

# PROCESS TECHNOLOGY CHEMICAL TECHNICIAN, ENHANCED SKILLS CERTIFICATE



## Program Information

If you have a technical mind, you are in luck. Houston is home to the largest petrochemical and refining complex in the nation, and the demand for skilled process technicians continues to grow! Our graduates enter the workforce with the necessary skills that are highly prized by companies that continually hire students directly out of our program.

The San Jacinto College Associate of Applied Science (AAS) degree in Process Technology:

- Prepares students to become plant operators responsible for equipment, the hazards of the chemicals, and the chemistry and physics involved in process technology;
- Works in the LyondellBasell Glass Distillation Plant laboratory. This world-class plant offers real-world scenario experience as a fully functional unit. Most importantly, students will engage in a work-based learning environment that they will see in a plant environment. The learning experience is enhanced as the internal workings of the process are transparent. Thanks to industry support, this is another positive addition to the many labs dedicated to this program;
- Teaches students to read piping and instrumentation diagrams (P&IDs), identify and troubleshoot equipment, operate simulators, and as a capstone course, run the Propylene Glycol Distillation Unit, which is PTAC 2438 Process Technology III - Operations;
- Earns industry support as students graduating from the program are endorsed by the North American Process Technology Alliance (NAPTA);
- Is recognized by the Texas Skill Standard Board (TSSB). Upon graduation with an AAS in Process Technology, students will earn the Texas Skill Standards recognized program seal affixed to their AAS credential; and
- Has participated and won the NAPTA National Troubleshooting Competition Championship three years in a row 2017, 2018, and 2019. In 2020 the event was cancelled due to COVID. In 2022 San Jacinto College placed second.

## Career Opportunities

Graduates of the San Jacinto College Process Technology program have the opportunity to work in:

- Chemical plants,
- Refineries,
- Wastewater treatment plants,
- Canneries,
- Pharmaceutical plants,
- Paper mills,
- Terminals,
- Pipelines, and
- Fuel storage depots.

## Earning Potential

Chemical Plant and System Operators: \$103,624 per year<sup>1</sup>

<sup>1</sup> Source: [texaswages.com](http://texaswages.com) (<http://texaswages.com>), median salary Gulf Coast region, 2023

For more information, students may contact:

Department Chair - 281-998-6350, x1188. Direct Line Office: 281-478-2712  
- [shawn.dickerson@sjcd.edu](mailto:shawn.dickerson@sjcd.edu)

## Campus

Central Campus

## Information

The Process Technology department is a direct link to the largest industry in the greater Houston area and the Texas Gulf Coast region. In the past, very little formal training was required prior to taking a job in the chemical process industry. However, companies in the Houston area now require more education for their entry-level technicians and are looking to community college graduates to meet those needs.

Students train in state-of-the-art process laboratory facilities similar to area refining and chemical plant environments. The College built its facility in cooperation with area petrochemical companies. San Jacinto College works closely with industry as a member of the North American Process Technology Alliance (NAPTA) to maintain a curriculum reflecting current technology standards.

Completion of the Process Technology curriculum can provide students with the technical skills required for entry-level positions as process technicians in petrochemical and related industries.

A Level 2 Certificate of Technology in Process Technology is still accepted by most of the industry; however, several industries have indicated they will hire only graduates with the Associate of Applied Science (AAS) degree. Future trends indicate that most of the petrochemical industry technicians will be required to have an AAS degree. Students who earn qualifications to be in the Chemical Lab Technician Specialty degree program after obtaining their AAS will sign up to pursue the Enhanced Skills Certificate (ESC). The student will then have the advantage of earning qualifications for being hired into either the operations division or laboratory department of a process plant because the ESC will make the student more marketable.

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.

## Enhanced Skills Certificate

The College designed the Enhanced Skills Certificate in Process Technology Chemical Technician for students who have completed the Process Technology Associate of Applied Science (AAS) degree.

## Plan of Study

EPROT-CT

Students may see the Process Technology, Associate of Applied Science (AAS) (<https://publications.sanjac.edu/areas-study/construction-industry-manufacturing-transportation/process-technology-aas/>) page for more information.

First Term		Credits
CHEM 1311 & CHEM 1111	General Chemistry I (lecture) and General Chemistry I (lab)	4
CHEM 2323 & CHEM 2123	Organic Chemistry I (lecture) and Organic Chemistry I (lab)	4
CHEM 1312 & CHEM 1112	General Chemistry II (lecture) and General Chemistry II (lab)	4
<b>Credits</b>		<b>12</b>
<b>Total Credits</b>		<b>12</b>