



## Why an Academy?

The Medical Science Academy offers specialized, accelerated education proven to give students an advantage in post high school medical studies. Our graduates are highly recruited due to valuable experience gained through internship programs and collaboration with universities and medical stakeholders.

**Academies...**  
Making a World of Difference

*Find out more about this program through the Fort Bend ISD website at [www.fortbendisd.com](http://www.fortbendisd.com) or by contacting the Hightower High School campus directly.*

**For more information contact:**

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[www.fortbendisd.com](http://www.fortbendisd.com)

It is policy of Fort Bend Independent School District not to discriminate on the basis of race, color national origin, sex, age, or disability in admission or access to, or treatment in, its programs, services, or activities as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; Title II of the Americans with Disabilities Act of 1990; Fort Bend I. S. D. will take steps to assure the lack of English language skills will not be a barrier to admission and participation in all educational and vocational programs. For information about your rights or grievance procedures, contact the Title IX Coordinator, Sandra Scott-Bonner, Director of Administrative Services; and/or the Section 504 Coordinator, Dr. Robert Conlon, Director of Student Support Services at P. O. Box 1004, Sugar Land, TX 77487-1004, (281) 634-1000.

Produced by the Community Relations Department



**Academies...** Making a World of Difference

## Medical Science Academy

Fort Bend Independent School District  
**ACADEMY**  
program

# Hightower High School • Medical Science Academy

## Academy Objective:

Our objective is to offer students a unique educational opportunity and expose them to practicing medical professionals in world class facilities.

## Academy Overview:

The curriculum features a comprehensive progression of courses ranging from the most basic medical concepts to advanced diagnostics. Our academic rigor prepares students to succeed at the collegiate and professional school level.

## Academy Applicants should have:

Please see the application guidelines at the beginning of the Academy section of the program guide.

- Commended or Proficient Plus TAKS
- High grades in math and science
- Passionate original essay
- Clean behavior record
- Excellent teacher recommendations
- Impressive entrance interview
- Desire to pursue a career oriented curriculum

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**ACADEMY**  
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## Course Offerings:

### Principles of Health Science

This is a freshman semester course that provides the student with an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the health care industry.

### Medical Terminology

This course is designed to develop a working knowledge of the language of medicine. Second semester freshmen students acquire word-building skills by learning prefixes, suffixes, roots, and abbreviations. Then by relating terms to body systems, students identify proper use of words in a medical environment.

### Anatomy and Physiology

Anatomy and Physiology covers the basics of human anatomy and physiology including anatomical terminology, basic biochemistry, cells and tissues, and the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic/immune, respiratory, digestive, urinary, and reproductive systems. Introduces common human disease processes.

### Health Science

This course provides students with opportunities to develop advanced knowledge and skills related to a wide variety of health careers. Hands-on clinical internships are done in the Texas Medical Center.

### Practicum in Health Science

This course is a continuum of Health Science designed to give students practical application of previously studied knowledge and skills. Practicum students experience firsthand what a profession in their chosen field entails through individual mentorships.

### Medical Microbiology

Students in Medical Microbiology explore the microbial world, studying topics such as pathogenic and non-pathogenic microorganisms, laboratory procedures, identifying microorganisms, drug resistant organisms, and emerging diseases.

### Pathophysiology

Students in Pathophysiology study disease processes and how humans are affected. Emphasis is placed on prevention and treatment of disease. Students will differentiate between normal and abnormal physiology in laboratory and field investigations.

### Counseling and Mental Health

This is an abnormal psychology course taught from the perspective of a healthcare provider.

### Pharmacology

Students utilize a unique combination of chemistry, physiology, psychology, diagnostics, and hands on labs to understand the selection and preparation of the appropriate medications. Students are encouraged to become certified Pharmacy Technicians upon completion.

### Clinical Nutrition and Wellness

Students in this course use prerequisite knowledge from other health science courses to understand the results of proper and improper nutrition on health and disease.

