MEDICAL LABORATORY SCIENCE, BACHELOR OF SCIENCE (5004)

Program Coordinator
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With the aging of our population, it is estimated that health care will be a major service industry in our country. An important part of health care is Medical Laboratory Science, formally known as Medical Technology, a profession that includes well-trained, highly educated individuals who are the fact-finders of the medical world. Medical Laboratory Scientists typically analyze body fluids, examine tissues, and identify specific microorganisms to find evidence for and the cause of specific diseases such as AIDS, Diabetes, and Cancer. Some of the exciting new demands of the profession include tissue typing for organ transplantation, chromosomal studies as a basis for genetic counseling, identification of environmental pollutants, and screening tests for accidental poisoning and drug abuse. The demand for graduates in this field is very high. The U.S. Bureau of Labor Statistics continues to project a need for new Medical Laboratory Scientists to meet medical demands of an aging population.

Although two-thirds of Medical Laboratory Scientists work in hospital laboratories, new sources of employment include laboratories in physician's offices, research facilities in universities and industries, public health centers, and veterinary clinics.

The Medical Laboratory Science program combines a minimum of three years (96 semester hours) of college courses at Western Kentucky University with a minimum of 12 calendar months (36 semester hours) of satisfactory clinical training in a school of Medical Laboratory Science (Medical Technology). This school must be approved by the Committee on Allied Health Education and Accreditation of the American Medical Association and by the medical technology coordinator at Western Kentucky University.

Coursework for this major requires a minimum of 82 hours (36 of which are completed at a Medical Laboratory Science school and transferred back to the Department of Biology) and leads to a B.S. degree in Medical Laboratory Science. No minor, second major, or certificate is required. A student must meet all of the Colonnade Requirements for the bachelor's degree at Western Kentucky University before admission to the clinical year at the affiliated school of Medical Laboratory Science (Medical Technology). Upon satisfactory completion of the course requirements in medical laboratory science, the Bachelor of Science degree will be awarded by Western Kentucky University. Graduates of the medical laboratory science program are eligible to take national credentialing examinations for medical technologists which result in membership in the American Society of Clinical Pathologists (A.S.C.P.). The program is affiliated with the following schools of medical technology: Bellarmine University, Louisville, KY; Owensboro Medical Health System, Owensboro, KY; Vanderbilt Medical Center, Nashville, TN; and St. Elizabeth Medical Center, Covington, KY.

Program Requirements (82 hours)

A baccalaureate degree requires a minimum of 120 unduplicated semester hours. More information can be found at www.wku.edu/registrar/degree_certification.php. (https://www.wku.edu/registrar/degree_certification.php)

Students who began WKU in the Fall 2014 and thereafter should review the Colonnade requirements located at: https://www.wku.edu/colonnade/colonnaderequirements.php. (https://www.wku.edu/colonnade/colonnaderequirements.php)

Code	Title	Hours
Required Courses:		
BIOL 120 & BIOL 121	Biological Concepts: Cells Metabolism and Genetics and Biological Concepts: Cells, Metabolism, and Genetics Lab	4
BIOL 122 & BIOL 123	Biological Concepts: Evolution, Diversity, and Ecology and Biological Concepts: Evolution, Diversity, and Ecology Lab	4
BIOL 224 & BIOL 225	Animal Biology and Diversity and Animal Biology and Diversity Lab	4
BIOL 226 & BIOL 227	Microbial Biology and Diversity and Microbial Biology and Diversity Lab	4
Select one of the following:		4
BIOL 319 & BIOL 322	Introduction to Molecular and Cell Biology and Introduction to Molecular and Cell Biology Laboratory	
BIOL 327 & BIOL 337	Genetics and Genetics Laboratory	
BIOL 328	Immunology	3
CHEM 120 & CHEM 121	College Chemistry I and College Chemistry I Laboratory	5
CHEM 222 & CHEM 223	College Chemistry II and College Chemistry II Laboratory	5
BIOL/CHEM 446	Biochemistry I	3
CHEM 340 & CHEM 341	Organic Chemistry I and Organic Chemistry Laboratory I	5
MATH 118	College Algebra and Trigonometry	5
or MATH 116 & MATH 117	College Algebra and Trigonometry	
Clinical training at a Medical Laboratory School		36
Total Hours		**82**

More detailed information including Colonnade (general education) requirements can be obtained from the coordinator. Students must consult the coordinator regarding applying for admission to the medical technology schools. Application is made 9 to 12 months in advance of the beginning date for the medical technology school. Admission to these schools is on a competitive basis, and maintenance of a good academic standing is required. Students are required to have liability insurance for their clinical years.

Finish in Four Plan

First Year

Fall	Hours	Spring	Hours
BIOL 120 & BIOL 121	4	BIOL 122 & BIOL 123	4

MATH 116 (or higher)	3	MATH 117 (or higher)	3				
ENG 100	3	Colonnade - Explorations	3				
Colonnade - Explorations	3						
Colonnade - Explorations	3	CHEM 120 & CHEM 121	5				
	16		**15**				

Second Year

Fall	Hours	Spring	Hours				
BIOL 224 & BIOL 225	4	BIOL 328	3				
ENG 200	3	BIOL 226 & BIOL 227	4				
BIOL 327 & BIOL 337 (or BIOL 319/322)	4	COMM 145	3				
BIOL upper-division Elective	3	CHEM 222 & CHEM 223	5				
Colonnade - Explorations	3	BIOL upper-division Elective	3				
	17		**18**				

Third Year

Fall	Hours	Spring	Hours	Summer	Hours	
CHEM 340 & CHEM 341	5	CHEM 446 or BIOL 446	3	BIOL 492		4
BIOL upper-division Elective	3	HIST 101 or HIST 102	3			
World Language or Elective	3	BIOL upper-division Elective	3			
Colonnade - Writing in the Disciplines	3	Colonnade - Connections	3			
Colonnade - Connections	3	Colonnade - Connections	3			
	17		**15**			**4**

Fourth Year

Fall	Hours	Spring	Hours	Summer	Hours	
BIOL 493	14	BIOL 494	14	BIOL 492		4
	14		**14**			**4**

Total Hours 134