

**Medical Laboratory Sciences (Updated June 2020)**  
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Medical Laboratory Sciences is a profession which is practiced almost exclusively in hospitals or diagnostic clinics. Medical laboratory scientists perform laboratory tests on blood and body fluids to determine the presence or absence of disease, to monitor the response of treatment and to assist in health maintenance.

The Ellis College of Arts and Sciences, in cooperation with the Baptist Health College Little Rock, offers a Bachelor of Science degree in medical laboratory science. Three years of the program are obtained on the Henderson campus. The fourth year is completed at the Baptist Health College in Little Rock.

Upon completion of the fourth year clinical program, the graduate is eligible to apply for the various certification examinations.

**Degree Requirements:**

1. Completion of a minimum of 90 semester hours described below with at least a 2.00 GPA is necessary for application to the clinical curriculum. In order to receive credit toward a degree from the university, the student must apply and be admitted to Henderson prior to enrolling in the clinical curriculum in medical laboratory science. In all cases, students will be required to complete nine months of residence at Henderson State University with a minimum of 30 hours of residence credit.
2. Acceptance into the clinical program in medical laboratory science at Baptist Health College LR.
3. Completion of the clinical curriculum with a minimum GPA of 2.00.

<b>On-Campus Curriculum</b>	<b>Hours</b>
A. General Education Component .....	38
B. Specific General Education and Other Required Courses:	
BIO 2114, 2094, 3544, and 4 hours Jr.-Sr. electives .....	16
CHM 1014, 1024, 2084, 3051, and 3063, and 3073, 3131 .....	20
Electives .....	16
Total Hours .....	90

Recommended Electives: Parasitology (BIO 3444), Biochemistry (CHM 4283), and Introduction to Computers (CSC 2003). Baptist Health College LR requires both semesters of Human Anatomy & Physiology (BIO3544 & 3554) for acceptance into the professional program.

A minor is required for graduation from Henderson. A minor in biology is obtained by taking CHM2104 Botany. A minor in chemistry is obtained by taking the 19 hours of required courses listed above.

<b>Clinical Curriculum at Baptist Health College LR</b>	<b>Hours</b>
Seminar I - Laboratory Fundamentals .....	1
Seminar II.....	2
Immunology .....	2
Management and Educational Topics.....	1
Body Fluids .....	1
Immunohematology .....	2
Clinical Microbiology .....	4
Clinical Chemistry .....	4
Hematology .....	4
Internship I .....	4
Internship II.....	4
Internship III .....	3
Internship IV .....	6
Total Hours .....	38

## **Clinical Courses in Medical Laboratory Science**

**MTC 4001. Seminar I - Laboratory Fundamentals.** Introduction to the hospital laboratory including phlebotomy and medical terminology; attendance at laboratory in service.

**MTC 4312. Seminar II.** Attendance at laboratory inservice; presentation of inservice including visual aids; review for comprehensive exam.

**MTC 4102. Immunology.** Principles of basic immunoglobulin structure and antigen-antibody reactions with application to clinical immunology procedures.

**MTC 4401. Management and Educational Topics.** Introduction to basic principles of management and educational principles.

**MTC 4201. Body Fluids.** Chemical, physical and microscopic study of urine, cerebrospinal and other body fluids.

**MTC 4222. Immunohematology.** Genetic theory of human blood groups and fundamentals of transfusion practice and components therapy.

**MTC 4114. Clinical Microbiology.** Study of human pathogenic microorganisms including bacteria, mycobacteria, fungi and parasites, with emphasis on clinical isolation and identification techniques.

**MTC 4214. Clinical Chemistry.** Study of analyses in serum with emphasis on clinical significance, diagnostic utility, and detection methods, including immunoassay and toxicology.

**MTC 4304. Hematology.** Study of hematopoiesis, anemias, leukemias, hemoglobinopathies, coagulation, and principles of hematological testing.

**MTC 4504. Internship I.** Clinical training in the following areas of hospital laboratory: hematology and coagulation. Includes operation of instrumentation and quality control practices.

**MTC 4604. Internship II.** Clinical training in the following area of the hospital laboratory: Chemistry & Urinalysis. Includes operation of instrumentation and quality control practices.

**MTC 4703. Internship III.** Clinical training in the following area of the hospital laboratory: Blood Bank/Serology. Includes operation of instrumentation and quality control practices.

**MTC 4806. Internship IV.** Clinical training in the following area of the hospital laboratory: Microbiology. Includes operation of instrumentation and quality control practices.