



Level 1
Principles of Biosciences
Principles of Biomedical Science (PLTW)

Human Body Systems (PLTW)
Biotechnology I

Level 2

Biotechnology II
Medical Microbiology
Medical Interventions (PLTW)

Level 3

Pathophysiology
Biomedical Innovation (PLTW)
Practicum in Science, Technology
Scientific Research and Design

Level 4

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Medical Laboratory Assistant	Medical and Clinical Laboratory Technologists	Histologic Technician	Biomedical Engineers	Genetic Counseling
Medical Laboratory Technician		Clinical Laboratory Science/ Medical Technology/ Technologist	Biomedical Engineers	Medical Scientists
			Clinical Laboratory Science/ Medical Technology/ Technologist	Epidemiology

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 industry-based certification information is available on the TEA CTE website. For more information on postsecondary options for this program of study, visit TXCTE.org.

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:	Work Based Learning Activities:
Health Occupations Students of America (HOSA)	Lab internship or shadow a healthcare or medical professional

The Biomedical Science program of study focuses on the study of biology and medicine in order to introduce CTE learners 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.



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.

Successful completion of the Biomedical Science program of study will fulfill requirements of the Public Service or STEM endorsement if the math and science requirements are met.

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COURSE INFORMATION

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) COREQUISITES (CREQ)	Grade
Principles of Biosciences	13036300 (1 credit)	None	9-10
Principles of Biomedical Science (PLTW)	N1302092 (1 credit)	None	9-10
Human Body Systems (PLTW)	N1302093 (1 credit)	None	10-12
Biotechnology I	13036400 (1 credit)	PREQ: Biology	11-12
Biotechnology II	13036450 (1 credit)	PREQ: Biotechnology I and Chemistry and Biology	11-12
Medical Microbiology	13020700 (1 credit)	PREQ: Biology and Chemistry	10-12
Medical Interventions (PLTW)	N1302094 (1 credit)	None	10-12
Pathophysiology	13020800 (1 credit)	PREP: Biology and Chemistry	11-12
Biomedical Innovation (PLTW)	N1302095 (1 credit)	None	11-12
Practicum in Science, Technology, Engineering, and Math	13037400 (2 credits) 13037405 (3 credits) 13037410 (2 credits) 13037415 (3 credits)	PREQ: Algebra I and Geometry	12
Scientific Research and Design	13037200 (1 credit)	PREQ: Biology, Chemistry, Integrated Physics and Chemistry (IPC), or Physics	11-12

FOR ADDITIONAL INFORMATION ON THE SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS CAREER CLUSTER, PLEASE CONTACT: CTE@tea.texas.gov

<https://tea.texas.gov/cte>