Associate of Applied Science in Medical Laboratory Technology

The National Accrediting Agency for Clinical Laboratory Sciences provides the following description: At career entry, the medical laboratory technician will be able to perform routine clinical laboratory tests (such as hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, coagulation, molecular and other emerging diagnostics) as the primary analyst making specimen-oriented decisions on predetermined criteria, including a working knowledge of critical values. Communication skills will extend to frequent interactions with members of the health care team, external relations, customer service and patient education. The level of analysis ranges from waived and point-of-care testing to complex testing encompassing all major areas of the clinical laboratory. The medical laboratory technician will have diverse functions in areas of pre-analytical, analytical and post-analytical processes. The medical laboratory technician will have responsibilities for information processing, training and quality control monitoring wherever clinical laboratory testing is performed.

Upon graduation and initial employment, the medical laboratory technician should be able to demonstrate entry-level competencies in the above areas of professional practice. Graduates are eligible to sit for national certification examinations in medical laboratory technology.

The medical laboratory technician performs testing in urinalysis, hematology, microbiology, transfusion services, and clinical chemistry. This provides valuable patient information to assist in medical diagnosis and treatment. The medical laboratory technology program prepares students to become skilled members of the healthcare team.

The Associate of Applied Science (AAS) in Medical Laboratory Technology is accredited through the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

The AAS in Medical Laboratory Technology articulates with the Bachelor of Science (BS) in Medical Laboratory Science.

Admission Requirements

- Complete the Admission Requirements for Associate Degrees (http://catalog.uaa.alaska.edu/academicpoliciesprocesses/admissions/undergraduate/).
- Complete, or be in the progress of completing, the following courses with a minimum grade of C within two attempts:
  - BIOL A111 and BIOL A111L
  - BIOL A112 and BIOL A112L
  - CHEM A103 and CHEM A103L, or CHEM A105 and CHEM A105L
  - CHEM A104 and CHEM A104L, or CHEM A106 and CHEM A106L and CHEM A321
  - Submit documentation of a minimum cumulative GPA of 2.50 including all transfer coursework
  - Submit a medical laboratory technology application according to instructions and deadlines on the program website (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-allied-health/medical-laboratory-science/)
- All students will initially be admitted to a pre-major status. Admission to the pre-major status does not guarantee subsequent admission to the major. As a pre-major, students work with an advisor to assist them in completing pre-major requirements and preparing to apply to the full major.

Special Considerations

Prior to beginning practicum courses, students must provide documentation of:

- The following immunizations: Hepatitis B titer showing immunity, Hepatitis A, MMR, TDap, Varicella, Influenza vaccine within the previous twelve months, and two-step PPD test or Quantiferon Gold
- Current Basic Life Support certification
- State of Alaska Background Check
- Current health insurance (must be maintained throughout time in practicum)

Practicum sites may establish additional requirements including, but not limited to, drug screening and health physicals.

Graduation Requirements

- Complete the General University Requirements for Associate Degrees (http://catalog.uaa.alaska.edu/undergraduateprograms/aasrequirements/).
- Complete the General Education Requirements for Associate of Applied Science Degrees (http://catalog.uaa.alaska.edu/undergraduateprograms/aasrequirements/generaleducationrequirements/).
  - For the Quantitative Skills requirement, MATH A105 or higher is recommended.
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
CHEM A103 & A103L	Introduction to General Chemistry and Introduction to General Chemistry Laboratory	4
or CHEM A105 & A105L	General Chemistry I and General Chemistry I Laboratory	

CHEM A104 & A104L	Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Laboratory	4-7
or CHEM A106 & A106L & CHEM A321	General Chemistry II and General Chemistry II Laboratory and Organic Chemistry I	
MEDT A132 & A132L	Phlebotomy and Specimen Processing Techniques and Phlebotomy and Specimen Processing Techniques Lab	4
MEDT A133	Basic Techniques in Laboratory Medicine	2
MEDT A134	Immunology and Serology	3
MEDT A202	Clinical Chemistry	4
MEDT A203	Clinical Microbiology	6
MEDT A204	Hematology and Coagulation	6
MEDT A208	Urine and Body Fluid Analysis	3
MEDT A211	Blood Banking	4
MEDT A250	Cultural Diversity in Health Care	1
MEDT A395	Medical Laboratory Technology Practicum	12
Total		**61-64**

A minimum of 73 credits is required for the degree.

Program Student Learning Outcomes

At career entry, the medical laboratory technician as part of the healthcare team, will be able to:

- Perform routine clinical laboratory tests in the area of urinalysis, hematology, clinical chemistry, transfusion services, and microbiology
- Demonstrate professional and communication skills to support interaction with members of the medical team, customer service, patient care and education
- Demonstrate safety standards according to Occupational Safety and Health Administration, American Association of Blood Banks, American Society for Clinical Pathology and Clinical Laboratory Improvement Amendments
- Demonstrate ethical behavior in the hospital or clinical settings.

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (http://catalog.uaa.alaska.edu/academicpoliciesprocesses/academicstandardsregulations/courseplacement/), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER**: indicates a General Education Requirement (http://catalog.uaa.alaska.edu/undergraduateprograms/baccalaureaterequirements/gers/). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective**: indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective**: indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective**: indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective**: indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall		**Credits**
BIOL A111 & A111L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Lab	4
CHEM A103 & A103L	Introduction to General Chemistry and Introduction to General Chemistry Laboratory	4
MATH A151	College Algebra for Calculus	4
GER Written Communication Skills		3
	Credits	**15**
Spring		
BIOL A112 & A112L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab	4
CHEM A104 & A104L	Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Laboratory	4
GER Oral Communication Skills		3
GER Written Communication Skills		3
	Credits	**14**

Second Year		
Fall		
MEDT A132 & A132L	Phlebotomy and Specimen Processing Techniques and Phlebotomy and Specimen Processing Techniques Lab	4
MEDT A133	Basic Techniques in Laboratory Medicine	2
MEDT A134	Immunology and Serology	3
MEDT A250	Cultural Diversity in Health Care	1
	Credits	**10**
Spring		
MEDT A204	Hematology and Coagulation	6
MEDT A211	Blood Banking	4
	Credits	**10**
Third Year		
Fall		
MEDT A202	Clinical Chemistry	4
MEDT A203	Clinical Microbiology	6
MEDT A208	Urine and Body Fluid Analysis	3
	Credits	**13**
Spring		
MEDT A395	Medical Laboratory Technology Practicum [1]	12
	Credits	**12**
	Total Credits	**74**

[1] *Students cannot take any additional UAA courses while enrolled in MEDT A395.*