



South Central College Program Design

AAS 2301/3309 Medical Laboratory Technician

Program Information

Instructional Level Associate Degree

Career Cluster Health Science Technology

Description

The Medical Laboratory Technician curriculum includes a combination of general education and support courses, online lectures, face-to-face student laboratory sessions, and placement of students in a hospital or clinic internship experience. The program is considered a "hybrid" program because there are required face-to-face student laboratory sessions in which a student must physically be present on one of South Central College's two campuses in order to fulfill the requirements of the student laboratory sessions. Lab work is conducted under the supervision of a certified Clinical Laboratory Scientist. The experience allows the student to apply knowledge learned in the didactic phase in an employment-like setting. Students rotate through all areas of the clinical laboratory gaining experience and practice in basic clinical laboratory techniques, procedures, and phlebotomy.

Application to the Medical Laboratory Technician program requires a separate application process from admission to the college. Applications for the program are typically due on April 1st for a Fall Semester start. To obtain an application, please visit the Medical Laboratory Technician (MLT) program website. Applicants must have completed or be in the process of completing the following sequence of courses with a grade of "C" or higher:

- HC 1000 Medical Terminology (3 credit)
- CHEM 108 Introduction to Chemistry (4 credits) **or** CHEM 110 Chemistry for the Health Sciences (4 credits)
- MDLT 1810 Laboratory Techniques and Orientation (3 credits)
- BIOL 162 Human Biology (4 credits)

Mission

The MLT program mission is to provide quality clinical laboratory education for related employment and lifelong learning.

Career/Job Titles

Medical Laboratory Technician

Clinical Laboratory Technician

Accreditation Information

The MLT program at SCC is accredited by:

NAACLS
(National Accrediting Agency for the Clinical Laboratory Sciences)
5600 N. River Road, Suite 720
Rosemont, IL 60018
773-714-8880

This means that the MLT Program has met the standards set by NAACLS to ensure that the program is currently accredited at the MLT-AD (Applied Associate of Science Degree) level. Programs accredited by NAACLS must undergo periodic review appraisal to maintain accreditation.

Entry Requirements

Basic Entrance Requirements/Criteria

1. In order to qualify for admission to the MLT Program, students must be a high school graduate or the equivalent. Equivalency may be obtained by GED certificate.
2. If Liberal Arts and Sciences courses have been obtained through another accredited institution, a transcript verifying college level courses with a grade of "C" (2.0) or better in the following courses (or transfer equivalent): Chemistry, Human Anatomy or Human Biology will be accepted.
3. Other required courses include: Medical Terminology, and a basic computer course.

Until these basic entrance requirements/criteria have been met, students interested in enrolling in the MLT program will be required to register with Student Services into a pre-MLT major. Once basic entrance requirements/criteria have been met, students will apply to the MLT program through a separate application process.

The MLT program accepts applications once a year from January 1st through May 31st. For more information on how to apply, contact Student Services or the MLT department.

Students will be notified, by SCC email, of acceptance into the MLT Program by the Program Director. An MLT Advisor will then be assigned. It is very important to contact the MLT advisor as soon as possible so that a program plan, that shows your course progression throughout the MLT Program, can be devised.

When the maximum number of students has been accepted, additional students will be placed on a waiting list. As openings occur, applicants on the waiting list will be contacted in the order of their application dates.

Background Check Requirements

Minnesota law requires that any person who provides services that involve direct contact with patients and residents at a healthcare or child care facility licensed by the Minnesota Department of Health (MDH) have a background study conducted by the state. An individual who is disqualified from having direct patient contact as a result of the background study and whose disqualification is not set aside by the Commissioner of Health will not be permitted to participate in a clinical internship in a Minnesota licensed healthcare or child care facility. SCC's MLT program partners with several internship sites whose policy and procedure is to not accept individuals into an internship rotation whose background study is "set aside" by the MDH. As part of our partnership with our internship sites, the MLT program agrees to support these policies and procedures. If access is denied, SCC MLT faculty is not responsible for finding an alternate internship site. Failure to participate in a clinical internship, which is required by the MLT program, could result in ineligibility to qualify for a degree in the program.

In the event that an individual with a "set aside" background study decides to continue enrollment in the MLT program, MLT faculty cannot guarantee progression into an internship experience.

If, however: 1) an individual is successful with a legal attempt to have the “set aside” offense removed from their record; 2) a new background study deems them “qualified” to have patient contact, and 3) if the individual, on their own within one year of completing all technical program courses, required courses, and general education courses, is able to obtain an internship site, MLT faculty will work with the individual to facilitate the internship experience.

This background study information can be transferred to all assigned clinical facilities and does not necessitate multiple forms. All students will be required to sign a form allowing for the transfer of information from one facility to another.

Immunization Requirements

Health documentation requirements prior to the start of clinical internship rotations.

1. Students are required to submit a student health form prior to a clinical internship.
2. Students are required to carry liability insurance coverage during their enrollment in the MLT program. Liability insurance fees are directly attached to tuition and fees. Therefore, payment of tuition and fees for courses ensures region-wide blanket policy coverage. Inability to pay tuition and fees means loss of coverage and the student cannot be allowed to participate in the program.
3. Immunization records should include the following:

<u>Tuberculosis (Mantoux) Testing</u>	<ul style="list-style-type: none"> • Documentation of baseline TST (tuberculin skin test) or blood assay for TB (e.g. QuantiFERON blood test [QFT]) before assignment <ul style="list-style-type: none"> ○ 2-step TST or QFT if no TST within previous 12 months ○ Single step TST or QFT is TST within previous 12 months • Persons who work with patients at high risk for TB or do high risk procedures required evidence of annual TST or QFT • Persons with prior positive TST or QFT: documentation of subsequent negative CXR, and no signs and symptoms of pulmonary TB. • Newly positive TB test: evidence of negative CXR (recent CXR-i.e. previous month, can be used), no signs or symptoms of pulmonary TB, and annual symptom questionnaire
<u>Varicella (Chicken Pox or VZV)</u>	Documentation of immunity: <ul style="list-style-type: none"> • Reliable history of VZV or shingles • Positive serology (titer) • History of two doses of vaccination
<u>Mumps</u>	Documentation of immunity: <ul style="list-style-type: none"> • Born before 1957 • MD diagnosed mumps • Two doses of M or MMR • Positive serology (titer)
<u>Rubella (German Measles)</u>	Documentation of immunity: <ul style="list-style-type: none"> • One dose of MR or MMR Or <ul style="list-style-type: none"> • Positive serology (titer)

<u>Rubeola (Red Measles)</u>	Documentation of immunity: Born <1957: <ul style="list-style-type: none"> • Reliable history of measles or MD diagnosis • Positive serology (titer) • One dose vaccine Born in or >1957: <ul style="list-style-type: none"> • MD diagnosed measles • Two doses vaccine Or <ul style="list-style-type: none"> • Positive serology (titer)
<u>Hepatitis B (if job duties put a person at risk of exposure to blood or body fluid)</u>	Documentation of immunity: <ul style="list-style-type: none"> • History of disease • Positive serology (titer) • History of HB vaccine (all three or two shots) • Signed waiver declining vaccination
<u>Pertussis (Tdap)</u>	Documentation of vaccine: <ul style="list-style-type: none"> • One dose of adult Tdap
<u>Influenza</u>	Annual vaccine or declination
<u>COVID</u>	Documentation of vaccine

Program Admission Dates (Fall and/or Spring)

Fall

Program Director Contact Information

Stacy Hammett, MS, MT(ASCP) MLT/Phlebotomy Program Director

Email: stacy.hammett@southcentral.edu

Phone: 507-389-7461

Program Location (North Mankato and/or Faribault)

North Mankato

Program Student Learning Outcomes

- 1 Demonstrate standard safety practices designed for the clinical laboratory professions.
- 2 Perform basic phlebotomy procedures that include both venipuncture and capillary techniques.
- 3 Demonstrate multi-tasking skills where a wide variety of testing procedures are performed.
- 4 Demonstrate standard quality assurance practices to ensure quality patient outcomes.
- 5 Demonstrate proper procedures in maintenance, calibration, operation, and troubleshooting of

laboratory analyzers and equipment.

6 Correlate pathologic conditions and the laboratory's role in diagnosis and treatment.

Program Configurations

Five Semesters

Credits

Technical Course	50
Arts & Sciences	15

Total Credits	65
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Pre-MLT

Course #	Course Title	Credits	Function
MDLT 1810	Laboratory Techniques & Orientation	3	Technical Course
CHEM Option	CHEM 108 Introduction to Chemistry OR CHEM 110 Chemistry for the Health Sciences	4	Arts & Sciences
BIOL 162	Human Biology	4	Arts & Sciences
HC 1000	Medical Terminology I	3	Technical Course

MLT Year 1 - Semester 1

Course #	Course Title	Credits	Function
MDLT 1815	Hematology I	3	Technical Course
MDLT 2817	Chemistry I	4	Technical Course
OTEC 1001	Computer Software for College	2	Technical Course
MDLT 2811	Microbiology I	3	Technical Course

MLT Year 1 - Semester 2

Course #	Course Title	Credits	Function
MDLT 1820	Coagulation	2	Technical Course
MDLT 1830	Hematology II	3	Technical Course
MDLT 2818	Chemistry II	3	Technical Course
MDLT 2821	Microbiology II	3	Technical Course
MDLT 2806	Immunohematology I	2	Technical Course

MLT Year 2 - Semester 3

Course #	Course Title	Credits	Function
PSYC Option	PSYC 100 Introduction to Psychology OR or PSYC 140 Psychology of Positive	4	Arts & Sciences

	Adjustment		
COMM Option	COMM 110 Public Speaking OR COMM 140 Interpersonal Communication	3	Arts & Sciences
MDLT 1825	Urinalysis and Body Fluids	3	Technical Course
MDLT 1835	Immunology	2	Technical Course
MDLT 2807	Immunohematology II	2	Technical Course

MLT Year 2 - Semester 4

Course #	Course Title	Credits	Function
MDLT 2826	Clinical: Hematology & Coagulation	2	Technical Course
MDLT 2827	Clinical: Chemistry & Immunology	2	Technical Course
MDLT 2828	Clinical: Immunohematology	2	Technical Course
MDLT 2829	Clinical: Microbiology	3	Technical Course
MDLT 2830	Clinical: Urinalysis/Body Fluids	1	Technical Course
MDLT 2831	Clinical: Phlebotomy	1	Technical Course
MDLT 2825	Clinical Practice and Orientation	1	Technical Course

Program Course List

Number	Title	Credits	Pre/Corequisites
BIOL 162	Human Biology	4	Reading Comprehension Score of 78 or above or READ 0090.
CHEM 108	Introduction to Chemistry	4	Math 0085 or a score of 75.5 or higher on the elementary algebra portion of the accuplacer test.
CHEM 110	Chemistry for the Health Sciences		Prerequisite: MATH 0085 or a score of 75.5 or higher on the Elementary Algebra portion of the Accuplacer test; READ 0090 or a score of 77.5 or higher on the reading portion of the Accuplacer test.
COMM 110	Public Speaking	3	Score of 86 on the Sentence Skills portion of the Accuplacer or ENGL 0090 with a C or higher.
COMM 140	Interpersonal Communication	3	Accuplacer Reading Score of 78 or above or completion of READ 0090
HC 1000	Medical Terminology I	3	None
MDLT 1810	Laboratory Techniques & Orientation	3	None
MDLT 1820	Coagulation	2	MDLT 1810, & MDLT 1815 with a grade of C or higher.
MDLT 1825	Urinalysis and Body Fluids	3	MDLT 1810 & MDLT 2818 with a grade of C or higher.

MDLT 1830	Hematology II	3	MDLT 1810 & MDLT 1815 with a grade of C or higher.
MDLT 1835	Immunology	2	MDLT 1810 & MDLT 2818 with a grade of C or higher.
MDLT 2806	Immunohematology I	2	MDLT 1810, & MDLT 1815 with a grade of C or higher.
MDLT 2807	Immunohematology II	2	MDLT 1810 and MDLT 2806 with a grade of C.
MDLT 2811	Microbiology I	3	May be taken concurrently with MDLT 1810 or with Program Director permission.
MDLT 2817	Chemistry I	4	MDLT 1810 may also be taken concurrently or with Program Director permission
MDLT 2818	Chemistry II	3	MDLT 1810 & MDLT 2817 with a grade of C or higher.
MDLT 2821	Microbiology II	3	MDLT 1810 and MDLT 2811 with a grade of C or higher.
MDLT 2825	Clinical Practice and Orientation	1	Prerequisites: MDLT 1825, MDLT 1835, and MDLT 2807
MDLT 2826	Clinical: Hematology & Coagulation	2	MDLT 1825, MDLT 1835, and MDLT 2807
MDLT 2827	Clinical: Chemistry & Immunology	2	MDLT 1825, MDLT 1835, and MDLT 2807
MDLT 2828	Clinical: Immunohematology	2	MDLT 1825, MDLT 1835, and MDLT 2807
MDLT 2829	Clinical: Microbiology	3	MDLT 1825, MDLT 1835, and MDLT 2807
MDLT 2830	Clinical: Urinalysis/Body Fluids	1	MDLT 1825, MDLT 1835, and MDLT 2807
MDLT 2831	Clinical: Phlebotomy	1	MDLT 1825, MDLT 1835, and MDLT 2807
OTEC 1001	Computer Software for College	2	None
PSYC 100	Introduction to Psychology	4	Must have a score of 78 or higher on the Reading portion of the Accuplacer test or completion of READ0090 with a grade of C (2.0) or higher.
PSYC 140	Psychology of Positive Adjustment	4	Accuplacer Reading Comprehension Score of 78 or above or completion of READ90