



# WELCOME

Medical Laboratory Technician  
Program

Information Session

SADDLEBACK COLLEGE

# Medical Laboratory Technician

- The Medical Laboratory Technician (MLT) program prepares students for employment as an MLT working in a clinical medical laboratory. They perform a wide variety of routine laboratory procedures and work in both public and private laboratories.
- It is a 2-3 year curriculum leading to an Associates in Science degree.
- The pay is roughly \$40,000-\$60,000 per year.
- There are expected to be about 200,000 new jobs per year in this field.
- It is one of the fastest growing careers in the Nation!

# What do MLT's and CLS do?

- Video: A Life Saved
- <http://www.ascls.org/a-life-saved-video>

# What are MLT job duties?

- Medical laboratory technicians (MLTs) perform a wide variety of routine laboratory procedures associated with tissue, blood and body-fluid analysis.
- Students learn to perform routine laboratory procedures in phlebotomy, microbiology, clinical chemistry, hematology, coagulation, immunology, and urinalysis.
- They also will learn to operate and maintain clinical laboratory equipment.
- They provide information for patient diagnosis and treatment by performing laboratory tests in toxicology, chemistry, hematology, immunology, and microbiology laboratories; receiving, typing, testing, and recording blood bank inventories.

# Job Duties

- Organizes work by matching computer orders with specimen labeling; sorting specimens; checking labeling; logging specimens; arranging reports for delivery; keeping work surfaces clean and orderly.
- Maintains quality results by running standards and controls, verifying equipment function through routine equipment maintenance and advanced trouble shooting; calibrating equipment utilizing approved testing procedures; monitoring quality control measures and protocols.
- Serves as technical resource by participating in staff training; answering questions of other professionals; participating in educational opportunities; reading professional publications; maintaining personal networks; participating in professional organizations.

# Job Duties

- Identifies and communicates abnormal patient conditions by alerting supervisory personnel, the pathologist, the patient physician, or nurse; reporting mandated information to the public health department or other designated officials.
- (toxicology) identifies the presence or quantity of drugs of abuse, therapeutic drugs, and toxic substances by operating toxicology instrumentation and performing manual methods for the performance of drug screens, blood alcohol levels, and carbon monoxide levels.
- (chemistry) provides test results for patient diagnosis and treatment by operating chemistry equipment; performing hand chemistries.
- (hematology) provides test results for patient diagnosis and treatment by operating hematology, urinalysis, and coagulation equipment; performing manual methods of differentials.

# Job Duties

- (immunology) provides test results for patient diagnosis and treatment by operating equipment such as the gamma counter, spectrophotometer, densitometer, and through methods such as radioimmunoassay, enzyme immunoassay, and serological testing.
- (microbiology) provides physician with information for treatment of patient infection by performing technical procedures for the identification or susceptibility of bacteria, parasites, fungi, and mycobacteria.
- (blood bank) ensures the patient of receiving compatible blood/blood components by completing blood typing, antibody screening, compatibility testing, and antibody identification procedures.
- (blood bank) assures future retrieval of patient transfusion information by preparing patient packets and maintaining blood bank database.

# Job Duties

- Contributes to a safe and secure environment for patients, visitors, physicians and co-workers by following established standards and procedures; complying with legal regulations.
- Maintains patient confidence by keeping laboratory information confidential.
- Serves and protects the hospital community by adhering to professional standards, hospital policies and procedures, federal, state, and local requirements, and jcaho standards.
- Enhances laboratory services and hospital reputation by accepting ownership for accomplishing new and different requests; exploring opportunities to add value to job accomplishments.



# How much do they make?

- They make \$20-28/hour, or \$35,000-\$60,000 per year. Average in California is \$47,000. The middle 50 percent earned between \$34,280 and \$40,180, and the highest 25 percent earning \$57,103.
- The ones that make the most money work in Pharmaceutical and Medicine Manufacturing, Offices of Dentists, and Individual and Family Services.

# What are their hours like?

- They work full time or part time, various shifts available, depending on the facility.
- The most common hospital shift is 6am-2:30pm or 7am – 3:30 pm.

# Where do they work?

- Both public and private laboratories serving the health care sector, such as General Medical and Surgical Hospitals, Medical and Diagnostic Laboratories, Offices of Physicians, Outpatient Care Centers, Other Ambulatory Health Care Services, Veterinarian offices, and blood bank centers. They also work in pharmaceutical manufacturing.

# **What are some company benefits?**

- Retirement, Medical insurance, vacation

# How long does it take to get degree/license

- One year of classes, then there is about a 2-year wait for a practicum site, then two semesters of clinical rotations for the practicums.
- **Associate in Science Degree**
- Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

# What grades do they need?

- Must have 75% or higher in each class to pass, or need to re-take.
- Classes are offered only once a year.
- You cannot score lower than 75% in a class more than twice.
- That means you can retake a class twice, or retake 2 different classes, but not more than that or you would be expelled from the program.

# What classes do they take?

- **Prerequisites to be completed before applying to the MLT Program:**
- Bio 15 (General Microbiology; 5 units)
- Bio 113 (Human Anatomy & Physiology, one semester course; 4 units). Cannot be part 1 or a 2-part series in A&P. You can take a whole semester of anatomy and a whole semester of physiology separately if you wish.
- Chem 108 (Introduction to general, organic, and biochemistry; 4 units). You can take these as separate classes. Note that in a chem class at a different school, **biochemistry** must be covered.
- Math 253 (Intermediate Algebra; 5 units). This math is not required if you have a Bachelor degree.

# **Courses to complete in the MLT Program**

- **FALL SEMESTER: M-Thurs 6-9pm**
- **MLT 210 (Intro to MLT; 1<sup>st</sup> 4 weeks; 1 unit); this course is also offered the summer before the first semester.**
- **MLT 211 (Lab Procedures; 2<sup>nd</sup> 4 weeks; 1 unit)**
- **MLT 230 (Clinical Chemistry; 5 units)**
- **MLT 236 (Clinical Hematology and Coagulation; 3 units)**



- **SPRING SEMESTER: M-W 6-9pm**
- MLT 232 (Clinical Microbiology; 3 units)
- MLT 235 (Clinical Urinalysis; 2<sup>nd</sup> 8 weeks; 1 unit)
- MLT 243 (Clinical Immunology)

- **CLASS TO TAKE WITH AMERICAN HEART ASSOCIATION (NOT RED CROSS)**
- Basic Life Support for Healthcare Providers; course costs about \$50 (license will be good for 2 years and then it must be renewed by taking a shorter course)
  
- **SUMMER SEMESTER or anytime at another school**
- Phlebotomy (8 week course on Saturdays 8am – 5pm; 4 units)
- After completion of this class, the student must complete 60 hours of phlebotomy training at a clinical site (2 units). There are not enough sites to get all students in the subsequent Fall semester, so it might take a year or longer to fulfil this requirement. The license required is either CPT level 1 or 2.

# Clinical Rotations

Before you can start the clinical rotations, you need the following things

- Need to have a phlebotomy license or finished course
- Need to have a valid CPR card (\$50)
- Need to pass a criminal background check (\$43). Will not clear if there are any arrests with convictions in the last 7 years, misdemeanor or felony (except traffic and DUI's are okay), and student has to be completely off probation for any crime)
- Need to be current on the required immunizations and have a physical exam by a doctor, then be cleared through the Student Health Center. See end of document for list.
- Need to purchase liability insurance (\$21 per year)

# Immunization List

Costs at the Student Health Center	
Physical Exam	\$15 Limited-(Program Clearance)
	\$25 DMV or Complex

## Required Immunization/Laboratory Tests:

You **MUST** provide documentation of immunity to the following diseases by either official medical/vaccination records or blood testing:

- Measles (Rubeola)
- Mumps
- Rubella
- Varicella
- TDAP
- Hepatitis B Surface Antibody
- Varicella IgG

Costs at the Student Health Center			
Vaccines		Blood Tests	
MMR	\$70 /dose	MMR titer	\$35
Varicella	\$130 /dose (Need 2 doses) or immunity	Varicella titer	\$15
Hepatitis B	\$70/dose (need 3)	Hepatitis B titer	\$15
TDAP	\$70		
Influenza Vaccine	\$20		

## Required Tuberculosis Skin Testing:

- **Two-step** TB skin testing is required if you have not had a TB skin test within the past year.
- **One-step** TB skin testing is acceptable if you can provide documentation of TB testing within the past year.
- Proof of negative TB or current chest X-Ray within 2 years.

Costs at the Student Health Center	
One & Two-step TB Test- Student	\$20
Community member TB	\$25

Immunization with the following vaccine is **highly recommended** but may be declined; but you must sign a declination form to be kept in your file in the division office.

- Hepatitis B

Hospitals are now requiring the seasonal flu shot. IF you decline you must wear a mask at all times in the hospital while doing patient care.

# PRACTICUMS AT CLINICAL SITES

- After the above classes are completed, and the phlebotomy license and CPR card are submitted to the HS Office, and the student has cleared a background check (cost is \$43), health clearance (including updated immunizations), and has purchased liability insurance (about \$21 per year), students will then be set up for interviews for the following rotations at clinical sites. Since there are not enough sites for all the students, it might take a year or more to start these rotations. Some students are not accepted by any sites, even after three interviews. This is often caused from lack of adequate English skills. Students are advised to take courses such as Conversational English
- MLT 242 (Clinical Chemistry Practicum; 4 units)
- MLT 244 (Clinical Hematology/Coagulation Practicum; 4 units)
- MLT 252 (Clinical Microbiology Practicum; 4 units)
- MLT 253 (Clinical Immunology Practicum; 3 units)

# STATE BOARD EXAM

- After completion of all classes and practicums at the clinical sites, must take the State Board exam through ASCP (American Society of Clinical Pathologists).
- **Passing this test will allow you to work as an MLT in CALIFORNIA only. There are no MLT programs in California that allow you to work in other States.**
- This exam must be passed within 5 years after completion of all classes and practicum rotations. You do not get your MLT license until after you pass this exam. To get the license, go to <http://www.cdph.ca.gov/programs/lfs/Pages/clinicallaboratorypersonnel.aspx> and apply online. Application fee is \$200. It takes 150 days to process.

# How to Apply

- We accept applications starting the first Monday in June and continuing for two weeks (M-F 8:30 am to 4:30pm). **The first qualified students who turn their completed application and UNOFFICIAL transcripts in to the HS Office are the ones who are accepted.** Classes start two months later, in August. Official transcripts must be on file with Saddleback College Admissions and Records before you can register for MLT classes.
- If students come to the office with all the documents listed on the application, they get accepted to the program, first come, first served.

# FAQs

- The Saddleback program is not NAACLS approved; therefore, you cannot work as an MLT outside of California.
- It is LFS approved and State of California approved.
- Your MLT School counselor is  
Paris Peck [Ppeck@Saddleback.edu](mailto:Ppeck@Saddleback.edu)
- [\(949\) 582-4572](tel:9495824572)
- Call the counseling center and ask to have an appointment with her. It takes longer to contact her by email.