GENERAL STUDIES, MEDICAL LABORATORY TECHNOLOGY PATHWAY

Associate of Science

The Associate of Science in Medical Laboratory Pathway transfers towards a Bachelor of Science in Clinical Laboratory Science program. This pathway will not guarantee acceptance into the AAS Medical Laboratory Technology program at Dalton State. Dalton State MLT candidates must successfully complete all pre-requisite courses and apply to be accepted into the AAS Medical Laboratory Technology program.

The following courses are prerequisite for the AAS Medical Laboratory Technology program and also apply to Core IMPACTS requirements. These courses require grades of C or better:

ENGL 1101

ENGL 1102

HIST 2111 or 2112

CHEM 1211K

COMM 1110

MATH 1111 or 1113

POLS 1101

The following courses are prerequisites for the AAS Medical Laboratory Technology program:

BIOL 2252K (Grade C or better required)

NOTE: It is highly recommended that most, if not all, prerequisites be completed before starting the AAS-MLT program, but at least MATH 1111 and BIOL 2252K.

Program Course Requirements

Click here to view Core IMPACTS General Education Curriculum requirements (http://catalog.daltonstate.edu/programs/coreimpacts/).

Program Advice (can share with Core IMPACTS curriculum):		
COMM 1110	Fundamentals of Speech (Grade of C or better required)	3
MATH 1111	College Algebra (Grades of C or better required)	3
or MATH 1113	Precalculus Mathematics	
POLS 1101	American Government (Grade of C or better required)	3
HIST 2111	United States History to 1877 (Grades of C or better required)	3
or HIST 2112	United States Hist since 1877	
CHEM 1211K	Principles of Chemistry I (Grade of C or better required)	4
CHEM 1212K	Principles of Chemistry II	4
BIOL 1107K	Principles of Biology I	4

Click here to view Core IMPACTS General Education Curriculum requirements (http://catalog.daltonstate.edu/programs/coreimpacts/).

Core IMPACTS General Education Curriculum requirements		**42**
NOTE: Core IMPACTS courses can also satisfy requirements in your Program of Study. Please review the requirements for your major to prevent taking extra courses. The USG Core IMPACTS curriculum is designed to ensure that students acquire essential knowledge in foundational academic areas and develop career-ready competencies. There are seven Core IMPACTS areas. Students at all USG institutions must meet the Core IMPACTS requirements in all specified areas.		
Field of Study: Major Related		
BIOL 2251K	Anatomy and Physiology I	4
BIOL 2252K	Anatomy and Physiology II *	4
MLTS 1101	Intro to Health Sci/Phlebotomy **	3
Electives:		
Choose 6 credits of electives from an math and/or science courses.		6
One credit hour from BIOL 1107K used toward 18 credit hour Field of Study requirement.		1
Total Hours		**60**

* Grade of C or better required.
** Grade of B or better required.

Courses

MLTS 1101. Intro to Health Sci/Phlebotomy. 3-1-3 Units.
The student is introduced to the health sciences environment and language. The hospital as an organization is discussed, as well as the role of each major department. The concepts, personnel, and work flow of the clinical laboratory is discussed in detail, as an example of health care application. Other topics include professional ethics, regulatory agencies, legal concepts as applied to confidentiality and patients rights, infection control, and safety. Students will learn venipuncture/capillary puncture techniques, equipment, application, and specimen processing. Enrollment is limited to students of the Medical Laboratory or Phlebotomy programs. (Career Course)

MLTS 1102. Phlebotomy Clinical Practicum. 1-11-5 Units.
Students receive clinical application of the venipuncture and micropuncture skills learned in MLTS 1101. Five days per week students are assigned to an area hospital where they work under the direct supervision of a preceptor. Students return to campus one afternoon per week for problem-solving and review. (Career Course)
Prerequisites: ALHT 1130, CAPS 1101, MLTS 1101, and BIOL 1100 with a grade of C or better.

MLTS 1103. Hematology/Coagulation I. 2-0-3 Units.
Introduces the fundamental formation of normal blood cells and some disease states related to hematopoiesis. Safety and quality control are also included throughout the course. Instrumentation relating to hematology is introduced. (Career Course)

MLTS 1104. Hematology/Coagulation II. 2-2-3 Units.
Coagulation and related diseases, instrumentation relating to coagulation, critical level, blood cell dyscrasias, special stains, leukemias/lymphomas, flow cytometry, safety and quality control are covered. (Career Course)
Prerequisites: MLTS 1103.

MLTS 1105. Serology/Immunology. 2-2-3 Units.
Introduces the fundamental theory and techniques applicable to serology and immunology practice in the clinical laboratory. Topics include: immune system, antigen and antibody reactions, common clinical applications, serological/microbiological applications, common serological techniques, and safety and quality control. (Career Course)
Prerequisites: BIOL 2260K or BIOL 2252K.

MLTS 1106. Blood Bank. 2-2-3 Units.
Provides an in-depth study of immunohematology principles and practices as applicable to medical laboratory technology. Topics include: genetic theory and clinical implications, immunology, donor collection, pre-transfusion testing, management of disease statistics, and safety and quality control. (Career Course)
Prerequisites: BIOL 2260K or BIOL 2252K.

MLTS 1107. Clinical Chemistry. 3-2-4 Units.
Develops concepts and techniques of clinical chemistry applicable to medical laboratory technology. Topics include: carbohydrates, electrolytes and acid-base balance, nitrogenous compounds, enzymes and endocrinology, bilirubin metabolism, lipids, toxicology and therapeutic drug monitoring, and safety and quality control. (Career Course)
Prerequisites: CHEM 1211K.

MLTS 1112. Urinalysis/Parasitology. 2-2-3 Units.
Provides theory and techniques of urinalysis. Urinalysis topics include: significance, correlation to disease states, physical, chemical and microscopic urinalysis theory and practice. Selected types of other body fluids will be discussed to discover their significance and uses in disease correlation. This class also introduces concepts and techniques used in the identification of selected human parasites. (Career Course)

MLTS 1118. Instrumentation/Computer Appli. 2-2-3 Units.
Clinical Laboratory provides an introduction to basic physics concepts used in clinical laboratory instrumentation. Examines, in detail, selected equipment in the laboratory representing the principles of cell counting, spectrophotometry, continuous-flow analysis, and radioimmunoassay. Computer concepts, applications, and interfacing with laboratory instrumentation is introduced. Satisfies the computer literacy requirement. (Career Course)
Prerequisites: MLTS 1101 and MLTS 1105.

MLTS 1190. MLT Clinical Practicum I. 0-3-1 Unit.
Introduces Medical Laboratory Technician students to the hospital environment. Students gain experience with venipuncture and microcapillary techniques while working under the direction of a hospital preceptor. (Career Course)
Prerequisites: MLTS 1101 or permission of instructor.

MLTS 1191. MLT Clinical Practicum II. 0-3-1 Unit.
Resumes the clinical experience begun in Medical Laboratory Technology 1190. Students rotate through selected departments in the clinical laboratory to apply and complement concepts and applications learned in previous Medical Laboratory Technology courses. Introduces students to problem solving at the clinical level. (Career Course)
Prerequisites: MLTS 1101, MLTS 1104, MLTS 1105, MLTS 1190.

MLTS 2218. Microbiology. 2-4-4 Units.
Introduces fundamental clinical microbiology theory and techniques applicable to disease state identification. Topics include: isolation techniques, biochemical techniques, anti-microbial sensitivity, safety and quality control, and disease processes. (Career Course)
Prerequisites: BIOL 2215K or BIOL 2252K.

MLTS 2290. MLT Clinical Practicum III. 1-32-12 Units.
Full-time supervised experience in an affiliated clinical laboratory. Students will rotate among designated laboratory sections where they will work side by side with, and be under the supervision of, medical technologists and the laboratory director, to develop professional skills in the practice of medical laboratory technology. (Career Course)

MLTS 2291. MLT Clinical Practicum IV. 0-12-4 Units.
Full-time supervised experience in an affiliated clinical laboratory. Students will rotate among designated laboratory sections where they will work side by side with, and be under the supervision of medical technologists and the laboratory director, to develop professional skills in the practice of medical laboratory technology. (Career Course)
Prerequisites: MLTS 2290 with a grade of C or better.