BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES

Admissions Requirements
The application deadline is June 15. All application materials, the application fee, official transcripts, and all supporting documents must be received by Allied Health Centralized Application System (AHCAS), or the Office of the University Registrar if Apply Texas is used, by the deadline. Applicants who are enrolled in college courses at the time of application should submit an official transcript showing courses in progress. An official, updated transcript must be submitted upon completion of the courses.

Bachelor of Science in MLS applicants must complete the Texas Core Curriculum (42 hours) and prerequisite courses with a grade of "C" or better. Certain prerequisite courses will apply towards meeting the Texas Core requirements:

Texas Core Curriculum Requirement

- English Composition I & II (6 semester credit hours)
- College Algebra or higher (3 semester credit hours)
- Natural Sciences (BIOL, CHEM, PHYS or other natural science) (12 semester credit hours)
- Humanities
  - Any philosophy, language, humanities, or English literature course (3 semester credit hours)
- Visual and Performing Arts
  - Any arts, drama, or music course (3 semester credit hours)
- U.S. History I and U.S. History II (6 semester credit hours)
- Texas State & Local Government & American Government (6 semester credit hours)
- Any psychology or sociology course (3 semester credit hours)

All applicants must complete the program prerequisites listed below and no grade less than "C" will be accepted; ALL science courses must be designated for science majors.

Program Prerequisite Requirement

- General Chemistry I with lab (4 semester credit hours)
- General Chemistry II with lab (4 semester credit hours)
- Biology I with lab (4 semester credit hours)
- Biology II (3 semester credit hours)
- Microbiology with lab (for science majors) (4 semester credit hours)
- General Physiology or Human Physiology (upper division) (3 semester credit hours)
- Genetics (3 semester credit hours)
- Organic Chemistry I with lab (4 semester credit hours)
- Precalculus (3 semester credit hours)
- Statistics (math, science or psychology) (3 semester credit hours)

Additional MLS program requirements:

- Minimum overall GPA of 2.5 (on a 4.0 scale)
- Minimum science GPA of 2.5 (on a 4.0 scale)

- Completion of the online Allied Health Centralized Application System (https://ahcas.liaisoncas.com) (AHCAS), or the Apply Texas (https://www.applytexas.org) Application
- Payment of non-refundable $95 application fee if using the AHCAS application or a $60 application fee if using the Apply Texas Application
- Submission of the following documents to the AHCAS or the Office of the University Registrar contingent upon which application system is used
  - Official transcripts from each college and university currently or previously attended. Applicants who are enrolled in college courses at the time of application should submit an official transcript showing courses in progress. An updated transcript must be submitted upon completion of the courses. Note: Transfer credits indicated on another school’s transcript are not accepted in lieu of submitting the original institution record for that coursework. Transcripts from institutions outside the United States must be submitted in the original language and must be accompanied by a NACES Members evaluation agency English translation (course by course).
  - Two reference letters completed by former instructors (preferably science instructors) or employers
  - Interview with program faculty
  - International Applicants only: Submit Test of English as a Foreign Language (http://www.ets.org/toefl) (TOEFL) scores; minimum scores 560 (paper) or 80 (Internet).

Required Documents (if you are accepted) to the Bachelor of Science in Medical Laboratory Sciences program:

If you are made an official offer for the Bachelor of Science in Medical Laboratory Sciences (BSMLS) program, all of the following items are required prior to matriculation:

- Non-refundable SHP Tuition Deposit to secure each student’s seat for the BSMLS class. Directions for this process will be sent to accepted students.
- Completion of a criminal background check. Directions for this process will be sent to accepted students.
- Completion of student drug testing. Directions for this process will be sent to accepted students.
- Student Immunization Record: Student Immunization Record (http://shc.uthscsa.edu/pdf/immunizationrecord.pdf) and immunization information (http://shc.uthscsa.edu/immunization_info.asp) can be found at the Health Science Center’s Student Health & Wellness Center Web Page (http://shc.uthscsa.edu) - see record form for full detailed instructions.
- Final updated transcripts must be submitted upon completion of courses from each college/university to the Office of University Registrar. All Foreign transcripts must be also sent to include the original transcript and the NACES evaluated official transcript (course by course).

Office of University Registrar Mailing Address:
Office of University Registrar - MC 7702
7703 Floyd Curl Drive
San Antonio, TX 78229-3900
• Evidence of current health insurance showing dates of coverage. Unless proof of proper insurance coverage is provided before the first day of class, students will be charged for a health insurance policy through the university. The fee for this policy is non-removable once the payment due date passes and is non-refundable once paid.

## Degree Requirements

The Bachelor of Science in Medical Laboratory Sciences degree program is a four-year program that consists of a minimum of 126 semester credit hours. The third and fourth year of the program is comprised of medical laboratory science courses and clinical practicums that are completed at the Health Science Center. The courses listed in the Sample Plan of Study constitute the professional curriculum for the Bachelor of Science degree in Medical Laboratory Sciences.

Individualized degree plans are created for each student admitted to the program in consultation with the program director. It is expected that students will be full-time. However, in special circumstances a student may petition to attend part time. This request for part time status will be reviewed and approved by the Medical Laboratory Sciences Student Progress Committee. Depending on the part time status percentage, selection of this option could delay graduation by at least one year.

### Sample Plan of Study

#### First Year

**Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLSC 3011</td>
<td>Quality Assurance in the Clinical Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>MLSC 3051</td>
<td>Hematology</td>
<td>3</td>
</tr>
<tr>
<td>MLSC 3052</td>
<td>Hematology Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>MLSC 3060</td>
<td>Immunohematology</td>
<td>2</td>
</tr>
<tr>
<td>MLSC 3064</td>
<td>Immunohematology Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>MLSC 3065</td>
<td>Clinical Immunology</td>
<td>3</td>
</tr>
<tr>
<td>MLSC 3071</td>
<td>Diagnostic Immunology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>MLSC 3085</td>
<td>Principles of Biochemistry</td>
<td>3</td>
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</table>

**Total Credit Hours:** 17.0

**Spring**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLSC 3010</td>
<td>Body Fluids</td>
<td>2</td>
</tr>
<tr>
<td>MLSC 3033</td>
<td>Medical Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>MLSC 3034</td>
<td>Medical Microbiology Lab</td>
<td>2</td>
</tr>
<tr>
<td>MLSC 3040</td>
<td>Special Topics in Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>MLSC 3081</td>
<td>Clinical Chemistry</td>
<td>2</td>
</tr>
<tr>
<td>MLSC 3082</td>
<td>Clinical Chemistry Laboratory</td>
<td>2</td>
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</table>

**Total Credit Hours:** 14.0

**Second Year**

**Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLSC 4033</td>
<td>Advanced Medical Microbiology</td>
<td>2</td>
</tr>
<tr>
<td>MLSC 4053</td>
<td>Advanced Hematology</td>
<td>2</td>
</tr>
<tr>
<td>MLSC 4057</td>
<td>Hematology Practicum</td>
<td>5</td>
</tr>
<tr>
<td>MLSC 4067</td>
<td>Immunohematology Practicum</td>
<td>4</td>
</tr>
<tr>
<td>MLSC 4095</td>
<td>Management</td>
<td>2</td>
</tr>
</tbody>
</table>

**Second Year**

**Spring**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLSC 4095</td>
<td>CLS Senior Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Credit Hours:** 16.0

### Objectives/Program Outcomes

Students graduating from the Bachelor of Science in Medical Laboratory Sciences program will be able to:

- Demonstrate communication skills sufficient to serve needs of patients, colleagues, members of patient care team and the public.
- Perform laboratory tests using sophisticated instrumentation on body fluids, cells, and other specimens accurately and efficiently.
- Use quality control data and procedures to evaluate the validity and reliability of laboratory test results.
- Correlate laboratory test results, recognize the presence of a problem (e.g., reagents, instrumentation, controls, personnel) and take appropriate corrective action.
- Determine the significance of laboratory test results through an understanding of physiologic functions, principles, techniques, and methods related to clinical laboratory practice.
- Exhibit ethical and professional behavior appropriate for the delivery of patient care.
- Participate in continuing education to enhance personal competency and impart knowledge to others
- Use the principles of method evaluation in the selection of new test methods and instrumentation
- Apply educational principles and methodologies to teaching/learning situations involving students, colleagues, patients, members of patient care team, and the public
- Recognize basic principles of administration and supervision as they relate to clinical laboratory practice
- Apply principles of safety and governmental regulations and standards related to clinical laboratory practice

### Program Policies and Information

#### Advancement to the Second Year

A student must have no grade lower than a C in required science and medical laboratory sciences courses to begin the second year and begin clinical practicums. In addition, a MLS student must file an *Intent to Enroll in Clinical Practicum* form, available from the program director at the end of the semester before practicums begin. Students who are ready for clinical practicums are placed based on availability of positions at the affiliate sites throughout South Texas. All students are expected to complete at least one practicum at an affiliate located outside of San Antonio. In the unlikely event that there are not enough sites available for the number of students ready to enter practicums, assignments will
be made according to program policies. Students who must remediate a practicum will be assigned to an affiliate on a space-available basis.

**Advisement and Schedule Planning**

Applicants are encouraged to seek advisement from their college counselors or the School of Health Professions Office of Admissions and Special Programs at (866) 802-6288 (toll-free) or (210) 567-6220. Students who complete lower-division course work at another college or university are urged to seek advisement about coursework that will fulfill program requirements well in advance of applying to the Health Science Center. Students must be advised each semester before permission is given to enroll in professional courses. For students in any Medical Laboratory Sciences program, sequencing and completion of specific courses are very important.

**Certification**

Students who successfully complete the BS in Medical Laboratory Sciences program are eligible to take the national certification examination for Medical Laboratory Scientist, MLS(ASCP) given by the Board of Certification (https://www.ascp.org/content/board-of-certification) (BOC) of the American Society for Clinical Pathology (ASCP). Awarding of the degree is not contingent on passing an external certification or licensing examination.

**Credit by Examination**

Students enrolled in the BS in Medical Laboratory Sciences program may attempt to earn credit by examination according to the policy and procedures in the School of Health Professions section of this *Catalog*. Students who have college credit for MLT coursework are eligible to take "challenge examinations." Students who are certified MLT (ASCP), have completed a MLT program accredited by NAACLS, and have an associate degree are not required to take challenge examinations. Challenge examinations must be passed with a grade of 70% or better for credit to be earned. For detailed information about eligible courses, fees, schedules, and procedures, contact the program director.

**Placement Examinations**

Individuals who have certification from Board of Certification (https://www.ascp.org/content/board-of-certification) (BOC) as a MLT(ASCP), have graduated from an accredited MLT program with an associate degree and are entering the second year of the BS in MLS may be given placement examinations to determine areas of discipline strengths and weaknesses.

**Practicum Assignments**

Clinical practicum assignments provide the student with a breadth of experiences that encompass all major content areas and exposure to laboratory technology. Assignment to clinical affiliates for practicum courses is a random process that is based on availability of positions at the affiliate sites. Practicum courses typically begin in the fall semester and are completed during the spring semester.

All students are expected to complete at least one practicum at an affiliate located outside of San Antonio. If a student declines to go to an assigned affiliate, this will result in a loss of the student's practicum position and possible delay of graduation. Students who have special needs and request specific considerations for practicum assignments must put the request in writing to the program director at least one semester before the practicum begins. The program director will take the request to the faculty who will approve or disapprove the request.

**Program Costs**

In addition to required tuition and fees, there are costs for textbooks, scrubs, and equipment. Detailed information about program costs can be found on the Bachelor of Science in Medical Laboratory Sciences website.

**Transfer of Credits**

Agreements for transferable coursework exist with some area colleges and universities. Students should contact the program director of the Health Science Center's Medical Laboratory Sciences Program or the biology advisor at their institution to determine if such an agreement exists with their school.

For additional information, see the policies and procedures in the School of Health Professions section of this *Catalog*.