MASTER OF SCIENCE IN APPLIED BIOMEDICAL SCIENCES

The Master of Science in Applied Biomedical Sciences (MABS) program offers a valuable bridge for students seeking to strengthen their academic profile for competitive programs such as MD/DO, PA, Pharmacy, or PhD pathways. It emphasizes specialized career tracks in Clinical Sciences, Health Technologies, Medical/Healthcare Artificial Intelligence, and Regulatory Affairs. The MABS integrates graduate-level coursework in translational research, digital health, precision medicine, and clinical trial design, preparing students for leadership roles in research, healthcare, biotech, and regulatory sectors. It includes internship experiences and a capstone project, enabling students to gain hands-on, real-world experience with industry, research institutions, or public health organizations. The MABS is offered in hybrid and online formats, suitable for working professionals and non-traditional students.

Additional information: Reference the Program Landing Page (https://www.shsu.edu/academics/majors-programs/applied-biomedical-sciences-mabs/) for additional information, such as cost, delivery format, contact information, or to schedule a visit.

Students must meet the following requirements to be considered for admission to the MABS program:

- Bachelor's degree from a regionally accredited institution
- Minimum GPA of 2.75 (on a 4.0 scale) is preferred
- Official transcripts from all previously attended institutions
- One letter of recommendation from an academic or professional reference
- English Language Proficiency (TOEFL or IELTS) for international applicants, unless exempt

Code	Title	Hours
Master of Science in Applied Biomedical Sciences		
Required Courses		
ABMS 5301	Advanced Biomedical Sciences & Translational Medicine	3
ABMS 5302	Biomedical Data & Digital Health Applications	3
ABMS 5303	Principles of Clinical & Biomedical Regulations	3
ABMS 5304	Research Methodology & Scientific Communication	3
ABMS 5400	Internship in Applied Biomedical Sciences	4
ABMS 5290	Capstone in Healthcare & Biomedicine	2
Prescribed Electives		
Students must select one Track from the following:		12
Clinical Sciences		
ABMS 5305	Clinical Research & Experimental Design	
ABMS 5306	Biomarker Discovery & Precision Medicine	
ABMS 5307	Translational Medicine and Drug Development	
ABMS 5308	Omics Technologies & Personalized Therapies	
Health Technologies		
ABMS 5317	Health Information Systems & Electronic Health Records	
ABMS 5318	Cyber Security & Data Privacy in Healthcare	
ABMS 5319	Wearable & Remote Patient Monitoring Technologies	
ABMS 5320	Interoperability & Data Standards in Health Info Technology	
Medical/Healthcare Artificial Intelligence		
ABMS 5309	Fundamentals of Artificial Intelligence in Healthcare	
ABMS 5310	Predictive Analytics & Clinical Decision Support	
ABMS 5311	Artificial Intelligence in Medical Imaging & Diagnostics	
ABMS 5312	Natural Language Processing for Healthcare	
Regulatory Affairs		
ABMS 5313	Medical Product Development & FDA Regulations	
ABMS 5314	Clinical Trials & Post-market Surveillance	
ABMS 5315	Pharmaceutical & Biotechnology Regulatory Science	
ABMS 5316	Quality Assurance & Risk Management in Healthcare	
Total Hours		**30**

The Texas Higher Education Coordinating Board (THECB) marketable skills initiative is part of the state's **60x30TX plan** and was designed to help students articulate their skills to employers. Marketable skills are those skills valued by employers and/or graduate programs that can be applied in a variety of work or education settings and may include interpersonal, cognitive, and applied skill areas.

The Master of Science in Applied Biomedical Sciences (MABS) is designed to provide graduates with the following marketable skills:

- Biomedical data analysis and interpretation.
- Scientific and regulatory communication.
- Translational research and experimental design.
- Interdisciplinary collaboration and problem solving.
- Real-world application through capstone and internship.