



Process Technician

| School | Program | Key Outcomes |
|--------------------------------------|--|--|
| San Jacinto College | AAS in Process Technology | Industry-standard training for petrochemical, refining, and power plant operations |
| College of the Mainland (Texas City) | AAS in Process Technology | Hands-on labs, simulation training, and strong employer partnerships |
| Lee College (Baytown) | AAS in Process Technology | Internships with local plants, prep for NCCER and TPC certifications |
| Lamar Institute of Technology | AAS in Process Operating Technology | Focus on safety systems, troubleshooting, and distributed control systems (DCS) |

| Level | Title | Key Duties | Typical Wage Range (Houston area) |
|-------------|--|--|--|
| Entry-Level | Operator Trainee, Process Tech I | Monitor control panels, sample product, assist with startup/shutdown | \$24–\$30/hr |
| Mid-Level | Process Technician, Board Operator | Operate distillation columns, reactors, compressors; DCS control | \$30–\$42/hr |
| Advanced | Lead Operator, Console Operator | Troubleshoot systems, lead shift team, train new techs | \$40–\$50+/hr |
| Specialized | Process Safety Tech, Control Room Specialist | Process safety reviews, emergency response coordination | \$45–\$55/hr (with experience or certifications) |

Top Employers Hiring Process Technicians

- **Petrochemical/Refining:** ExxonMobil, Dow, Covestro, Shell, Chevron Phillips, LyondellBasell
- **Energy/Utilities:** NRG Energy, Air Products, Enterprise Products Partners
- **EPC & Contractors:** KBR, Turner Industries, Worley, Zachry Group
- **Manufacturing & Midstream:** Ascend, Eastman, INEOS, Valero



Process Engineer

| Institution | Degree/Program | Focus Areas |
|--|------------------------------|---|
| University of Houston | B.S. in Chemical Engineering | Process design, simulation, optimization, safety |
| Texas A&M University (College Station) | B.S. in Chemical Engineering | Plant design, reaction engineering, process control |
| Prairie View A&M University | B.S. in Chemical Engineering | Fundamentals in thermodynamics, kinetics, process systems |
| Lamar University | B.S. in Chemical Engineering | Practical design, environmental engineering, safety practices |

| Level | Title | Key Duties | Typical Salary Range (Houston area) |
|--------------|---|--|-------------------------------------|
| Entry-Level | Process Engineer I | Assist in process design, data analysis, plant support | \$70,000–\$85,000/year |
| Mid-Level | Process Engineer | Process optimization, troubleshooting, safety compliance | \$85,000–\$110,000/year |
| Senior-Level | Senior Process Engineer | Lead projects, process improvement initiatives, mentor juniors | \$110,000–\$140,000/year |
| Specialized | Process Safety Engineer, Project Engineer | Risk assessments, HAZOP studies, capital projects | \$120,000–\$150,000+/year |

Top Employers Hiring Process Engineers

- Refining & Petrochemical:** ExxonMobil, Shell, Chevron Phillips, Dow, LyondellBasell, Covestro
- Energy & Power:** NRG Energy, Entergy, CenterPoint Energy
- Engineering & EPC Firms:** Fluor, Jacobs, KBR, Worley
- Manufacturing & Specialty Chemicals:** INEOS, Ascend Performance Materials, BASF



Maintenance Engineer

| Institution | Degree/Program | Focus Areas |
|---|---|--|
| University of Houston | Bachelor of Science in Mechanical or Industrial Engineering | Reliability engineering, maintenance management, systems design |
| Texas A&M University (College Station) | B.S. in Mechanical Engineering or Industrial Engineering | Asset management, predictive maintenance, engineering analytics |
| Prairie View A&M University | B.S. in Mechanical Engineering | Engineering fundamentals, project management, maintenance planning |
| San Jacinto College | Certificate or Associate in Industrial Maintenance Technology | Practical skills in mechanical/electrical maintenance, troubleshooting |

| Level | Title | Key Duties | Typical Wage Range (Houston area) |
|---------------------|--|--|-----------------------------------|
| Entry-Level | Maintenance Engineer I, Junior Engineer | Equipment reliability, failure analysis, assist maintenance teams | \$65,000–\$80,000/year |
| Mid-Level | Maintenance Engineer, Reliability Engineer | Predictive maintenance programs, root cause analysis, project leadership | \$80,000–\$100,000/year |
| Senior-Level | Senior Maintenance Engineer, Maintenance Manager | Oversee maintenance strategy, budgeting, vendor management | \$100,000–\$130,000/year |
| Specialized | Reliability Engineer, Asset Integrity Engineer | Advanced analytics, reliability centered maintenance (RCM), condition monitoring | \$110,000–\$140,000+/year |

Top Employers Hiring Maintenance Engineer

- Energy & Petrochemical:** ExxonMobil, Chevron Phillips, Shell, LyondellBasell, Covestro
- Utilities & Power:** CenterPoint Energy, NRG Energy, Entergy
- Engineering & EPC Firms:** Jacobs, Fluor, KBR, Worley
- Manufacturing:** Daikin, Honeywell, Sysco, Schlumberger



Millwright Technician

| School | Program | Outcomes |
|--|---|--|
| San Jacinto College | AAS in Industrial Maintenance or Millwright Technology | Prepares for installation, maintenance, and repair of industrial equipment |
| Lee College (Baytown) | AAS in Precision Machining & Millwright Training | Focuses on pumps, compressors, turbines, rigging, alignments |
| College of the Mainland | Industrial Trades / Mechanical Maintenance Certificates | Entry-level readiness for plant maintenance |
| Houston Community College (HCC) | Industrial Maintenance Mechanic Certification | Covers blueprint reading, hydraulics, welding, troubleshooting |
| Associated Builders & Contractors (ABC) – Houston Chapter | Millwright Apprenticeship (NCCER-certified) | Earn while you learn; pathway to journeyman status |

| Level | Title | Skills | Typical Wage Range (Houston area) |
|--------------------|---|---|---|
| Entry-Level | Millwright Helper, Apprentice | Basic mechanical tools, safety, rigging, measurement | \$18–\$25/hr |
| Mid-Level | Journeyman Millwright | Precision alignment, blueprint reading, motor installs | \$28–\$40/hr |
| Advanced | Lead Millwright, Supervisor | Team lead, diagnostics, maintenance planning | \$40–\$50/hr |
| Specialist | Rotating Equipment Tech, Reliability Tech | Laser alignment, vibration analysis, failure prevention | \$45–\$60/hr (depending on certs) |

Top Employers Hring Millwright Technician

Refining & Petrochemical: Chevron Phillips, Dow, Covestro, Marathon, ExxonMobil

Power & Utilities: NRG Energy, Entergy, CenterPoint Energy

Maintenance Contractors: Turner Industries, Zachry Group, Jacobs, Worley

Other Industry: Daikin, Anheuser-Busch, Coca-Cola, Sysc



Refrigeration Technician

| Institution | Program | Focus Areas |
|--|---|---|
| San Jacinto College | HVAC/Refrigeration Technology | Refrigeration cycles, system troubleshooting, HVAC fundamentals |
| Houston Community College (HCC) | HVAC Technician Certificate | Electrical controls, refrigeration systems, installation & repair |
| Lee College | Refrigeration & Air Conditioning Technology | Refrigerant handling, system maintenance, safety practices |
| Apprenticeship Programs (UA Local 68) | HVAC/Refrigeration Apprenticeship | Hands-on training, EPA certification, HVAC codes |

| Level | Title | Key Duties | Typical Wage (Houston area) |
|--------------------|-----------------------------------|--|-----------------------------|
| Entry-Level | Refrigeration Technician Trainee | Assist with installation, maintenance, refrigerant recovery | \$18–\$25/hr |
| Journeyman | Refrigeration Technician | Install, troubleshoot, and repair refrigeration and HVAC systems | \$25–\$38/hr |
| Senior | Lead Technician / HVAC Specialist | Lead projects, system design, preventive maintenance planning | \$38–\$50+/hr |

Top Employers Hiring Refrigeration Technicians

- **Industrial Facilities:** Refineries, petrochemical plants, food processing companies
- **Commercial HVAC Contractors:** Johnson Controls, Trane, Carrier, EMCOR Group
- **Facilities Management:** Hospitals, universities, commercial buildings
- **Cold Storage & Logistics:** Refrigerated warehouses and transport companies



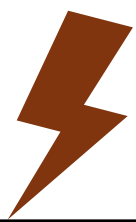
Pipefitter Technician

| Institution | Program | Focus Areas |
|--|---------------------------------|---|
| Houston Community College (HCC) | Pipefitting Apprenticeship | Pipe installation, welding, blueprint reading |
| San Jacinto College | Pipefitting Certificate | Safety, rigging, piping systems |
| Local Union Apprenticeships (UA Local 798) | 4-5 year Apprenticeship Program | Hands-on training, safety, welding certifications |
| Lee College | Industrial Pipefitting Program | Industrial piping, flange installation, rigging |

| Level | Title | Key Duties | Typical Wage Range (Houston area) |
|--------------|--------------------------|--|-----------------------------------|
| Apprentice | Pipefitter Apprentice | Assist with pipe cutting, fitting, welding, and installation | \$18–\$28/hr |
| Journeyman | Pipefitter | Install and maintain piping systems, weld pipes, read blueprints | \$30–\$45/hr |
| Lead/Foreman | Lead Pipefitter, Foreman | Supervise crews, ensure safety compliance, project coordination | \$45–\$60+/hr |

Top Employers Hiring Pipefitter Technicians

- **EPC & Construction:** KBR, Zachry Group, Fluor, Turner Industries
- **Oil & Gas & Petrochemical:** Covestro, Shell, ExxonMobil, Chevron Phillips, Dow
- **Shipbuilding & Industrial Fabrication:** Huntington Ingalls Industries, BAE Systems
- **Utilities & Power Plants:** CenterPoint Energy, NRG Energy



Instrumentation Technician

| School | Program | Focus Areas |
|---------------------------------|--|---|
| San Jacinto College | AAS in Instrumentation & Controls | Sensors, calibration, control systems, loop checks |
| Lee College (Baytown) | AAS in Instrumentation Technology | Process controls, troubleshooting, PLCs, DCS systems |
| College of the Mainland | Certificate / AAS in Instrumentation Technology | Hands-on lab training for industrial plants |
| Houston Community College (HCC) | Industrial Automation / Instrumentation | Measurement, electronics, pneumatics, logic controllers |
| Lamar Institute of Technology | AAS in Instrumentation Technology | Industry-grade training with a strong safety focus |

| Level | Title | Key Duties | Typical Wage Range (Houston area) |
|-------------|--|---|--|
| Entry-Level | Instrument Technician Helper, Apprentice | Assist with wiring, calibration, simple loop checks | \$20–\$28/hr |
| Mid-Level | Instrument Technician | Install & maintain transmitters, sensors, valves, and PLCs | \$28–\$42/hr |
| Advanced | Senior I&E Technician | Troubleshoot DCS/PLC systems, lead turnarounds, perform system startups | \$40–\$55/hr |
| Specialized | Analyzer Tech, Control Systems Tech, Automation Tech | Gas chromatographs, SCADA systems, advanced PLC/DCS integration | \$45–\$60+/hr (with experience and certs) |

Top Employers Hiring Instrumentation Technicians

- **Refining & Chemical:** Dow, Shell, Covestro, Chevron Phillips, LyondellBasell
- **Power & Utilities:** NRG, Entergy, CenterPoint Energy
- **EPC/Maintenance Contractors:** Zachry, Worley, Jacobs, Turner Industries
- **Automation Vendors:** Emerson, ABB, Siemens, Honeywell, Yokogawa



Laboratory Technician

| Institution | Program | Focus Areas |
|---------------------------------|---|--|
| San Jacinto College | A.A.S. in Lab Technology or Process Technology (with lab focus) | Instrumentation, quality control, lab safety, analytical methods |
| Lee College | Chemical Laboratory Technology Certificate | Chemistry fundamentals, lab instrumentation, QA/QC |
| Houston Community College (HCC) | Science Technician Certificate | Lab operations, chemical handling, reporting procedures |
| College of the Mainland | Process Technology with Lab Skills Electives | Technical lab experience, sampling protocols, plant systems |

| Level | Title | Key Duties | Typical Wage Range (Houston area) |
|--------------|---|--|-----------------------------------|
| Entry-Level | Lab Technician I | Sample collection, routine testing, equipment cleaning | \$20–\$28/hr |
| Mid-Level | Quality Control Technician, Lab Analyst | Chemical analysis, data validation, troubleshoot instruments | \$28–\$38/hr |
| Senior-Level | Senior Lab Tech, QA/QC Lead | Oversee lab procedures, maintain compliance, supervise team | \$38–\$50+/hr |

Top Employers Hiring Lab Technicians

- **Refining & Petrochemical:** ExxonMobil, Chevron Phillips, LyondellBasell, Shell, Dow
- **Specialty Chemicals & Plastics:** Covestro, INEOS, Ascend Performance Materials
- **Third-Party Testing Labs:** SGS, Intertek, Bureau Veritas
- **Environmental & Water Testing Facilities**