

# BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES

**Web Site:** <https://twu.edu/biology/undergraduate-programs/bachelor-of-science-in-medical-laboratory-sciences/>

## Degree Requirements

**Total Semester Credit Hours (SCH):** 122-123

**Major:** 34 SCH; **Required Minor:** 20-21 SCH (Chemistry)

**Program Code:** MEDTECH.BS; **CIP Code:** 51.1005.00

Lecture and lab must be taken concurrently. A minimum grade of C is mandatory in all required courses for Medical Laboratory Sciences majors.

## Texas Core Curriculum

Code	Title	SCHs
ENG 1013	Composition I	3
ENG 1023	Composition II	3
Mathematics		3
Life & Physical Sciences		6
Language, Philosophy, & Culture		3
Creative Arts		3
HIST 1013	History of the United States, 1492-1865	3
HIST 1023	History of the United States, 1865 to the Present	3
POLS 2013	U.S. National Government	3
POLS 2023	Texas Government	3
Social & Behavioral Sciences		3
CAO: Women's Studies		3
CAO: First Year Seminar, Wellness or Mathematics		3
<b>Total SCHs</b>		<b>42</b>

## Courses Required for Major

Code	Title	SCHs
BACT 3113 & BACT 3111	General Microbiology and General Microbiology Laboratory	4
BACT 4113 & BACT 4111	Immunology and Immunology Laboratory	4
BIOL 4813 & BIOL 4811	Molecular and Cellular Biology: Gene Expression and Molecular and Cellular Biology: Gene Expression Laboratory	4
ZOOL 4243 & ZOOL 4241	Medical Physiology and Medical Physiology Laboratory	4
BIOL 4681	Biology Seminar	1
Biology Elective from BACT, BIOL, or ZOOL		9

Biology Elective hours must include coursework appropriate for science majors. The following courses are not acceptable electives: BACT 1003/BACT 1001, BIOL 1013, BIOL 1023, BIOL 1033, BIOL 1223, ZOOL 2013/ZOOL 2011, and ZOOL 2023/ZOOL 2021.

**Total SCHs** 26

## Departmental Requirements

Code	Title	SCHs
BIOL 1113 & BIOL 1111	Principles of Biology I and Principles of Biology I Laboratory	4
BIOL 1123 & BIOL 1121	Principles of Biology II and Principles of Biology II Laboratory	4
Choose one of the following:		4
CHEM 1113 & CHEM 1111	General Chemistry I and General Chemistry Laboratory I	
CHEM 1213 & CHEM 1211	Principles of Chemistry I and Principles of Chemistry Laboratory I	
Choose one of the following:		4
CHEM 1123 & CHEM 1121	General Chemistry II and General Chemistry Laboratory II	
CHEM 1223 & CHEM 1221	Principles of Chemistry II and Principles of Chemistry Laboratory II	
CHEM 2213 & CHEM 2211	Organic Chemistry I and Organic Chemistry Laboratory I	4
CHEM 3223 & CHEM 3221	Organic Chemistry II and Organic Chemistry Laboratory II	4
Choose one of the following:		4-5
CHEM 3333 & CHEM 3331	Quantitative Chemical Analysis and Quantitative Chemical Analysis Laboratory	
CHEM 3633 & CHEM 3632	Biochemistry I and Biochemistry I Laboratory	
MATH 1303 or MATH 2014	College Algebra Calculus I	3-4
MATH 1703	Elementary Statistics I	3
Choose one of the following:		4
PHYS 1133 & PHYS 1131	Principles of Physics I and Principles of Physics Laboratory I	
PHYS 2153 & PHYS 2151	General Physics I and General Physics Laboratory I	
<b>Total SCHs</b>		<b>38-40</b>

## Electives

Code	Title	SCHs
	Medical Laboratory Sciences Clinical Rotation	27
<b>Total SCHs</b>		<b>27</b>

Students must satisfy the 3 SCH global perspectives graduation requirement.

During the first three years of this program, students complete Core and degree requirements toward preparation for clinical training at an approved affiliate site. Students may need to complete some of this coursework during summer sessions in order to finish classes within a

three year period. The senior year will be spent at an affiliate hospital with a contractual agreement with TWU.

General types of courses in the senior year include studies in the areas of microbiology, parasitology, clinical chemistry, hematology, serology, urinalysis, mycology, and histology.

Clinical year arrangements are made with the Director of the Medical Laboratory Sciences Program. Medical Laboratory Sciences majors must submit a cross-registration form to the Division of Biology for each semester of the clinical program. The clinical component semester credit hours will be transferred to Texas Woman's University as 30 or more advanced semester hours credit.

## Minor

No minor is offered in Medical Laboratory Sciences. The minor in chemistry is incorporated within the medical technology curriculum.

Code	Title	SCHs
<b>Required Courses</b>		
CHEM 1113 & CHEM 1111	General Chemistry I and General Chemistry Laboratory I	4
CHEM 1123 & CHEM 1121	General Chemistry II and General Chemistry Laboratory II	4
CHEM 2213 & CHEM 2211	Organic Chemistry I and Organic Chemistry Laboratory I	4
CHEM 3223 & CHEM 3221	Organic Chemistry II and Organic Chemistry Laboratory II	4
Choose one of the following		4-5
CHEM 3333 & CHEM 3331	Quantitative Chemical Analysis and Quantitative Chemical Analysis Laboratory	
CHEM 3633 & CHEM 3632	Biochemistry I and Biochemistry I Laboratory	
<b>Total SCHs</b>		<b>20-21</b>