

BIOMANUFACTURING TECHNOLOGY, LEVEL 2 CERTIFICATE



Overview

Have you always wanted a career helping people and making a difference? Are you interested in the production of life-saving therapeutics? Then the biomanufacturing industry is for you. The Biomanufacturing Technology Associates of Applied Science (AAS) program at San Jacinto College equips students with a comprehensive understanding of bioprocessing and manufacturing techniques in the biotechnology industry. This program focuses on developing practical skills in upstream and downstream processing, quality control, and regulatory compliance. Students gain hands-on experience with state-of-the-art equipment, preparing them for roles in biopharmaceutical manufacturing, research and development, and biotechnology industries. Upon completion, graduates will be well-positioned for rewarding careers in the biopharmaceutical and industrial biotechnology fields.

With the new Biomanufacturing Technology AAS degree, San Jacinto College offers students the chance to receive hands-on, real-world experience in a bioprocessing center that includes upstream, downstream, and fill-finish training and cutting-edge equipment. The program is located on the South campus and will also be offered at the Generation Park Campus in the fall of 2025. For details on how to apply, students may email the program director, Dr. Nicole Bradley (nicole.bradley@sjcd.edu).

Earning Potential

Biomedical Technicians: \$61,952¹

¹ Source: <https://govsalaries.com/salaries/biomedical-technician-salary/texas>

Campuses

Generation Park

South Campus

Information

The Biomanufacturing Technology AAS curriculum dives into general industry operations and industry techniques, cGDP/cGMP standards, upstream and downstream processes, cleanroom gowning, quality control and quality assurance and regulatory compliance. After

completion of the AAS degree students can transfer their skills to directly to day-to-day operations in the biotechnology industry.

Students enrolling into San Jacinto College programs with external learning experiences (i.e., clinical, practicum, externship, cooperative, etc.) will be required to comply with the immunization requirements and policies of the clinical/external learning sites to engage in all clinical/external learning experiences. Vaccination requirements at clinical/external learning sites are implemented pursuant to the independent authority of such facilities and are not mandated by San Jacinto College. Failure to meet the immunization requirements mandated by clinical/external learning sites may limit a student's ability to complete the program and/or may delay the student's graduation date. San Jacinto College does not process exemptions, and students should address potential vaccination exemptions directly with the clinical/external learning site.

Plan of Study

5BIO-MFG

First Year

First Term		Credits
Select one of the following:		4
BIOL 1306 & BIOL 1106	Biology for Science Majors I (lecture) and Biology for Science Majors I (lab)	
BIOL 2301 & BIOL 2101	Anatomy and Physiology I (Lecture) and Anatomy and Physiology I (Lab)	
BITC 1411	Introduction to Biotechnology	4
BITC 1191	Special Topics in Biological Technology/Technician	1
BCIS 1305	Business Computer Applications	3
Credits		12

Second Term

BITC 1340	Quality Assurance for the Biosciences	3
BITC 2411	Biotechnology Laboratory Instrumentation	4
BITC 2277	Product Development to Commercialization	2
BITC 1402	Biotechnology Laboratory Methods and Techniques	4
Credits		13

Second Year

First Term		Credits
BITC 2445	Medical Biotechnology	4
BITC 2475	Upstream and Downstream Manufacturing of Biologics	4
BITC 2431	Cell Culture Techniques	4
Credits		12
Total Credits		37

Capstone Experience: The students will qualify for the NIBRT Global assessments Credentials.