

STEM

SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH

BIOMEDICAL SCIENCE

PROGRAM OF STUDY

The Biomedical Science program of study focuses on the study of biology and medicine in order to introduce students to the knowledge and skills necessary to be successful in the healthcare field, such as researching and diagnosing diseases, pre-existing conditions, or other determinants of health. Students may also practice patient care and communication.

Texas Data: Collected by TEA October 2019

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Biotechnician Assistant Certification (BACE)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Medical and Laboratory Technicians	\$37,981	1,159	28%
Biological Technicians	\$42,931	452	17%
Forensic Science Technicians	\$48,152	171	35%
Chemical Technicians	\$49,733	672	10%
Medical and Clinical Laboratory Technologists	\$58,760	1,166	25%

Additional Career Opportunities: Medical Laboratory Assistant; Histologic Technician Molecular Biology; Genetic Counseling; Biomedical Engineers; Medical Scientist; Clinical Laboratory Science; Epidemiology.

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers/Panels; Medical Facility and Lab Tours; Industry Observations/Internships/Externships.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Health Occupations Students of America (HOSA); iGEM; National Technical Honor Society (NTHS)



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Biomedical Science
- 2 LEVEL** Human Body Systems
- 3 LEVEL** Medical Interventions, Medical Microbiology
- 4 LEVEL** Practicum in STEM: Biomedical Science, Scientific Research and Design

NOTE: See reverse for additional course sequence options and endorsement requirements. Course descriptions and details can be found in the course catalog.



The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

Non-Discrimination Statement

It is the policy of Leander ISD not to discriminate on the basis of race, color, national origin, sex or handicap in its Career and Technology Education Programs, services, or activities. Leander ISD will take steps to assure that lack of English language skills will not be a barrier to admission and participation in all educational and vocational programs. Es norma de Leander ISD de no discriminar por motivos de raza, color, origen nacional, sexo o impedimento, en sus programas, servicios o actividades vocacionales. Leander ISD tomará las medidas necesarias para asegurar que la falta de habilidad en el uso de la lengua inglés no sea un obstáculo para la admisión o participación en todos los programas educativos y vocacionales.

BIOMEDICAL SCIENCE

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A student may earn a STEM endorsement by completing foundation and general endorsement requirements including Algebra II, Chemistry and Physics. Endorsement course options for the Biomedical Science Program of Study are listed below.



7 CREDITS REQUIRED

Required Courses:

- Algebra II
- Chemistry
- Physics

Choose at least 2 credits from the following:

- Principles of Biomedical Science (PLTW)
- Human Body Systems (PLTW)
- Medical Interventions (PLTW)

Choose additional credits from the following:

- Practicum in STEM: Biomedical Science
- Anatomy and Physiology
- Medical Microbiology
- Principles of Health Science
- Medical Terminology
- Professional Communications
- Career Preparation
- Scientific Research and Design

NOTE: Students who do not complete Algebra II, Chemistry and Physics, but earn four credits in the Biomedical Science Program of Study, are eligible to earn a Public Service endorsement.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

The Biotechnician Assistant Credentialing Exam (BACE) is an industry-recognized exam designed to assess core skills and knowledge sets identified by industry, and represented within the academic and performance standards of Biotechnology programs. The exam was originally vetted by the state of Florida's industry organization, BioFlorida, which represents more than 3,000 companies and research organizations in the biotechnology, pharmaceuticals, medical devices, and bioagriculture sectors. Since its creation, BACE has been assessed by national and international companies as other states adopt the exam.

NOTES:
