will Result in
Dismissal from the MLT Program***

Signature of Program Representative:

Student Signature:

Printed Name of Program Representative:

Printed Name of Student:

Date Signed: _____

Appendix 3 - MLT Licensing Requirements Extracted from Title 17 of the California Code of Regulations and Business and Professions Code 1260-1275

As an MLT student, and future California MLT, it is important you understand the license requirements and duties you will be expected to perform. These will differ from national standards and other states, and are frequently changing. As such, you can the most-current versions in the links provided below:

- Title 17: [Licensure of Clinical Laboratory Personnel. See 1032.5](#)
- [Business and Professions code. See 1260-1275](#)

Appendix 4 – FLC MLT Course Descriptions, Student Learning Outcomes, and Behavioral Objectives

Identifier: MEDTEC 310

Title: Introduction to Medical Laboratory Techniques and Skin Punctures

Units: 2.00

Prerequisite: None.

Advisory: BUSTEC 307.1 (Intro Keyboarding/Application); For those for whom English is a second language, ENGRD 110 and ESLL 310 are recommended.

Enrollment

Limitation: Students must be admitted to the Medical Laboratory Technician Program at Folsom Lake College. Students must also provide documentation of Hepatitis B vaccination status before beginning this class, as students will be handling blood and body fluid specimens in all class sessions. Students will also be required to purchase their portion of the college's liability insurance policy.

Hours: 27 hours lecture, 27 hours laboratory, 54 hours out-of-class work

Upon completion of this course, the student will be able to:

- discuss the major points of the Patient's Bill of Rights and the Health Insurance Portability Accountability Act (HIPAA) and the phlebotomist's responsibility for maintaining confidentiality of privileged information on individuals.
- enumerate the different sections of a medical laboratory and the common tests and specimen requirements for each section.
- choose the correct blood collection equipment for a variety of both skin and vein punctures, including the types of tubes and additives.
- differentiate between capillary and venous specimens, state the acceptable order of draw for capillary specimens, and name the tests that cannot be performed on capillary specimens.
- demonstrate at least five skin puncture procedures on a variety of students with the correct documentation of patient and specimen identification and employ appropriate Standard Precautions and Lab Safety techniques.

- Identifier:** MEDTEC 311
- Title:** Advanced Phlebotomy Venipuncture Skills
- Units:** 2.00
- Prerequisite:** MEDTEC 310 (*Introduction to Medical Laboratory Techniques and Skin Punctures*) with a grade of "C" or better
- Advisory:** BUSTEC 307.1 (*Intro Keyboarding/Application*)
- Enrollment Limitation:** Students must be admitted to the Medical Laboratory Technician Program at Folsom Lake College. Students must also provide documentation of Hepatitis B vaccination status before beginning this class, as students will be handling blood and body fluid specimens in all class sessions. Students are also required to purchase their portion of the college's liability insurance policy.
- Hours:** 27 hours lecture, 27 hours laboratory, 54 hours out-of-class work
- Description:** This course meets the minimum requirement of 20 hours of didactic instruction in Advanced Phlebotomy procedures as required by the California Department of Public Health (CDPH) regulations. Students learn to perform a venipuncture (the penetration of a vein with a needle to withdraw blood for therapeutic or clinical laboratory testing) on other students using the three available systems. Purchase of personal protective equipment, including a lab coat, safety glasses, and disposable gloves is required. Students may be required to provide their own transportation on a field trip.

Upon completion of this course, the student will be able to:

- differentiate the various arm veins and the suitability of each for venipuncture.
- describe the risk factors, list the complications, and evaluate the appropriate phlebotomist responses associated with venipuncture complications for a variety of patient age groups.
- list the pre-analytical sources of error in specimen collection, transport, processing and storage, and demonstrate correct procedures used to prevent such errors.
- demonstrate at least 6 successful venipunctures on a variety of students using the 3 different methods and following appropriate safety and infection control procedures.

Identifier: MEDTEC 312

Title: Phlebotomy Clinical Internship

Units: 2.00 - 3.50

Prerequisite: MEDTEC 311 (*Advanced Phlebotomy Venipuncture Skills*) with a grade of "C" or better

Advisory: BUSTEC 307.1 (*Intro Keyboarding/Application*)

Enrollment Limitation: Students must be admitted to the Medical Laboratory Technician Program at Folsom Lake College. Students must have met all background, drug, and immune checks set by the clinical affiliate.

Hours: 9 hours lecture, 81 - 162 hours laboratory, 18 hours out-of-class work

Description: The student will spend at least 81 hours in a Clinical Internship at a medical laboratory performing at least 10 skin and 50 venipunctures on patients from a variety of age groups and medical conditions. Administrative skills will also be practiced. The Clinical Internship is conducted as a non-paid laboratory experience and the student is required to attend the facility for the minimum required hours. Students must also adhere to all entry criteria for entry into the MLT Program including, but not limited to, passing drug, background, and immunology screens, their portion of the college's liability insurance, and personal health insurance. Students will be required to provide their own transportation to the partner health care facility which may be outside of the Sacramento region.

Upon completion of this course, the student will be able to:

- employ appropriate specimen processing and handling procedures, describe criteria for rejection, and recognize tests needing special handling or confirmatory testing.
- apply departmental safety procedures, including the safe use and disposal of biohazardous material.
- demonstrate correct techniques when performing a minimum of 10 skin punctures and 50 venipunctures on patients from a variety of age groups and medical conditions, using appropriate infection control and safety precautions.
- practice the correct administrative skills of a phlebotomist such as answering phones, specimen labeling, test ordering, accessioning, and specimen processing.

Identifier: MEDTEC 323

Title: Clinical Chemistry

Units: 4.00

Prerequisite: None.

Enrollment Limitation: Admission to the Medical Laboratory Technician (MLT) Program or program director approval

Hours: 54 hours lecture, 54 hours laboratory, 108 hours out-of-class work

Description: This course introduces students to mathematical applications in the clinical laboratory, especially as applied to quality assurance, quality control and reporting of results. Also covered is the basic biochemistry of metabolism, including carbohydrates, proteins, lipids and electrolytes, and the instrumentation used for their measurement. The study of endocrinology, enzyme function, therapeutic drugs, and blood gases will also be covered. Discussion topics will be correlated with applications in human medicine. Purchase of personal protective equipment, including safety glasses and a disposable gloves is required. Students must also provide documentation of current Tuberculosis clearance and Hepatitis B vaccination status, as blood and body fluid specimens will be processed.

Upon completion of this course, the student will be able to:

- explain pre-analytic, analytic, and post-analytic variables in sample testing.
- cite the various analytes in the body and how they correlate with specific disease states.
- describe the analytic methods behind basic chemistry instrumentation including the mechanism of measurement and any system limitations.
- evaluate quality control results and recognize trends, shifts and invalid results.
- demonstrate proper dilution technique through the utilization of various laboratory pipettes.
- analyze a calibration curve to identify the concentration of an unknown substance.

Identifier: MEDTEC 324

Title: Urine and Body Fluid Analysis

Units: 2.00

Prerequisite: None.

Enrollment Limitation: Admission to the Medical Laboratory Technician (MLT) Program or program director approval

Hours: 20 hours lecture, 48 hours laboratory, 40 hours out-of-class work, for a total of 108 student learning hours.

Description: An introduction to the study of urine and body fluid analysis. Includes the anatomy and physiology of the kidney, physical, chemical and microscopic examination of urine, cerebrospinal fluid, and other body fluids as well as quality control, quality assurance and safety. Purchase of personal protective equipment, including safety glasses and disposable gloves, is required. Students must also provide documentation of current Tuberculosis clearance and Hepatitis B vaccination status as blood and body fluid specimens will be processed.

Upon completion of this course, the student will be able to:

- exhibit an understanding of the anatomy and function of the renal system.
- correlate urinalysis and body fluid test results with patient condition(s).
- perform a routine urinalysis and explain the principles of each test.
- describe the composition, formation, and function of urine and selected body fluids.
- state the collection procedure for urine and other selected body fluids.

Identifier: MEDTEC 330

Title: Hematology

Units: 4.00

Prerequisite: None.

Enrollment Limitation: Admission to the Medical Laboratory Technician (MLT) Program or program director approval

Hours: 50 hours lecture, 66 hours laboratory, 100 hours out-of-class work

Description: This course provides an overview of human blood cell development and function. Hematological disorders and corresponding laboratory findings will also be addressed. Purchase of personal protective equipment, including a lab coat, safety glasses, and disposable gloves, is required. Students must also provide documentation of current Tuberculosis clearance and Hepatitis B vaccination status, as blood and body fluid specimens will be processed.

Upon completion of this course, the student will be able to:

- demonstrate an understanding of the components of human blood including cellular characteristics, functions, abnormalities, and disease states.
- describe the coagulation mechanism and correlate abnormalities with disease states.
- demonstrate proficiency in the skills necessary to perform blood cell counts, and evaluation of blood elements within stated limits of accuracy.
- perform the slide stain procedure and demonstrate competency in blood cell differentiation.
- demonstrate compliance with OSHA safety regulations for blood-borne pathogens.

Identifier: MEDTEC 340

Title: Immunology and Immunohematology

Units: 4.00

Prerequisite: None.

Enrollment Limitation: Admission to the Medical Laboratory Technician (MLT) Program or program director approval

Hours: 50 hours lecture, 66 hours laboratory, 100 hours out-of-class work

Description: This course introduces the principles of the immune response, including cells and function of the immune system as well as antibody and antigen reactions. Blood grouping, compatibility testing, transfusion medicine, immunological and serological testing procedures are also discussed. Purchase of personal protective equipment, including a lab coat, safety glasses, and disposable gloves, is required. Students must also provide documentation of current Tuberculosis clearance and Hepatitis B vaccination status, as blood and body fluid specimens will be processed.

Upon completion of this course, the student will be able to:

- recognize components of the immune system and their protective action as applied to injury or disease.
- correlate the various serologic markers of hepatitis with their diagnostic significance and indicate the laboratory methods that are most commonly used to screen, confirm, or monitor hepatitis virus infections.
- describe the characteristics of ABO, Rh, and other blood group systems, and identify their role in blood compatibility.
- demonstrate an understanding of intermediate level Immunohematology testing including the resolution of forward and back-type mismatching, antibody panel interpretation, and proper transfusion reaction workup.
- perform serological testing methods and define their principles and limitations.
- apply forward and back-typing procedures to correctly identify the blood type of an unknown sample.

Identifier: MEDTEC 350

Title: Clinical Microbiology

Units: 4.00

Prerequisite: None.

Enrollment Limitation: Admission to the Medical Laboratory Technician (MLT) Program or program director approval

Hours: 50 hours lecture, 66 hours laboratory, 100 hours out-of-class work

Description: This course discusses pathogenic bacteria, fungi and parasites. Emphasis is placed on morphology and identification of medically important organisms and techniques used in their identification. Purchase of personal protective equipment, including a lab coat, safety glasses, and disposable gloves, is required. Students must also provide documentation of current Tuberculosis clearance and Hepatitis B vaccination status, as blood and body fluid specimens will be processed.

Upon completion of this course, the student will be able to:

- discriminate between normal and abnormal flora for all areas of the body.
- evaluate specimen acceptability and apply proper methods of specimen preparation.
- evaluate the impact of various infectious diseases, including descriptions of the causative agent(s), signs and symptoms, pathogenesis, virulence factors, epidemiology, diagnosis, biochemical testing, treatment, and prevention.
- demonstrate safe use, handling, and disposal of microbiological organisms and bio-hazardous waste.
- apply Gram Stain and biochemical testing procedures to identify an unknown organism.

Identifier: MEDTEC 360

Title: Chemistry and Urinalysis Practicum

Units: 4.00

Prerequisite: MEDTEC 323 (*Clinical Chemistry and Urinalysis*) with a grade of "C" or better

Enrollment Limitation: Students must be admitted to the Medical Laboratory Technician Program at Folsom Lake College. Students must have met all background, drug, and immune checks set by the clinical affiliate.

Hours: 216 hours laboratory

Description: This course provides a clinical laboratory experience in the chemistry department of a local health care organization. Instrumentation and manual methods will be introduced. The clinical internship is conducted as a non-paid laboratory experience and the student is required to attend the facility for the minimum required hours. Emphasis will be placed on technique, accuracy and precision. Purchase of personal protective equipment, including a lab coat, safety glasses, and disposable gloves, is required. Students must also adhere to all entry criteria for entry into the MLT Program including, but not limited to, passing drug, background, and immunology screens, their portion of the college's liability insurance, and personal health insurance. Students will be required to provide their own transportation to the partner health care facility which may be outside of the Sacramento region.

Identifier: MEDTEC 360

Upon completion of this course, the student will be able to:

- demonstrate an understanding of chemistry and urinalysis test results and understand their clinical significance.
- apply departmental safety procedures, including the safe use and disposal of biohazardous material.
- demonstrate familiarity with basic department specific maintenance procedures and apply quality control and corrective action procedures as appropriate.
- perform specimen analysis as appropriate, correctly interpreting chemistry and urinalysis results.
- employ appropriate specimen processing and handling procedures, describe criteria for rejection, and recognize tests needing special handling or confirmatory testing.
- perform both macroscopic and microscopic urinalysis procedures including the identification and differentiation of urine elements.

Identifier: MEDTEC 361

Title: Hematology and Hemostasis Practicum

Units: 4.00

Prerequisite: MEDTEC 330 (*Hematology*) with a grade of "C" or better

Enrollment Limitation: Students must be admitted to the Medical Laboratory Technician Program at Folsom Lake College. Students must have met all background, drug, and immune checks set by the clinical affiliate.

Hours: 216 hours laboratory

Description: This course provides a clinical laboratory experience in the hematology department of a local health care organization. Instrumentation and manual methods will be introduced. The clinical internship is conducted as a non-paid laboratory experience and the student is required to attend the facility for the minimum required hours. Emphasis will be placed on technique, accuracy and precision. Purchase of personal protective equipment, including a lab coat, safety glasses, and disposable gloves, is required. Students must also adhere to all entry criteria for entry into the MLT Program including, but not limited to, passing drug, background, and immunology screens, their portion of the college's liability insurance, and personal health insurance. Students will be required to provide their own transportation to the partner health care facility which may be outside of the Sacramento region.

Identifier: MEDTEC 361

Upon completion of this course, the student will be able to:

- demonstrate an understanding of hematology test results and their clinical significance.
- apply departmental safety procedures, including the safe use and disposal of biohazardous material.
- demonstrate familiarity with basic department specific maintenance procedures and apply quality control and corrective action procedures as appropriate.
- perform specimen analysis as appropriate, correctly interpreting automated CBC and coagulation results.
- employ appropriate specimen processing and handling procedures, describe criteria for rejection, and recognize tests needing special handling or confirmatory testing.
- produce acceptable peripheral blood smear slides and correctly identify cellular components.

Identifier: MEDTEC 362

Title: Immunology and Immunochemistry Practicum

Units: 3.00

Prerequisite: MEDTEC 340 (*Immunology and Immunochemistry*) with a grade of "C" or better

Enrollment Limitation: Students must be admitted to the Medical Laboratory Technician Program at Folsom Lake College. Students must have met all background, drug, and immune checks set by the clinical affiliate.

Hours: 162 hours laboratory

Description: This course provides a clinical laboratory experience in the immunology/immunochemistry department of a local health care facility. Instrumentation and manual methods will be introduced. The clinical internship is conducted as a non-paid laboratory experience and the student is required to attend the facility for the minimum required hours. Emphasis will be placed on technique, accuracy and precision as well as specimen receipt and evaluation, special handling procedures, and component processing in the transfusion service. Purchase of personal protective equipment, including a lab coat, safety glasses, and disposable gloves, is required. Students must also provide documentation of Tuberculosis status & Hepatitis B vaccination status, as blood and body fluid specimens will be processed. Students must also adhere to all entry criteria for entry into the MLT Program including, but not limited to, passing drug, background, and immunology screens, their portion of the college's liability insurance, and personal health insurance. Students will be required to provide their own transportation to the partner health care facility which may be outside of the Sacramento region.

Identifier: MEDTEC 362

Upon completion of this course, the student will be able to:

- demonstrate an understanding of immunology and immunochemistry test results and their clinical significance.
- apply departmental safety procedures, including the safe use and disposal of biohazardous material.
- demonstrate familiarity with basic department specific maintenance procedures and apply quality control and corrective action procedures as appropriate.
- perform specimen analysis as appropriate, correctly interpreting serology and blood Bank results.
- demonstrate familiarity in the immunochemistry department by correctly interpreting blood type and antibody identification.
- employ appropriate specimen processing and handling procedures, describe criteria for rejection, and recognize tests needing special handling or confirmatory testing.
- execute proper blood product handling and dispensing procedures.

Identifier: MEDTEC 363

Title: Microbiology Practicum

Units: 4.00

Prerequisite: MEDTEC 350 (*Clinical Microbiology*) with a grade of "C" or better

Enrollment Limitation: Students must be admitted to the Medical Laboratory Technician Program at Folsom Lake College. Students must have met all background, drug, and immune checks set by the clinical affiliate.

Hours: 216 hours laboratory

Description: This course provides a clinical laboratory experience in the Microbiology, Mycology, Virology and Parasitology departments of a local health care facility. Instrumentation and manual methods will be introduced. The clinical internship is conducted as a non-paid laboratory experience and the student is required to attend the facility for the minimum required hours. Emphasis will be placed on technique, accuracy and precision. Purchase of personal protective equipment, including a lab coat, safety glasses, and disposable gloves, is required. Students must also provide documentation of Tuberculosis status & Hepatitis B vaccination status, as blood and body fluid specimens will be processed. Students must also adhere to all entry criteria for entry into the MLT Program including, but not limited to, passing drug, background, and immunology screens, their portion of the college's liability insurance, and personal health insurance. Students will be required to provide their own transportation to the partner health care facility which may be outside of the Sacramento region.

Identifier: MEDTEC 363

Upon completion of this course, the student will be able to:

- demonstrate an understanding of microbiology test results and their clinical significance.
- apply departmental safety procedures, including the safe use and disposal of biohazardous material.
- demonstrate familiarity with basic department specific maintenance procedures and apply quality control and corrective action procedures as appropriate.
- employ appropriate specimen processing and handling procedures, describe criteria for rejection, and recognize tests needing special handling or confirmatory testing.
- perform specimen analysis as appropriate, correctly interpreting culture results.
- demonstrate familiarity with the isolation and identification of pathogenic organisms in various specimen types.

Behavioral Objectives

Per NAACLS guidelines, students will also be evaluated on the following behavioral objectives in each MLT course:

In Didactic courses students will be required to:

- display engagement in the material by consistently doing additional research to better understand applicable topics.
- communicate effectively to deliver subjective and objective information, both written and oral, in a clear, concise, and organized manner.
- accept criticism in a constructive manner by demonstrating prompt improvement.
- report to class at the scheduled time in accordance with the course syllabus and MLT Program Handbook.
- report all absences in case of illness and all instances of expected tardiness according to the Instructor.

In Practicum courses students will be required to:

- apply knowledge gained in previous didactic training, assigned reading, and/or discussion to the appropriate clinical area.
- observe HIPAA regulations by respecting the patient's right to privacy and never discussing medical information about patients in a public area.
- adhere to the clinical affiliate's policies and procedures 100% of the time.
- complete all affiliate forms, training checklists, and assignments.
- interact with laboratory personnel, hospital staff, patients and the public in a positive and professional manner.
- know own limitations, and work within them, asking a technologist for assistance when required.
- accept criticism in a constructive manner by demonstrating prompt improvement.
- report to work at the scheduled time in accordance with clinical affiliate policies.
- report all absences in case of illness and all instances of expected tardiness according to the MLT Program Handbook.

MLT PROGRAM ACCOUNTABILITY



I, the undersigned, have read and understand the information, policies, and procedures, in the Folsom Lake College Medical Laboratory Technician Handbook and agree to abide by these policies in their entirety. I authorize the MLT Program Director to provide required information about me including, but not limited to, the results of drug, immune, and background screenings, to any appropriate clinical rotation site(s) on my behalf. I also recognize that I will not receive a stipend at any time during the MLT Program. Furthermore, I acknowledge that all expenses, including those associated with a temporary relocation, are my sole responsibility.

Student's Name (Print Clearly)

Student's Signature

Date