

# BACHELOR OF SCIENCE IN MEDICAL SCIENCES

The Bachelor of Science in Medical Sciences (BSMS) program at The University of Texas at San Antonio will produce outstanding graduates well prepared to pursue careers in a variety of health care professional areas.

The program's medical sciences track will prepare students to enter health science professional degree programs which require a bachelor's degree as a prerequisite for admission. These professions include graduate degree granting allied health programs (e.g., physician assistant [MPAS], speech language pathology [MS SLP], physical therapy [DPT], occupational therapy [OTD], respiratory care [MS RC], medical laboratory sciences [MS MLS], health systems management [MS HSM]), dental school [DDS], medical school [MD], pharmacy school and graduate level biomedical sciences (e.g., MS and/or PhD; microbiology & immunology, cellular biology, physiology, pharmacology). Students in the medical sciences track will complete a medical science-based curriculum to prepare them for competitive application to graduate school, as well as completing a health-related certificate for employment.

The admission requirements for the BSMS degree program align with the general requirements of The University of Texas at San Antonio School of Health Professions. All of the required application information, including official transcripts from all institutions attended, must be submitted in order for an applicant to be considered by the BSMS program Admissions Committee. The following minimal requirements will be applied:

1. A minimum of 60 semester credit hours of lower division undergraduate coursework from a U.S. accredited institution prior to beginning the program. Provisional admission may be offered to students who plan to complete lower division course work prior to matriculation.

## Texas Core Curriculum

- English Composition I & II (6 semester credit hours)
- College Algebra or higher (3 semester credit hours)
- Natural Sciences
- Humanities
  - Any Philosophy, Language, Humanities or English Literature (3 semester credit hours)
- Visual and Performing Arts
  - Any Arts, Drama, Dance or Music course (3 credit hours)
- American History (6 semester credit hours)
- Texas State & Local Government & U.S Government (6 semester credit hours)
- Any Psychology or Sociology course (3 semester credit hours)

## Program Prerequisites

- General Biology I & II with Lab or Anatomy and Physiology I & II with Lab (8 semester credit hours)
- General Chemistry I & II with Lab (8 semester credit hours)
- Organic Chemistry I with Lab (4 semester credit hours)
- Physics I with Lab (4 semester credit hours)
- College Algebra or higher (3 semester credit hours\*)
- \* Part of the Texas Core Curriculum

- All prerequisite science courses must be for science majors. Students are allowed to co-enroll in the program while working to complete Texas Core requirements but must have 70% of core courses complete for acceptance, including one English, one math, and one science course. Students must have all Texas Core courses completed no later than the enrollment date for their final semester in the BSMS program.

2. A minimum overall GPA of 2.5 on a 4.0 scale in undergraduate course work is strongly recommended.
3. Completion of all required lower division undergraduate courses with a grade of "C" or better.
4. Official transcripts from all colleges attended.
5. A personal interview with program faculty.
6. Completed application via Allied Health CAS (ahcas.liaisoncas.com)

Prospective students who are not U.S. citizens and do not have permanent resident status are subject to the same requirements, procedures and acceptance considerations that apply to first-time applicants. Additionally, students will have to meet specified requirements by the Office of International Services (OIS).

Only degree-seeking applicants are eligible to apply for a student visa status.

Applicants from countries where English is not the official language are required to submit scores on the Test of English as a Foreign Language (TOEFL), the International English Language Testing System (IELTS), or Duolingo English Test. The minimum required scores are listed below:

TOEFL      84

IELTS      7.0

Duolingo    115

Scores on TOEFL, IELTS, and Duolingo tests taken more than two years prior to the date of application are not acceptable. TOEFL, IELTS, and Duolingo scores may be waived for international students from countries where English is the official language spoken; or for noncitizens of the United States earning a bachelor's degree or higher in the United States or other countries where English is the official language.

## Graduation Requirements

Degree requirements which must be met for the award of the Bachelor of Science in Medical Sciences include:

1. Must complete 120 total program hours and a cumulative GPA of a 2.0 to be eligible for graduation (<http://catalog.uthscsa.edu/generalinformation/generalacademicpolicies/graduationpolicy/>).
2. Satisfactory completion of all lower division required undergraduate courses.
3. Satisfactory completion of all required course work for the medical sciences concentration, including core course requirements.
4. A current degree or certificate in an approved health-related field (e.g. diagnostic medical sonography, medical radiography, respiratory therapy, surgical technology, physical therapy assistant, occupational therapy assistant, emergency medical technician or paramedic, health coaching). Satisfactory completion of The University of

Texas at San Antonio Emergency Medical Technology (EMT) - Basic certificate will meet this requirement.

5. Completion of the program student professional and community service requirement.

### Curriculum

#### Summary of Required Courses

The lower division curriculum requirements are outlined under Admission Requirements. Upper division courses consist of the BSMS core requirements for all students and the course requirements for the Medical Sciences concentration.

The Student Progress Committee of the BSMS degree program will ensure that the degree plan is followed by BSMS students in order to make appropriate progress towards their degree. The Student Progress Committee will grant exceptions from this schedule only under extenuating circumstances.

#### Certificate in Emergency Medical Technology

Students who would prefer to complete the Emergency Medical Technician (EMT) certificate program may do so during the 10-week summer session between the junior and senior year of the BSMS program. The EMT certificate program is provided by the Department of Emergency Health Sciences within the School of Health Professions at the UT Health Science Center at San Antonio.

#### Student Professional and Community Service Requirement

Details of the student professional and community service requirement are outlined in the program handbook. A minimum of 16 hours of service are required for graduation.

#### Medical Sciences Track

##### **First Year**

<b>Fall</b>		<b>Credit Hours</b>
BSMS 3000	Introduction to the Health Professions	3
BSMS 3020	Anatomy	4
BSMS 4020	Nutrition	3
BSMS 3028	Microbiology	4
<b>Total Credit Hours:</b>		<b>14.0</b>

##### **First Year**

<b>Spring</b>		<b>Credit Hours</b>
BSMS 3030	Human Physiology	4
BSMS 3021	Biochemistry	3
BSMS 3010	Biostatistics	3
BSMS 4010	Research Methods	3
BSMS 4033	Health Care Disparities	3
<b>Total Credit Hours:</b>		<b>16.0</b>

<sup>2</sup> Possible substitution with separate course in Clinical Chemistry or Immunology with permission of advisor

##### **Second Year**

<b>Fall</b>		<b>Credit Hours</b>
BSMS 4015	Epidemiology	3
BSMS 4005	Health Care Ethics	3
BSMS 3051	Immunology and Hematology	3
BSMS 4025	Patient Assessment	3
BSMS 4011	Genetics	3
<b>Total Credit Hours:</b>		<b>15.0</b>

##### **Second Year**

<b>Spring</b>		<b>Credit Hours</b>
BSMS 4036	Health Care Informatics	3
BSMS 4000	Health Care Systems	3
BSMS 3023	Pharmacology	3
BSMS 3026	Clinical Chemistry	3
BSMS 4045	Capstone Project and Practicum	3
<b>Total Credit Hours:</b>		<b>15.0</b>

#### **Program Objectives**

1. To prepare students for admission to graduate professional degree programs in allied health, medicine, nursing, dentistry and the biomedical sciences.
2. To provide graduates of associate degree health occupations programs the opportunity to obtain a bachelor of science to expand their academic preparation and acquire leadership competencies.

#### **Student Learning Outcomes**

The BSMS program enables students to:

1. Describe fundamental biological, chemical and physical properties underlying all life systems.
2. Gain a broad understanding of the various health care professions and prepare for entry into a profession of choice.
3. Apply current knowledge, theory and research into health professions practice.
4. Integrate management and communication skills to work effectively in health care teams.
5. Acquire knowledge of the various health professions and maintain best practices through continuing education and lifelong learning.
6. Describe the roles and functions of the various health professions.
7. Incorporate ethics and professional behaviors into their practice and interactions with peers, colleagues and the general public.
8. Apply information technology skills in a variety of health care professions and settings.
9. Demonstrate critical thinking, reflection, and problem-solving through evidence-based practice in multiple health care areas.
10. Analyze concerns with health care delivery and strategize ideas that can improve disease treatment and prevention.

11. Analyze factors that influence community and individual behaviors toward health care to improve care for those in need.
12. Advocate for continuous improvement of the health care system through promotion of public policy.
13. Demonstrate respect for and adaptability to cultural, ethnic and individual diversity within a changing health care environment.

### **Academic Progression**

The Bachelor of Science in Medical Sciences faculty normally will meet twice a year to review student progress in the program. These meetings will occur shortly after the fall and spring semesters are completed. The criteria to be used in evaluating student progress are described in the School of Health Professions Program Review and Outcomes Assessment (PROA) system.

### **Advancement, Probation, and Dismissal**

Decisions about advancement, probation, suspension and dismissal are made on the basis of academic performance and professional behavior. The program director determines the academic standards for advancement in the program's certificate or degree programs. Failure to meet the academic and professional standards may result in probation, suspension, or dismissal from the program.

Continuation in the BSMS program is dependent on maintenance of a minimum cumulative grade point average of 2.0 on a 4.0 grading scale. A student whose cumulative GPA falls below the minimum may be subject to academic probation. All decisions concerning probation or dismissal will be based on recommendations from the Student Progress Committee. The faculty and the committee may recommend academic probation, repetition of the course when next offered, suspension with repetition of the course when next offered, repetition of the year or semester, or dismissal.

In health professions education, professionalism is a required academic standard. Students who do not adhere to professional conduct standards may be subject to probation, suspension or dismissal from their certificate or degree program. Other standards and policies may be set forth by the faculty as described in their course syllabi. Professional behavior and ethics standards from professional organizations may also be applied.

Students may be dismissed, suspended or refused readmission at any time if circumstances of a legal, moral, health, social or academic nature are considered to justify such action.

### **Dropping or Adding Courses**

Students may add or drop courses prior to the official census date. The census date varies by program and semester, so students must refer to their specific academic calendar. If a student drops one or more classes (but not all classes) before the census date, a grade will not be assigned; however, if a student drops all classes, a grade of W (Withdraw) will be assigned for all courses. When a student withdraws after the first class day, a grade of W will be assigned for all courses.

Any courses that are approved to be added or dropped outside of the official web registration dates must be documented on a completed and signed Add/Drop eForm.

Students adding or dropping a course may be subject to additional tuition and fees or may be eligible for a refund.

A student may drop a course and receive a grade of W on her/his transcript if an official Add/Drop eForm is signed and processed after the census date and before the final course exam or, if there is no final course exam, before the final class meeting for the course.

A student can be administratively dropped from a course when the course instructor makes that recommendation to the department chairperson and can show that circumstances warrant such action. If approved by the department chairperson, a grade of W will be assigned.

It is the student's responsibility to drop a course by the appropriate deadline. If a student fails to drop a course, even if the student does not attend the course, the student may receive a grade of F in the class or the grade earned up the point of nonattendance. Faculty and staff will not drop a student from a course automatically for nonattendance; the student must initiate the process and complete any necessary steps to ensure that the class is dropped.

Students who want to drop all classes after the semester begins should refer to Withdrawal From the program.

### **Institutional Policies**

Students must abide by all institutional policies, which are administered by pertinent departments and divisions across UTHSA. Institutional policies are consistent with those that are also identified in the UTHSA Handbook of Operating Procedures. For more detailed information, refer to the UTHSA institutional policies at <http://catalog.uthscsa.edu/generalinformation/institutionalpolicies/>.

### **Student Professional and Community Service Requirements**

Participation in service activities is an important attribute of the health science professional. A hallmark of outstanding students and alumni is the desire and ability to make meaningful service contributions. Community service activities may include volunteer activities (e.g., health fairs and clinics, health education, provision of health services to at-risk or disadvantaged populations, and other outreach, education, or clinical activities) and service on community boards, committees, work groups, and other service activities that promote the health and well-being of the community and its members. Professional service may include participation in the provision of state, national, or international activities to advance the quality, access, and effectiveness of health care services provided by allied health professionals. Achievement of the School of Health Professions Excellence in Community and Professional Service Goal is demonstrated in part through:

1. Student and faculty participation in community service activities.
2. Student satisfaction with and appreciation for community service.
3. Students and faculty who provide leadership and support to professional associations, boards, and committees.
4. Provision of community and professional continuing education to local, national, and international audiences.

To support achievement of these service excellence goals and objectives, the School of Health Professions has developed a professional and community service recommendation for students as a part of its academic programs. Students in the BSMS program must complete a minimum of 16 service hours as part of their degree requirements. Examples of activities that may be used to meet this requirement include participation in community health fairs, community health screening and/or health services, provision of community health education, participation in approved professional service and/or continuing education activities, and assistance with the delivery of seminars, lectures, workshops, and related community or professional continuing education activities. This

program requirement may be required for satisfactory course completion for at least one course in the student's prescribed course of studies.

**Program Costs**

In addition to required tuition and fees, there are costs for textbooks, scrubs, and equipment. Practicum rotations in the curriculum may require that students relocate outside of San Antonio for the duration of the rotations. The expenses associated with these clinical rotations will vary according to individual arrangements for the cost of travel, temporary housing, etc. Students are encouraged to budget for major expenditures that could be associated with these assignments. Detailed information about program costs can be found on the Department of Health Sciences website.

**Background Checks and Drug Screening**

Background checks are required prior to matriculation. Any events that occur after the initial background check that might affect the student's status in the program must be reported to the department immediately. Students are required to comply with additional requests for background checks at any time during their course of study.

Students are responsible for the cost of any/all required background checks.

Some medical facilities require students that rotate in their facility to undergo drug screening prior to being awarded temporary privileges. It is the student's responsibility to comply with this screening. It is the student's responsibility to arrange for the screening in a timely fashion so as not to impact their rotation duties.

The student is responsible for any applicable fees associated with drug screening.