

# Bachelor of Science in Medical Laboratory Science

## About This Program

The Bachelor of Science in Medical Laboratory Science combines course work with 12 to 16 months of clinical laboratory training in a NAACLS accredited medical laboratory science program. This degree prepares students for careers as medical laboratory scientists in medical laboratories, clinics, hospitals, and industry.

## Competencies

1. Explain and apply fundamental biological science concepts including structure and function of cells and organisms, scientific reasoning, and data collection and analysis.
2. Determine the appropriate laboratory tests and procedures and successfully perform and interpret clinical laboratory tests.
3. Apply safety and governmental regulations and standards to the clinical laboratory setting.
4. Communicate effectively, orally and in writing, at a level sufficient to serve the needs of patients, the public, and members of the healthcare team as it relates to clinical laboratory tests, analysis, and results.

## Curriculum

A student who completes the special degree plan given below plus 12 - 16 months of clinical laboratory training in an accredited medical laboratory science program may receive the Bachelor of Science in Medical Laboratory Science, which will be conferred by The University of Texas at Arlington. Graduates may become certified in medical laboratory science by passing the examination of the Board of Registry of the American Society of Clinical Pathologists (ASCP).

### Foundations

General Core Requirements (<https://catalog.uta.edu/academicregulations/degree/requirements/general/core/requirements/>) 42

Students must complete certain courses within specific core areas.

For Communication select:

|           |                             |
|-----------|-----------------------------|
| ENGL 1301 | RHETORIC AND COMPOSITION I  |
| ENGL 1302 | RHETORIC AND COMPOSITION II |

For Mathematics select:

|           |                                 |
|-----------|---------------------------------|
| MATH 1302 | COLLEGE ALGEBRA                 |
| MATH 1308 | ELEMENTARY STATISTICAL ANALYSIS |

For Life & Physical Science select:

|           |                            |
|-----------|----------------------------|
| PHYS 1442 | GENERAL COLLEGE PHYSICS II |
| PHYS 1441 | GENERAL COLLEGE PHYSICS I  |

For US History select:

|           |   |
|-----------|---|
| HIST 1301 | HISTORY OF THE UNITED STATES TO 1865          |
| HIST 1302 | HISTORY OF THE UNITED STATES, 1865 TO PRESENT |

### Program Foundations

Additional lab hours in required core courses. 2

|           |                                 |   |
|-----------|---------------------------------|---|
| CHEM 1441 | GENERAL CHEMISTRY I             | 4 |
| CHEM 1442 | GENERAL CHEMISTRY II            | 4 |
| CHEM 2181 | ORGANIC CHEMISTRY I LABORATORY  | 1 |
| CHEM 2321 | ORGANIC CHEMISTRY I             | 3 |
| CHEM 2182 | ORGANIC CHEMISTRY II LABORATORY | 1 |
| CHEM 2322 | ORGANIC CHEMISTRY II            | 3 |
| CHEM 4311 | BIOCHEMISTRY I                  | 3 |

Select one of the following in oral communication: 3

|           |  |
|-----------|--|
| COMS 2302 | PROFESSIONAL AND TECHNICAL COMMUNICATION FOR SCIENCE AND ENGINEERING |
| COMS 1301 | FUNDAMENTALS OF PUBLIC SPEAKING                                      |

Or other approved communication course

Elective credit from any discipline 1

### Medical Technology Specialization

|           |  |   |
|-----------|--|---|
| BIOL 1441 | BIOLOGY I FOR SCIENCE MAJORS: CELL AND MOLECULAR BIOLOGY | 4 |
|-----------|--|---|

|  |  |            |
|--|--|------------|
| BIOL 1442  | BIOLOGY II FOR SCIENCE MAJORS: ECOLOGY AND EVOLUTION | 4          |
| BIOL 2444  | GENERAL MICROBIOLOGY                                 | 4          |
| BIOL 3446  | HUMAN ANATOMY  | 4          |
| BIOL 3442  | HUMAN PHYSIOLOGY                                     | 4          |
| BIOL 3312  | IMMUNOLOGY   | 3          |
| BIOL 3315  | GENETICS   | 3          |
| BIOL 4317  | BACTERIAL PATHOGENESIS                               | 3          |
| BIOL 4312  | INTRODUCTION TO VIROLOGY                             | 3          |
| Select 4 hours of 3000/4000-level Biology with the advice of the undergraduate advisor |  | 4          |
| Complete off-site at least 17 hours of MLS credit                                      |  | 17         |
| <b>Total Hours</b>   |  | <b>120</b> |

Required coursework will total 103 hours of which 16 must be 3000/4000 level. In addition, students will complete in their senior year a twelve- to sixteen-month Medical Laboratory Science program which has been certified by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

## Advising Resources

Biology department advising is available for transfer students, prospective students, and first time in college students after meeting transition criteria.

### Location:

Life Science Building 3rd floor - 345, 347, 349, 351

### Email:

Find advisor emails at link below.

### Phone:

817-272-2408

### Web:

Contact your advisor - schedule an appointment (<https://www.uta.edu/academics/schools-colleges/science/departments/biology/advising/>)