Academic Plan - Associate of Applied Science Medical Laboratory Technology

**Catalog Year: 2019/2020**

**Total Credits:63**

The Associate of Applied Science (AAS) degree in Medical Laboratory Technology is designed to prepare qualified technicians to perform a variety of complex laboratory tests which play an important role in the detection, diagnosis, and treatment of many diseases and in the promotion of health. Upon successful completion of the program, graduates are eligible to take national examinations to become certified Medical Laboratory Technicians.

As a certified MLT, employment is available in hospitals and clinics as well as veterinary, industrial and environmental laboratories in Colorado or in other states.

The MLT Program is delivered in an online/hybrid format and is available in a 1-year fast track option and 2-year traditional route. More than two years may be taken to complete the program. Students may begin general education classes at any time, according to published semester schedules. All MLT didactic courses are offered in a hybrid format. Student lab sessions meet on select Fridays from 4:30 pm to 8:30 pm and on Saturdays 9:30 am to 4:30 pm.

The program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

# General Education Courses

3 Credits, CIS 118 - Intro to PC Applications, available fall spring summer

3 Credits, COM 115 - Public Speaking\* OR COM 125 - Interpersonal Communication, available fall spring summer

3 Credits, ENG 121 - English Composition GT-CO1 OR ENG 131 - Technical Writing GT-CO1\*, available fall spring summer

3 Credits, HPR 178 - Medical Terminology, available fall spring summer

4 Credits, BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1\*, available fall spring summer

4 Credits, BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1, available fall spring summer

5 Credits, CHE 101 - Introduction to Chemistry I w/Lab OR CHE 111 General College Chemistry w/Lab\*, available fall spring summer

# Major Courses

1 Credits, MLT 180 - Internship I / Blood Banking, available summer

1 Credits, MLT 253 - Seminar/Comprehensive Exams, available summer

2 Credits, MLT 131 - Hematology I, available fall

2 Credits, MLT 142 - Urinalysis, available spring

2 Credits, MLT 232 - Parasitology/Mycology, available fall

2 Credits, MLT 241 - Clinical Chemistry I, available spring

2 Credits, MLT 282 - Internship IV / Microbiology, available summer

4 Credits, MLT 132 - Hematology II, available fall

4 Credits, MLT 141 - Immunohematology/Immunology, available spring

4 Credits, MLT 231 - Clinical Microbiology, available fall

4 Credits, MLT 242 - Clinical Chemistry II, available spring

5 Credits, MLT 182 - Internship II /Hematology, Coagulation & Urinalysis, available summer

5 Credits, MLT 280 - Internship III /Clinical Chemistry, available summer

# Pre-Requisites, Co-Requisites, and Recommendations

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1\*

Pre-Requisite: BIO 111 - General College Biology I with Lab: GT-SC1 OR Score of 75+ on Biology Placement Test

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Pre-Requisite: BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

CIS 118 - Intro to PC Applications

Requirement: Students must have Windows file management skills to create file folders, rename files, delete

MLT 132 - Hematology II

Pre-Requisite OR Co-Requisite: BIO 201 - Human Anatomy and Physiology GT SCI OR BIO 106 - Basic Human

Pre-Requisite: MLT 131 - Hematology I

MLT 141 - Immunohematology/Immunology

Co-Requisite: BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Pre-Requisite: BIO 201 - Human Anatomy and Physiology GT SCI OR BIO 106 - Basic Human Anatomy and

Pre-Requisite: MLT 131 - Hematology I

Pre-Requisite: MLT 132 - Hematology II

MLT 180 - Internship I / Blood Banking

Pre-Requisite: MLT 141 - Immunohematology/Immunology

MLT 182 - Internship II /Hematology, Coagulation & Urinalysis

Pre-Requisite: MLT 131 - Hematology I

Pre-Requisite: MLT 132 - Hematology II

Pre-Requisite: MLT 142 - Urinalysis

MLT 231 - Clinical Microbiology

Co-Requisite: MLT 232 - Parasitology/Mycology

Pre-Requisite: BIO 201 - Human Anatomy and Physiology GT SCI OR BIO 202 - Human Anatomy and Physiology II

MLT 232 - Parasitology/Mycology

Co-Requisite: MLT 231 - Clinical Microbiology

Pre-Requisite: BIO 201 - Human Anatomy and Physiology GT SCI OR BIO 202 - Human Anatomy and Physiology II

MLT 242 - Clinical Chemistry II

Pre-Requisite OR Co-Requisite: MLT 241 - Clinical Chemistry I

Pre-Requisite: CHE 101 - Introduction to Chemistry I w/Lab OR CHE 111 - General College Chemistry I with Lab:

MLT 280 - Internship III /Clinical Chemistry

Pre-Requisite: MLT 241 - Clinical Chemistry I

Pre-Requisite: MLT 242 - Clinical Chemistry II

MLT 282 - Internship IV / Microbiology

Pre-Requisite: MLT 231 - Clinical Microbiology

Pre-Requisite: MLT 232 - Parasitology/Mycology

# Program Outcomes

Demonstrate entry-level Medical Laboratory Technology skills in the following clinical laboratory areas: Blood Bank, Chemistry, Hematology, Immunology, Microbiology, Urinalysis/Body Fluids and Laboratory Operations.

Display professional laboratory safety procedures.

Communicate and collaborate within a medical laboratory setting.

# Notes

Fast Track Program: The one-year Fast-Track program is available for students who have all General Education courses completed prior to enrolling in any MLT courses.

Course availability is subject to change.

Refer to 19/20 catalog for specific requirements and important information about this degree.

Recommended courses may be listed above for certain electives; consult with the Academic Advising Office (advising@arapahoe.edu or 303.797.5664) for additional elective recommendations.

\*This course requires college level readiness as measured by Accuplacer, ACT, or SAT scores; approved high school course work that is less than five years old; or successful completion of appropriate college-readiness course.

AAA 101 – College 101: Student Experience is required for all new college students seeking degrees or transfer.

# Graduation Requirements

All courses must be completed with a grade of “C” or better.

All MLT courses must have been completed within five years of graduation.

BIO 201 and BIO 202 must have been completed within ten years of graduation.

CIS 118 must have been completed within six years of graduation.

To graduate, students must apply for graduation (form available at www.arapahoe.edu/departments-and-programs/graduation) by the deadline and meet all degree requirements.

# RECOMMENDED COURSE SEQUENCE FULL-TIME TRACK

## Year 1: Fall

4 Credits, BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

3 Credits, HPR 178 - Medical Terminology

2 Credits, MLT 131 - Hematology I

4 Credits, MLT 132 - Hematology II

## Year 1: Spring

4 Credits, BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

3 Credits, COM 115 - Public Speaking OR COM 125 - Interpersonal Communication

4 Credits, MLT 141 - Immunohematology/Immunology

2 Credits, MLT 142 - Urinalysis

## Year 1: Summer

1 Credits, MLT 180 - Internship I / Blood Banking

5 Credits, MLT 182 - Internship II /Hematology, Coagulation & Urinalysis

## Year 2: Fall

5 Credits, CHE 101 - Introduction to Chemistry I w/Lab OR CHE 111 General College Chemistry w/Lab

3 Credits, ENG 121 - English Composition GT-CO1 OR ENG 131 - Technical Writing GT-CO1

4 Credits, MLT 231 - Clinical Microbiology

2 Credits, MLT 232 - Parasitology/Mycology

## Year 2: Spring

3 Credits, CIS 118 - Intro to PC Applications

2 Credits, MLT 241 - Clinical Chemistry I

4 Credits, MLT 242 - Clinical Chemistry II

## Year 2: Summer

1 Credits, MLT 253 - Seminar/Comprehensive Exams

5 Credits, MLT 280 - Internship III /Clinical Chemistry

2 Credits, MLT 282 - Internship IV / Microbiology

# RECOMMENDED COURSE SEQUENCE PART-TIME TRACK

## Year 1: Fall

2 Credits, MLT 131 - Hematology I

4 Credits, MLT 132 - Hematology II

4 Credits, MLT 231 - Clinical Microbiology

2 Credits, MLT 232 - Parasitology/Mycology

## Year 1: Spring

4 Credits, MLT 141 - Immunohematology/Immunology

2 Credits, MLT 142 - Urinalysis

2 Credits, MLT 241 - Clinical Chemistry I

4 Credits, MLT 242 - Clinical Chemistry II

## Year 1: Summer

1 Credits, MLT 180 - Internship I / Blood Banking

5 Credits, MLT 182 - Internship II /Hematology, Coagulation & Urinalysis

1 Credits, MLT 253 - Seminar/Comprehensive Exams

5 Credits, MLT 280 - Internship III /Clinical Chemistry

2 Credits, MLT 282 - Internship IV / Microbiology