

Petrochemical Career Opportunities

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MANUFACTURERS ASSOCIATION

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PETROCHEMICAL CAREER OPPORTUNITIES

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PETROCHEMICAL CAREER OPPORTUNITIES

Production and Operations: Entry-Level

Shipment Loader

Do you like to be on the go? Want to find a job in a busy, team-oriented place? If so, then consider becoming a Shipment Loader. The physical demands of this role will keep you moving all the time. You'll manage loading bins and product transitions in addition to connecting loading equipment to hopper cars.

Your responsibilities include cleaning, inspecting, and preparing hopper cars for product loading. Next, you'll load hopper cars according to loading procedures, quality standards and safe practices. A Shipment Loader inspects and ensures loading equipment is working properly. You'll also check the weight of hopper cars after loading to ensure that weight does not go over regulations.

As a Shipment Loader, you'll do some record keeping. You'll maintain accurate loading records and tracking. Securing and labeling loaded hopper cars is also part of your work.

Safety and teamwork go hand-in-hand in this career. You'll wear protective clothing that may be required to transfer the product to ensure personal safety. Just as importantly, your duties include communicating with your supervisor on any problems as they occur.

While performing the duties of this job, you may be exposed to fast moving material handling equipment or other mechanical equipment. The noise level in the work environment usually is moderate. As a Shipment Loader, you must be able to lift 25 lbs. This job may require shift work.

Required Education: High School Diploma or GED

Salary: \$12-22/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Calculate Dimension/Tolerance • Check, Examine and Record • Comprehend and Follow Oral Instructions • Conform to Specifications • Machine Monitoring and Control • Operate Large Vehicles • Safety Regulations and Procedures • Shipping Routes and Methods • Team Player 	<ul style="list-style-type: none"> • Load railcar/truck according to loading instructions using gauges and/or strapping tables • Check and follow loading schedule, maintain loading records • Weigh railcar or truck prior to product transfer • Ensure that truck or railcar is positioned and secured at proper loading rack • Visually inspect the railcar or truck to be involved in the upcoming transfer • Communicate with facility supervisor on any problems as they occur

PETROCHEMICAL CAREER OPPORTUNITIES

Production and Operations: Entry-Level

Process Technician

Are you the kind of person who's always up for a challenge? Do you like being part of a team making a daily impact on company performance? If so, being a Process Technician could be a great fit for you.

As a Process Technician, you'll monitor the refining process for the fuels, chemicals, and plastics that make modern society possible - everything from milk jugs to medical devices. You will keep an eye on the performance of plant equipment and process conditions. You'll safely operate pumps, compressors, and other plant equipment, making changes to the operating process as needed to maintain product quality.

You will also operate control room instrumentation systems and be responsible for collecting samples of products for laboratory testing.

Experience Needed: You'll need both strong problem-solving and communication skills. You must also have a good foundation in both math and science to be successful as a Process Technician.

Required Education: Associate Degree

Preferred Education: Associate degree in process technology, chemistry or engineering technology

Salary: \$20-30/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Chemistry Knowledge • Create Solutions to Complex Problems • Gather and Collect Data • Gathering Information Through Observation • Mathematics Knowledge • Monitor Processes, Materials, and Surroundings • Monitor Specifications • Operate Machines • Systems Analysis and Evaluation 	<ul style="list-style-type: none"> • Safely operate pumps, compressors, reactors, and other plant equipment • Monitor performance of plant equipment and process conditions • Read flow meters and temperature and pressure gauges • Take routine readings on process variables • Operate control room instrumentation systems • Ensure environmental compliance • Collect product samples for laboratory testing • Test process streams as needed

PETROCHEMICAL CAREER OPPORTUNITIES

Production and Operations: Mid-Level

Operations Manager

Do you see things at the "bigger picture level"? Do you enjoy helping others to develop to their full potential? If so, a career as an Operations Manager may be a great fit for you.

A primary job of an Operations Manager is employee management and development. You'll help foster team and individual professional growth. You'll also coach employees to help meet the business and plant goals. Your job will be to further develop a well-trained and engaged group of employees. In this role, you'll also lead site communication and recognition efforts for your team.

As an Operations Manager, continuous improvement related to plant production is also important. You'll help promote Six Sigma efforts to make global work processes work better. You will assist in developing operations-related plans, budgets, and policies and procedures.

Experience Needed: This position typically requires a Bachelor's degree. A Six Sigma certification is also beneficial in this role.

Required Education: Bachelor's degree in engineering or operations management

Preferred Education: Master's degree in operations management, business or related field

Salary: \$22-45/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Collaboration • Continuous Improvement • Create and Modify Budgets • Leadership • Manage Personnel Resources • Manage Processes and Procedures • Organizing, Planning, and Prioritizing Work • Six Sigma Certification • Train and Motivate Others 	<ul style="list-style-type: none"> • Oversee plant operations and all employees • Maintain high standard of customer service • Monitor production output, product quality and on-time delivery • Recruit, manage and develop plant staff • Collect and analyze data in order to increase efficiency • Ensure compliance with all state, federal regulations and company policies • Oversee labor relations in a union environment • Maintain site assets and optimize equipment life cycle • Forecast labor requirements

PETROCHEMICAL CAREER OPPORTUNITIES

Production and Operations: Mid-Level

First Line Supervisor

Are your leadership skills sharp? Does the idea of a desk job make your face wrinkle? A job as a First Line Supervisor allows you to put your leadership skills to work while working out on the production floor. You'll be among the excitement and action of the manufacturing process all day. You'll assign tasks, train new employees, and make sure employees and products meet safety and quality standards.

A front line supervisor works with process environment employees and upper-level management. You will create schedules, inspect work areas and tools, investigate accidents, and test completed work. Fostering teamwork is an important responsibility. You'll listen to employee complaints and help to resolve issues. You may hold employee training sessions to ensure that every worker is updated on safety and company rules.

Your job will be to monitor employee and equipment performance. If there is a maintenance issue, you will report it and make sure it is repaired. You'll perform proper equipment use and perform quality checks on equipment and products. Any issue on the floor will be immediately reported to you. It's your job to fix it or find the right employee for the task.

Experience Needed: Front Line Supervisors are usually promoted from within. An understanding of the industry and 3-5 years supervisory or lead experience at a chemical plant will make you a perfect candidate for the job.

Required Education: High School Diploma or GED

Preferred Education: Associate degree or vocational training in a technical discipline

Salary: \$20-35/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Coordination with Multiple Departments • Deliver Visual, Written, and Oral Instructions • Leadership • Machine Monitoring and Control • Maintain Equipment • Operations Analysis and Monitoring • Process Management • Supervisory Practices • Train/Motivate Others 	<ul style="list-style-type: none"> • Enforce safety regulations • Perform line walks to ensure standardized work is being followed • Plan work schedules and assign duties to staff • Perform quality checks on equipment and products • Collaborate with workers and managers to solve problems • Explain work orders to employees • Evaluate and report on employee performance • Prepare records of employee time and wages, daily receipts, or inspection results

PETROCHEMICAL CAREER OPPORTUNITIES

Production and Operations: Senior-Level

Production Manager

If you're a work-with-your-hands kind of person who has great leadership skills then you'll thrive in the position of Production Manager. You'll be accountable for the results of your plant and relevant work processes. Being able to see and understand the bigger picture of the petrochemical process is a key to success in this role.

Safety is a top priority. Ensuring all environmental, health, and safety rules are being followed is key. You'll lead by example and provide coaching to employees to strive for continuous improvement. Your goal is an accident-free work environment.

As a leader, you'll also need to work with other department heads to ensure that the process is as efficient and effective as possible. You'll align plant operations with your company's goals and strategies.

Experience Needed: In order to qualify for this job, previous hands-on experience working on the production floor is helpful. Additional education in management or technical fields can also make you stand out. Look for training courses to give your resume a boost.

Required Education: Bachelor's degree in engineering

Preferred Education: Additional certificates such as Lean Certification. Operations or finance experience is needed.

Salary: \$25-40/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Business Fundamentals • Continuous Improvement • Coordination with Multiple Departments • Health, Safety and Environment Practices • Leadership • Operations Analysis and Monitoring • Process Management • Team Player • Train and Motivate Others 	<ul style="list-style-type: none"> • Ensure compliance of all environmental health and safety regulations • Facilitate employee development • Develop annual and long-term operating budgets • Conduct monthly analysis to ensure costs are in compliance with budgetary goals • Direct implementation and continuous improvement of all safety standards and practices • Coordinate production, processing, and distribution activities • Develop quality control systems to help identify production problems • Work with other supervisors to coordinate operations • Prepare production reports and personnel records

PETROCHEMICAL CAREER OPPORTUNITIES

Production and Operations: Senior-Level

Plant Supervisor

Plant Supervisors combine leadership and operational knowledge in a job that is detailed, yet exciting. No two days are ever alike. You are constantly working through problems and finding ways to help others with their own job responsibilities.

Teamwork and leadership are vital parts of this role. You'll hire staff and train them. You will also encourage great employee performance and promote positive working conditions. You'll also conduct appraisals and recommend personnel for promotion.

A commitment to safety is the most important part of your responsibilities. You'll oversee the plant to ensure that safety, health, environmental, and quality policies are followed. Your job will be to review and provide input into safety operating procedures.

As a Plant Supervisor, you will coordinate team activities and see to project completion. You'll also ensure completion of all reporting and recordkeeping requirements. Your goal is to improve efficiency and productivity in the plant.

If this sounds like something your talents are a fit for, keep reading.

Experience Needed: Companies will want to see that you have experience in a production environment with increasing responsibility during your career.

Required Education: Bachelor's degree in engineering, industrial technology or related discipline

Salary: \$45-60/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Coordination with Multiple Departments • Create and Stick to Timelines • Keeping Records • Leadership • Manage Material Resources • Manage Personnel Resources • Manage Processes and Procedures • Project Management • Safety Regulations and Procedures 	<ul style="list-style-type: none"> • Oversee plant operations and all employees • Maintain high standard of customer service • Monitor production output, product quality and on-time delivery • Recruit, manage and develop plant staff • Collect and analyze data in order to increase efficiency • Ensure compliance with all state, federal regulations and company policies • Oversee labor relations in a union environment • Maintain site assets and optimize equipment life cycle • Forecast labor requirements

PETROCHEMICAL CAREER OPPORTUNITIES

Production and Operations: Senior-Level

Unit Supervisor

Do you have a knack for understanding manufacturing operations but you're also a people person? A Unit Supervisor lets you do just that as you play an important role in carrying out the company's production goals. You'll need to demonstrate leadership skills direct manufacturing work in a safe and efficient manner.

In this role you will help to maintain an accident-free workplace by ensuring environmental, health, and safety standards are being followed. You'll also have the opportunity to help coach and develop technicians and operators through goal-setting and training. Supervisors also make sure shift teams are operating according to the production plans.

Continuous improvement is important in this role. You'll be involved in the day-to day operations to help discover new ways to improve the group's performance. You are also responsible for ensuring product quality is maintained and quality issues are addressed quickly.

You will communicate with unit leaders, engineers, the leadership team to ensure all safety, production, and cost goals are met. You'll also ensure communication on issues for oncoming shifts.

Experience Needed: To get this job, an Associate degree is often required. Experience with Six Sigma, and LEAN manufacturing will give you a leg up.

Required Education: Bachelor's degree in process technology or related technical field

Preferred Education: Bachelor's degree in related technical field

Salary: \$18-40/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Coordination with Multiple Departments • Deliver Visual, Written, and Oral Instructions • Health, Safety and Environment Practices • Lean Manufacturing Processes • Organizing, Planning, and Prioritizing Work • Process Management • Quality Control • Strong Communication Skills • Supervisory Practices 	<ul style="list-style-type: none"> • Promote safety practices and habits • Manage individual and team performance • Develop a capable and effective team through training and developing each operator • Ensure that equipment is properly operated, monitored, and maintained • Drive consistent operating standards and operating disciplines across all shifts • Lead shift team to operate in accordance with production plans • Communicate changes to the production plans and other work plans • Assist in planning and coordination of maintenance activities

PETROCHEMICAL CAREER OPPORTUNITIES

Maintenance: Entry-Level

Rigger

Are you perfectly comfortable maneuvering large vehicles? Do you like spending time around forklifts and trucks? As a Rigger, you'll spend your days attaching loads to rigging to provide support to move them.

To begin, you'll select gear such as cables, pulleys, and winches, according to load weights, sizes and work schedules. Next, you'll control the movement of heavy equipment through narrow openings or confined spaces, using large, sophisticated equipment. You'll tilt, dip, and turn suspended loads to maneuver around obstacles. When this part of the project is complete and the materials and equipment has been placed, you'll break down and store rigging equipment after use.

Other important parts of this job involve installing ground rigging for aligning, leveling, and anchoring machinery. You'll construct, set up, and repair rigging, hoists, and pulling gear, using hand and power tools. With your expertise, you'll be able to move or support materials such as heavy equipment. And you'll attach pulleys and blocks to fixed overhead structures such as beams and ceilings using bolts and clamps. This is a great way to break into this exciting industry.

Experience Needed: Much of this work is done by operating vehicles such as forklifts and passenger vehicles.

Required Education: High School Diploma or GED

Preferred Education: NCCER advanced rigging and/or equivalent certification

Salary: \$15-25/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Calculate Dimension/Tolerance • Comprehend and Follow Oral Instructions • Equipment Selection • Inspect Equipment • Install and Dismantle Equipment • Mechanical Tools, Equipment, and Systems • Operate Machines • Precise Hand/Eye Coordination • Safety Regulations and Procedures 	<ul style="list-style-type: none"> • Select cables, ropes, pullup, winches, blocks and sheaves according to weight and size of load to be moved • Attach pullup and blocks to fixed overhead structures, such as beams, ceilings and gin pole boom with bolts and clamps • Attach load with grappling devices, such as loops, wire rope and chains to crane hook • Give direction to operator engaged in hoisting and moving loads to ensure safety of workers and material handled • Set up, brace and rig hoisting equipment using hand tools and power wrenches • Responsible for observing and monitoring others observance of all safety rules

PETROCHEMICAL CAREER OPPORTUNITIES

Maintenance: Entry-Level

Maintenance Mechanic

Can you fix just about anything if you have the right tools? Are you a whiz at home improvement? Maintenance Mechanics spend their days doing repairs and upkeep on various pieces of manufacturing and transportation equipment. You'll also be responsible for general building repairs. You'll be the person who makes sure that everything works.

You'll report to a Maintenance Supervisor and file reports when you've finished with repairs, making sure to keep track of which machines are safe and efficient. You'll be working with machines that might be dangerous, so you'll need to know safety procedures and keep those in mind at all times. Some of the repairs you make might require you to go into small spaces, climb ladders, work in high heat, lift heavy objects, and listen to loud noises. Being in good physical shape is crucial for this role.

You'll need to know how the equipment works and runs in order to be a Maintenance Mechanic. You'll read technical drawings and written instructions when a repair is beyond your scope. You may work as part of a team of technicians on more complex projects. This job may require shift work.

Experience Needed: While many employers offer on-the-job training, it's important to have some background in the principles of mechanics as a starting point. Previous experience or training will help.

Required Education: High School Diploma or GED

Preferred Education: Maintenance license a plus

Salary: \$12-24/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Comprehend and Follow Oral Instructions • Comprehend Technical Drawings and Other Visual Instructions • Inspect Equipment • Keeping Records • Maintain Equipment • Mechanical Tools, Equipment, and Systems • Repair Machines and Equipment • Safety Regulations and Procedures • Troubleshooting 	<ul style="list-style-type: none"> • Control the operation of all production equipment by performing mechanical, electrical, electronic repair and preventive maintenance • See that preventative maintenance program is followed • Provide emergency/unscheduled repairs in a timely manner • Observe all OSHA and facility safety rules and regulations including the use of personal protective equipment; report all injuries, accidents and hazards immediately • Promote equipment safety and develop programs to respond to unexpected/emergency situations • Read equipment manuals assure appropriate operation and repair of equipment • Audit and monitor systems, equipment logs, program logs and team effectiveness • Monitor, complete, and maintain efficient and accurate paperwork as needed

PETROCHEMICAL CAREER OPPORTUNITIES

Maintenance: Entry-Level

Pipefitter

Did you love to play with Legos and build things as a kid? Was it fun to see how you could fit different parts together to create something bigger? If you answered, 'yes', a career as a Pipefitter could be a great fit for you.

This is a great way to enter the industry. Pipefitters typically layout, assemble, install, and repair pipelines or pipe systems that carry water, steam, air or other liquids or gases for industrial production and process systems. As a Pipefitter, you'll apply your pipe system knowledge and blueprint reading capability to select pipe size and type. You'll also select other related equipment and materials such as pipe supports, hangars, and support systems according to required specifications. You will study building plans and working drawings to better understand how the whole system fits together.

Pipefitters plan the sequence of installation to avoid obstructions and then build and join piping by a variety of different joints, depending on the material of the pipe and need for the job. You will bend pipe by hand or with pipe bending tools or machinery. Testing pipe systems for leaks by increasing pressure in pipes and observing gauges is another important aspect of this career.

Learn more about how to become a Pipefitter by visiting SteelToePro.com. If you're ready to begin your career in this exciting industry, create your free profile today!

Required Education: Certificate of Completion in pipefitting technology or pipefitter helper

Preferred Education: Associate degree in pipefitting technology

Salary: \$20-30/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Calculate Dimension/Tolerance • Check, Examine and Record • Conform to Specifications • Create Solutions to Complex Problems • Equipment Selection • Install and Dismantle Equipment • Mechanical Tools, Equipment, and Systems • Read Technical Drawings and Blueprints • Troubleshooting 	<ul style="list-style-type: none"> • Install pipes and fixtures • Measure and then cut and bend lengths of pipe as needed • Connect pipes using various methods such as soldering, screwing together, welding, etc. • Study blueprints and follow state and local building codes • Determine the amount of material and type of equipment needed • Inspect and test installed pipe systems and pipelines • Troubleshoot systems that are not working • Replace worn parts

PETROCHEMICAL CAREER OPPORTUNITIES

Maintenance: Entry-Level

Machinist

Are you skilled with tools and repair work? Interested in working with machines in an exciting environment? As a Machinist, you'll operate complex machinery and work with a team of Machinists. There's no chance of boredom in this role with the job variety available on a daily basis. Machinists use a number of powerful tools and equipment to produce accurate metal parts and instruments that can be used in other automated products or equipment like an engine. Some are manually controlled and some use computer numerical control (CNC). Therefore, you will work with your hands and computers. It is also common to work in a team of Machinists, so you'll need to be able to communicate and work well with others.

Your job will be to start, run, and stop the machine based on technical drawings and blueprints to create the part. You will always check to make sure the machine is functioning properly and change the settings on the machine as needed. You will work with a variety of materials including stainless steel, aluminum, plastics, and others. It's important to follow all safety processes and procedures and keep the machines clean and in proper working order. This job may require shift work.

Experience Needed: Being a Machinist requires previous experience. Many companies look for formal [training and certifications](#) on a resume.

Required Education: High School Diploma or GED

Preferred Education: Certificate of Completion or an Associate degree in industrial systems

Salary: \$15-25/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Comprehend Technical Drawings and Other Visual Instructions • Inspect Equipment • Machine Monitoring and Control • Maintain Equipment • Mechanical Tools, Equipment, and Systems • Operate Machines • Repair Machines and Equipment • Team Player • Troubleshooting 	<ul style="list-style-type: none"> • Review and work from blueprints, computer-aided design (CAD), and other materials • Set up, adjust, or operate basic or specialized machine tools • Turn mill, drill and grind machine parts to certain parameters • Monitor the feed and speed of machines during the machining process • Measure, examine, or test completed products to check for defects • Maintain machine tools to proper working conditions • Operate equipment to verify operational efficiency • Plan and troubleshoot the production process

PETROCHEMICAL CAREER OPPORTUNITIES

Maintenance: Mid-Level

Millwright

If you like to take things apart and put them back together you may find a career as a Millwright to be to your liking. You will troubleshoot and repair machinery and heavy equipment around the plant as a Millwright. It's a physically demanding job in an exciting environment.

Millwrights are highly skilled and have a solid understanding of how the machines work to repair them when they break down. Repairing machines typically involves taking the machine apart and then putting it back together. An ability to read equipment blueprints, access information from manuals, and knowledge of hand and measurement tools is necessary. When making repairs, you'll need to follow all safety processes and procedures and wear the necessary safety gear.

As a Millwright, you may also help recommend new equipment when it is time to replace outdated or broken equipment. You will help to oversee the installation of the new equipment. You will also perform preventative maintenance on machines to keep everything working smoothly so production stays on schedule. This job may require shift work.

If you are interested in a career as a Millwright, a high school diploma is required, but many employers prefer someone who has completed a training or a program at a community college. Learn more about this career at SteelToePro.com and create your free profile today.

Experience Needed: Many employers prefer someone who has completed a training or a program at a community college. Learn more about this career at SteelToePro.com.

Required Education: High School Diploma or GED

Preferred Education: Associate degree in industrial systems or applied science. Certificate in industrial systems or Certificate in industrial systems, millwright

Salary: \$20-25/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Calculate Dimension/Tolerance • Equipment Selection • Install and Dismantle Equipment • Maintain Equipment • Mathematics Knowledge • Mechanical Tools, Equipment, and Systems • Operate Machines • Repair Machines and Equipment • Troubleshooting 	<ul style="list-style-type: none"> • Troubleshoot and repair equipment failures • Disassemble and reassemble machinery and equipment as needed • Perform routine and preventative maintenance on machines and equipment • Review and update maintenance equipment procedures • Work to improve reliability of equipment • Ensure parts are available for jobs in order to keep the team working • Adhere to all safety processes and procedures

PETROCHEMICAL CAREER OPPORTUNITIES

Maintenance: Mid-Level

Welder

Are you skilled with your hands and calm under pressure? Interested in making things for a living? As a Welder, you'll be able to do all of this in an exciting environment. It will require a steady hand, lots of physical strength, and an eye for quality and detail.

Welders use high heat in order to attach two metals together. You'll need to be able to read technical drawings and set up various components and parts accordingly, then weld them using a torch. You may need to spot flaws in materials and designs, troubleshoot broken areas, and know how to fix worn parts and/or equipment. You might work with a partner or in a team, which will require excellent communication skills and a concern for others. You'll need to keep in mind safety codes and regulations at all times and report any unsafe activity or situations. Other tools will also be used and will vary depending on the project and materials.

Learn more about how to become a Welder by visiting the SteelToePro.com. You can also read more about Construction Crafts and learn how to get a great career in Construction.

Experience Needed: Potential employers will expect you to take some training before applying for the job. Look for [vocation or certification courses, or a degree](#) that offers hands-on experience. An apprenticeship program is another way to try out welding and gain experience.

Required Education: Technical certificate or Associate degree in welding

Preferred Education: Associate degree in welding or a welding certification

Salary: \$20-30/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Attention to Detail • Comprehend Technical Drawings and Other Visual Instructions • Create Solutions to Complex Problems • Mathematics Knowledge • Physics Knowledge • Position and Weld Parts • Precise Hand/Eye Coordination • Safety Regulations and Procedures • Team Player 	<ul style="list-style-type: none"> • Weld components in flat, vertical, or overhead positions • Operate safety equipment and use safe work habits • Position and secure parts prior to assembly • Measure and examine workpieces for defects • Set up and operate hand and power tools such as welding equipment • Weld separately or in combination, using aluminum, stainless steel, cast iron, and other alloys

PETROCHEMICAL CAREER OPPORTUNITIES

Maintenance: Mid-Level

Reliability Engineer

Do you like working with machinery and equipment? Is finding out how machines can function better fun and interesting for you? You may enjoy a career as a Reliability Engineer. You'll make sure that every piece of equipment is working efficiently and safely, and that machines are up to various standards and codes.

You'll make recommendations to [Production and Operations](#) for equipment repairs or replacement. Your expertise will allow you to provide technical advice to [Mechanical Engineering](#) and maintenance employees. Another important part of your job will be to develop maintenance projects based on the problems you see.

Using your expertise, you'll perform reliability studies on equipment and determine solutions. Part of your job will be to review and provide technical input into projects, particularly in the review of plans and specifications in mechanical design and maintenance of facilities.

Required Education: Bachelor's degree in Mechanical Engineering

Preferred Education: Lean Six Sigma certification preferred

Salary: \$45-55/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Analytical Thinking • Comprehend Technical Drawings and Other Visual Instructions • Create Solutions to Complex Problems • Engineering Principles • Manage Multiple Tasks and Timelines • Organizing, Planning, and Prioritizing Work • Project Management • Systems Analysis and Evaluation • Understanding of Regulatory Requirements 	<ul style="list-style-type: none"> • Provide mechanical engineering consultation • Monitor installation or modifications to facilities and provide technical guidance during installation • Maintain and improve mechanical reliability program • Work with reliability technicians to monitor conditions • Provide training as needed • Develop procedures as needed for reliability and mechanical integrity • Work with unit inspectors inspection recommendations • Follow all health and safety policies and guidelines

PETROCHEMICAL CAREER OPPORTUNITIES

Maintenance: Mid-Level

Maintenance Engineer

Do you enjoy spending time in your workshop? Are tools the best gift you could ever receive? As a Maintenance Engineer, you'll work with machines all day. You'll need a strong grasp of mathematical formulas and engineering principles.

You'll be an expert on the manufacturing process and the individual machines that make it up. Every issue on the production line will be reported to you, then you'll use your knowledge on the workings of each machine to find a solution. You'll decide which machines are the most efficient for a specific production system. Every decision will be made based on factors like budget, efficiency, energy, time, and quality.

You may be asked to get your hands dirty on the production floor. You'll interpret data from gauges and screens. Then you'll make adjustments or repairs to keep the assembly line moving correctly. You'll direct maintenance crew operations on complex problems by creating technical drawings or writing down instructions. As an engineer you'll design tests that affect the operation of all the machines in the manufacturing plant.

Experience Needed: You'll need a [bachelor's degree](#) in mechanical engineering to secure a job. The program will involve courses in computer-aided design, engineering principles. You also need to understand math and technical drawings. Additional experience and hands-on training is a great way to stand-out in the field.

Required Education: Bachelor's degree in mechanical engineering

Preferred Education: Master's degree in mechanical engineering

Salary: \$45-55/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Analytical Thinking • Analyzing Data • CAD or AutoCAD Software • Comprehend Technical Drawings and Other Visual Instructions • Engineering Principles • Maintain Equipment • Manufacturing Processes and Systems Knowledge • Mathematics Knowledge • Operational Sequences • Process Management 	<ul style="list-style-type: none"> • Apply state of the art technology for design and analysis of equipment. • Develop, revise and maintain mechanical documentation • Read and interpret blueprints, technical drawings, or computer-generated reports • Exhibit safety leadership • Select, install, operate, and maintain mechanical systems and processes to meet requirements • Recommend design modifications to eliminate machine or system malfunctions • Conduct research that tests or analyzes the feasibility, design, operation, or performance of mechanical systems • Diagnose faulty equipment operation and make recommendations to maintenance crew

PETROCHEMICAL CAREER OPPORTUNITIES

Maintenance: Mid-Level

Analyzer Technician

Do you like keeping things in good working order? Do you like to work on and maintain equipment? As an Analyzer Technician, you'll spend your day regulating instruments and equipment. Your work will be vital in keeping the plant and its operations going strong.

Analyzer Technicians make a great living and are in high demand. They **install, calibrate, and maintain** some of the most intricate instrumentation in the world. They are highly skilled. They are vital for the control of processes and environmental compliance. Analyzer Technicians carry out all aspects of maintenance, modification, calibration and testing of analyzer instruments. You'll perform specialized instrumentation troubleshooting and scheduled maintenance procedures for plant analyzer instruments.

With your skills as an Analyzer Technician, you will watch out for equipment failures. You'll perform preventative maintenance and take corrective action necessary to ensure things stay in good working order. You'll get to improve existing process analyzer systems while working with others on your team. Part of your work will also be to repair any part of the process analyzer loop. This includes components of the sample systems (tubing, valves, fittings) when needed.

You'll work with Operations workers to resolve process and instrument-related problems, which requires an in-depth knowledge of the process and its control systems. You will have the opportunity to direct and participate in the inspection & testing of completed work ensuring standards and quality goals are met. This job may require shift work.

Required Education: Certificate of Completion in instrumentation technology from an accredited training provider

Preferred Education: Associate degree in instrumentation technology

Salary: \$35-40/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Attention to Detail • Check, Examine and Record • Conform to Specifications • Gathering Information Through Observation • Inspect Equipment • Maintain Equipment • Mechanical Tools, Equipment, and Systems • Monitor Processes, Materials, and Surroundings • Operate Machines 	<ul style="list-style-type: none"> • Conduct routine monitoring and maintenance to provide the highest possible availability of all analyzer systems • Report problems and possible solutions to supervisor • Receive instructions, work orders and safety permits for the troubleshooting, repair, calibration, replacement or overhaul requirements of equipment • Complete modifications, changes and data collection of analyzers and sample systems • Perform routine monitoring of sample handling systems and gas cylinder replacements • Maintain calibration gases for analyzers • Ensure that all the work is carried out according to safe working procedures, safety permits, and regulations

PETROCHEMICAL CAREER OPPORTUNITIES

Maintenance: Mid-Level

Instrument Technician

Do you love working with technology? Are you detail-oriented? A career as an Instrument Technician might be a great fit for you.

Instrument Technicians are highly skilled technologists. The great news is you can start working in this role with a high school diploma. As an Instrument Technician, you'll consult manufacturers' manuals to determine test and maintenance tasks. You will also use testing devices to inspect and test instruments and system operations and diagnose problems. This job also involves installing and maintaining instruments on new or existing plant equipment and processes.

Instrumentation Technicians work with a wide variety of devices to measure and control pressure, flow, temperature, level, motion, force, and chemical makeup. You will get to work with Engineers on basic design and sometimes consult with and advise Process Technicians. In this role, you will perform risk assessments. Part of your job will also be to repair, maintain and adjust system components or replace defective parts.

There is a shortage of Instrument Technicians in the Gulf Coast area. This shortage will only increase as many technicians retire in the next five to ten years. If you love working with technology, a career as an Instrument Technician is a great fit for you. [Check out great training programs](#) to help you land one of these great paying jobs! This job may require shift work.

Required Education: Associate degree in applied sciences or industrial instrumentation or equivalent apprenticeship

Preferred Education: Instrument technician certification preferred

Salary: \$30-40/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Check, Examine and Record • Comprehend Technical Drawings and Other Visual Instructions • Coordination with Multiple Departments • Inspect Equipment • Install and Dismantle Equipment • Maintain Equipment • Mechanical Tools, Equipment, and Systems • Operate Machines • Understanding of Regulatory Requirements 	<ul style="list-style-type: none"> • Follow plant policies and repair procedures • Calibrate, troubleshoot, repair and replace process instruments as a part of the plant's maintenance program • Maintain process instruments including valves, vibration monitors and other instruments • Perform required environmental compliance testing and documentation • Reduce cost of repairing equipment while maintaining or increasing the quality of repairs • Work closely with plant operations to evaluate both routine and emergency instrument work • Wear proper safety equipment in appropriate areas • Be able to move in and around process equipment and confined spaces

PETROCHEMICAL CAREER OPPORTUNITIES

Maintenance: Mid-Level

Electrician

Are you a problem solver? Do you like to work with your hands? Electricians are always on the go working on electrical systems and machines. You'll do everything from installation to diagnosing and resolving electrical problems. You'll apply electrical theory to build, repair, calibrate, and modify electrical components, circuitry, and machines. Your safety and that of others is a top priority. You always need to wear personal protective gear to be in compliance with rules and policies.

Other duties include routine maintenance, locating and correcting power failures and short circuits. You'll also perform mechanical repairs as needed. You will also document work and update files as needed. Many tasks will require the use of hand and power tools, so you'll be reading manuals, technical drawings, and wiring diagrams. All work you do must comply with federal, state, and local electrical codes and regulations.

Electricians perform a wide range of physical activity such as climbing, bending, stooping, and kneeling. You'll also be performing duties at a variety of heights, sometimes on a ladder or an electronic lift. This job may require shift work.

Experience Needed: Many Electricians have an [Associate degree](#) and some companies require completion of an Apprenticeship program. You may be able to substitute three or more years experience as an electrician in an industrial setting for a degree or certificate. Find out more about what it takes to be an Electrician at [SteelToePro.com](#).

Required Education: Certificate from accredited apprenticeship program

Preferred Education: Associate degree or certificate in electrical technology or related field

Salary: \$18-42/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Attention to Detail • Check, Examine and Record • Comprehend Technical Drawings and Other Visual Instructions • Electrical Systems Knowledge • Inspect Equipment • Maintain Equipment • Precise Hand/Eye Coordination • Repair Machines and Equipment • Safety Regulations and Procedures 	<ul style="list-style-type: none"> • Comply with all health, safety, and environmental practices and policies • Perform routine scheduled and unscheduled electrical troubleshooting, repair, and calibrations • Work on circuits, motor control systems, and switch gears • Read electrical schematics and blueprints • Inspect, maintain, troubleshoot power distribution and power transformers • Participate in site-wide process safety and risk reduction activities as requested • Maintain prints and files in proper place • Document work and update procedures, drawings, specs, and files

PETROCHEMICAL CAREER OPPORTUNITIES

Maintenance: Senior-Level

Maintenance Supervisor

Do you make all the repairs around your house? Do you travel with a toolbox? A job as a maintenance supervisor will give you the opportunity to put those handyman skills to work. You'll oversee other maintenance department employees and provide training to others. Your days will be spent in every part of the facility. Most of your time will be on the production floor, where equipment may need routine maintenance and repairs.

Your leadership skills will be put to the test as you lead the department in making sure all machines work right. You'll create or read maintenance reports and advise management on machine updates. Handling employee schedules and tasks will require a fair hand. You'll need to train new employees and take over repair jobs that are too complex for technicians and mechanics.

Maintenance Supervisors also need to perform administrative work like managing budgets and inventory. You'll coordinate the work that needs to be done, always making sure that the facility is in perfect working condition.

Experience Needed: Maintenance Supervisors typically have a [degree](#) and some experience working in the field. Look for a program in management or electrical or mechanical engineering

Required Education: Bachelor's degree in planning and administrative studies, or mechanical or electrical engineering

Preferred Education: Master's degree in planning and administrative studies

Salary: \$20-30/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Communication with External Entities • Create and Modify Budgets • Leadership • Maintain Equipment • Manage Personnel Resources • Organizing, Planning, and Prioritizing Work • Prepare Documents and Reports • Supervisory Practices • Train and Motivate Others 	<ul style="list-style-type: none"> • Oversee activities of maintenance department • Schedule and manage preventative maintenance activities • Oversee outside contractors performing installations, projects, and repairs at the facility • Direct safety team activities • Develop measures to improve production methods, efficiency, equipment performance, and quality of product • Maintain time and maintenance records • Ensure accurate parts inventory • Manage maintenance budget, projects, inventory, headcount and labor costs • Upgrade equipment for speed/quality • Work with local utility companies for plant related problems

PETROCHEMICAL CAREER OPPORTUNITIES

Health, Safety & Environment: Entry-Level

Site Security Specialist

Do you enjoy the sense of security that comes with knowing everything is locked up tight? If so, a career as a Site Security Specialist may be a great fit for you.

As a Site Security Specialist, your job will be to assist the security team with daily security operations. You'll watch for both internal and external security threats and risks. In addition, you'll advise management about security issues. Part of your job will be to find weak spots and protect the company and the plant.

You may also develop and use security protocols and ensure that people follow security rules. You'll also get to work with the electronic security systems for the facility (video, access control, alarm).

In this role, you'll get to perform regular inspections of and routine maintenance on physical security parts and makes arrangements for required repairs. As a Site Security Specialist you may also prepare reports and conduct investigations of security incidents. You might also work with local law enforcement officials. This job may require shift work.

Required Education: High School Diploma or GED

Preferred Education: Associate or bachelor's degree in business or criminal Justice

Salary: \$20-30/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Communication with External Entities • Coordination with Multiple Departments • Gathering Information Through Observation • Monitor Processes, Materials, and Surroundings • Prepare Documents and Reports • Security Regulations and Procedures • Systems Analysis and Evaluation • Team Player • Understanding of Regulatory Requirements 	<ul style="list-style-type: none"> • Monitor the overall security status of site facilities • Develop and implement local security protocols • Respond to employee queries about security issues • Ensure compliance with both corporate and local security policies and procedures • Set up and authorize visitor badges • Back-up to performing weekly security audits and monthly virus updates and scan on company systems • Work with law enforcement agencies throughout the region and assist with investigations and testimony as needed

PETROCHEMICAL CAREER OPPORTUNITIES

Health, Safety & Environment: Entry-Level

Security Coordinator

Are you the member of your family that's always making sure the house or car is locked? You might be a great Security Coordinator.

In this role, you'll coordinate and evaluate security programs to monitor the plant security risks from inside or outside the plant. As a Security Coordinator, you'll work to ensure programs are effective. You'll also perform regular inspections on security systems and make arrangements for repairs.

In this role, you may have the duty of maintaining the automated security systems and employee ID card system. A Security Coordinator often also serves as the point of contact for security system issues. Good communication is important since one of your duties may also be to provide training to employees on use and features of security systems.

Experience Needed: A Security Coordinator should have a general knowledge and/or experience in industrial safety. A strong knowledge of OSHA is required.

Required Education: High school diploma or GED

Preferred Education: Associate degree in security administration, security management or related field.

Salary: \$20-35/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Communication with External Entities • Create and Modify Budgets • Leadership • Maintain Equipment • Manage Personnel Resources • Organizing, Planning, and Prioritizing Work • Prepare Documents and Reports • Supervisory Practices • Train and Motivate Others 	<ul style="list-style-type: none"> • Oversee activities of maintenance department • Schedule and manage preventative maintenance activities • Oversee outside contractors performing installations, projects, and repairs at the facility • Direct safety team activities • Develop measures to improve production methods, efficiency, equipment performance, and quality of product • Maintain time and maintenance records • Ensure accurate parts inventory • Manage maintenance budget, projects, inventory, headcount and labor costs • Upgrade equipment for speed/quality • Work with local utility companies for plant related problems

PETROCHEMICAL CAREER OPPORTUNITIES

Health, Safety & Environment: Entry-Level

Safety Coordinator

Are you detail oriented? Does a career making sure that others are safe appeal to you? As a Safety Coordinator, you'll be involved in many aspects of plant safety.

As a Safety Coordinator, you'll organize a detailed, day-to-day Health and Safety program. Your in-depth knowledge of plant safety standards will be a key to your success. With guidance from the Health, Safety, and Environment (HSE) Manager, you'll see to it that all plant needs are covered in the Health and Safety program.

Your ability to work positively with others will play in important role as a Safety Coordinator. You will serve as the plant contact for safety issues. And, you'll act as a resource for safety information on company guidelines and standards. As a Safety Coordinator, you'll also coach employees on safety-related tasks and activities.

Under the supervision of HSE leadership, you'll coordinate safety monitoring, data collection, analyzing and reporting for the plant.

Experience Needed: A Safety Coordinator, you'll need to have a general knowledge of industrial safety. Some work experience may be considered instead of an [associate degree](#). A strong knowledge of OSHA regulations is needed to be successful in this role

Required Education: High school diploma or GED

Preferred Education: Associate degree in safety management technology, occupational safety and health technology, or related field

Salary: \$15-30/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Analyzing Data • Attention to Detail • Check, Examine and Record • Gather and Collect Data • Keeping Records • Safety Regulations and Procedures • Strong Communication Skills • Team Player • Train and Motivate Others • Understanding of Regulatory Requirements 	<ul style="list-style-type: none"> • Gain a thorough understanding of plant safety guidelines and procedures • Assist in developing and achieving area or plant safety goals • Ensure that compliance tasks are completed • Organize safety monitoring, data collection, analyzing and reporting for the plant • Act as the plant resource for related safety information on procedures, guidelines and standards • Assist teams and individuals on safety related tasks and activities

PETROCHEMICAL CAREER OPPORTUNITIES

Health, Safety & Environment: Entry-Level

Health, Safety, and Environment Technician

Do you want to work to ensure that those around you are safe? A career as a Health, Safety, and Environment (HSE) Technician may be great for you.

An important part of your job will be to coordinate existing health and safety programs for the plant. Your work will also ensure compliance with safety and work environment laws, regulations, and standards both inside and outside of the plant. You'll also help monitor long-term health and safety goals and implement larger health and safety programs for the company. As a Health, Safety, and Environment Technician, you will work closely with health and safety leadership and plant personnel to ensure full compliance and enhanced safety awareness.

You'll also participate in and provide data for safety audits, lending your expertise on company safety policies. Your knowledge of safety practices regulations will be key as you use this knowledge to keep the people around you safe. If this is something you're passionate about, this career may be a great fit for you.

This job may require shift work.

Required Education: High school diploma or GED

Preferred Education: Associate degree or vocational training in health & safety or related field

Salary: \$15-25/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Attention to Detail • Check, Examine and Record • Collaboration • Environmental Regulations • Health, Safety and Environment Practices • Keeping Records • Safety Regulations and Procedures • Team Player • Understanding of Regulatory Requirements 	<ul style="list-style-type: none"> • Work with the plant to ensure health and safety issues are addressed promptly • Supply, operate, or maintain personal protective equipment • Test workplaces for environmental hazards • Verify availability or monitor use of safety equipment • Maintain all required environmental records and documentation • Ensure plant reporting tools are accurate and maintained • Perform and assist with environmental calculations • Lead and participate in incident investigations

PETROCHEMICAL CAREER OPPORTUNITIES

Health, Safety & Environment: Entry-Level

Occupational Health and Safety Hygiene Technician

Do you have great attention to detail? Are you safety-oriented? If so, a career as an Occupational Health & Safety Hygiene Technician may be right for you.

Safety is your number one concern in this role. You will complete a safety orientation program and attend regularly scheduled safety training afterwards. It's important to follow safety and personal protective equipment policies. You'll be on the lookout for unsafe conditions; report them to your supervisor.

You'll also assist in the collection and analysis of data from sampling, reports, maps, drawings, and tests to evaluate and plan projects. Part of this work will be to help define what work needs to be done in complex lab or field investigations to measure and sample from an environmental standpoint.

Experience Needed: At least 2 years experience in industrial related job

Required Education: Associate degree in health and safety or related field

Preferred Education: Bachelor's degree in Health and Safety or related field

Salary: \$18-30/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Analytical Thinking • Attention to Detail • Collaboration • Gather and Collect Data • Health, Safety and Environment Practices • Monitor Processes, Materials, and Surroundings • Safety Regulations and Procedures • Team Player • Understanding of Regulatory Requirements 	<ul style="list-style-type: none"> • Maintain knowledge of regulatory systems and procedures • Test workplaces for environmental hazards, such as exposure to radiation, chemical or biological hazards, or excessive noise • Verify availability or monitor use of safety equipment, such as hearing protection, safety glasses or respirators • Evaluate situations when a worker has refused to work on the grounds that danger or potential harm exists • Maintain all required environmental records and documentation • Supply, operate, or maintain personal protective equipment

PETROCHEMICAL CAREER OPPORTUNITIES

Health, Safety & Environment: Mid-Level

Process Safety Engineer

Are you the person that is always thinking about the "what ifs" in life? Do you like to be prepared by planning for a worst-case scenario? If so, you're calling may be a career as a Process Safety Engineer.

In this role, your main focus is helping production plants improve through risk identification and reduction from the design stage for new plants or on established projects at existing plants. You'll identify future problems and work to eliminate them. You'll inspect facilities, machinery, and safety equipment to identify and correct potential risks, and work to ensure safety regulation compliance.

Keeping employees safe is your top priority. A Process Safety Engineer will review employee safety programs to make sure they are at their best. You'll review plans for the building of new machinery to find out if all safety needs have been met. You'll recommend process and product safety features that will reduce employees' exposure to work hazards. If an industrial accident occurs, you'll find the causes. Then you'll recommend changes to prevent the accident from happening again.

Experience Needed: Previous experience in the manufacturing or chemical industry is very helpful and you'll need a Bachelor's degree in engineering, preferably in chemical or mechanical engineering.

Required Education: Bachelor's degree in engineering

Preferred Education: Master's degree in chemical or mechanical engineering; Loss Prevention Principles; Fire & Exposure Index; Chemical Exposure Index; Layers of Protection Analysis

Salary: \$38-65/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Analytical Thinking • Chemistry Knowledge • Engineering Principles • Environmental Regulations • Health, Safety and Environment Practices • Mechanical Tools, Equipment, and Systems • Operations Analysis and Monitoring • Safety Regulations and Procedures • Understanding of Regulatory Requirements 	<ul style="list-style-type: none"> • Complete process safety reviews and develop recommendations for addressing process safety issues • Provide risk assessment through the use of risk analysis techniques and tools • Maintain and apply knowledge of current policies, regulations, and industrial processes • Conduct or coordinate worker training in areas such as safety laws and regulations, hazardous condition monitoring, and use of safety equipment • Investigate industrial accidents, injuries, or occupational diseases • Recommend process and product safety features that will reduce employees' exposure to work hazards • Compile, analyze, and interpret statistical data related to occupational illnesses and accidents • Review employee safety programs to determine their adequacy • Provide coaching to plants on identification and resolution of process safety issues

PETROCHEMICAL CAREER OPPORTUNITIES

Health, Safety & Environment: Mid-Level

Environmental Engineer

Do you have a love of the environment and a passion for protecting it? As an Environmental Engineer, you'll help your company find ways to reduce environmental hazards. Your focus could include air or water pollution control, waste management control, and hazardous material control.

As an Environmental Engineer, you'll conduct tests to find out potential environmental impacts. You'll also identify solutions to environmental problems. You'll help develop systems to monitor and track progress on solutions you create. This could include collecting and analyzing data to ensure you're making progress in the right direction.

A major responsibility for this role is upholding environmental compliance. To do so, you'll work with various local and federal agencies including the Environmental Protection Agency (EPA). You'll provide day-to-day oversight of operating units to help ensure that regulations are met. You'll also prepare regulatory reports as needed. You not only help protect the environment but you also keep those working in the plant safe.

Experience Needed: It's helpful to be familiar with topics like biology, chemistry, water and air regulations, and geology.

Required Education: Bachelor's degree in environmental or chemical engineering

Preferred Education: Master's degree in environmental engineering

Salary: \$41-67/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Analytical or Scientific Software • Analyzing Data • Check, Examine and Record • Chemistry Knowledge • Engineering Principles • Environmental Regulations • Health, Safety and Environment Practices • Prepare Documents and Reports • Safety Regulations and Procedures 	<ul style="list-style-type: none"> • Design systems, processes, or equipment for oversight of environmental concerns • Prepare environmental investigation or recommendation reports • Develop site-specific health and safety protocols • Inspect sites or programs to ensure compliance with environmental regulations • Direct installation or operation of environmental monitoring devices or supervise related data collection programs • Monitor progress of environmental improvement programs • Investigate the environmental impact of projects on air, water, or land • Provide support for projects by collecting data, providing project documentation, or training staff • Maintain operational records or records systems • Prepare and submit permit requests to regulatory bodies

PETROCHEMICAL CAREER OPPORTUNITIES

Health, Safety & Environment: Mid-Level

Emergency Preparedness and Response Manager

Do you often play out "what if" scenarios in your head? Do you want to be the person to make sure everyone is okay in the event of an emergency? You might make a great Emergency Preparedness & Response Manager.

In this role, you'll carefully plan out procedures for disasters such as a hurricane, a hazardous materials spill, or other crisis situations. In this role, you'll also be the person to make sure your plan is carried out correctly in the event of an actual emergency.

Communication skills will be key. You'll conduct training courses that teach people how to effectively respond to major emergencies and disasters. You'll coordinate disaster response or crisis management activities. This may include plans to order evacuations or open public shelters.

Your knowledge of relevant equipment, policies, procedures, and strategies to promote effective security operations. You'll see to the protection of people, data, and property. In this role, you'll develop and maintain working relationships with local law enforcement, county departments, and similar groups. This will help you plan for coordination and exchange of personnel and equipment in the event of an emergency.

Experience Needed: A background in healthcare and knowledge of healthcare hazards emergency preparedness is a plus. Experience with notification systems is also helpful. Taking FEMA courses will also give you a leg up on the competition when it comes to applying for this role.

Required Education: Bachelor's degree in health and safety or a closely related field

Salary: \$20-30/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Attention to Detail • Communication with External Entities • Coordination with Multiple Departments • Safety Regulations and Procedures • Strong Communication Skills • Systems Analysis and Evaluation • Train and Motivate Others • Understanding of Regulatory Requirements • Working Under Pressure 	<ul style="list-style-type: none"> • Coordinate disaster response or crisis management activities • Prepare plans that outline operating procedures to be used in response to disasters or emergencies • Design and administer emergency or disaster preparedness training courses • Ensure that employees know how to effectively respond to major emergencies and disasters • Keep informed of activities or changes that could affect the likelihood of an emergency

PETROCHEMICAL CAREER OPPORTUNITIES

Health, Safety & Environment: Mid-Level

Safety Supervisor

Are you comfortable in a leadership role? Do you often watch out for others and keep them out of harm's way? As a Safety Supervisor, you'll get to do this and more in an exciting environment.

As a Safety Supervisor, you'll develop and maintain standards that will ensure that the plant meets safety and environmental goals. You'll help create and improve plant safety programs.

Great teamwork and leadership skills are important as you ensure that your team follows safety rules. You'll train your team on safety and environmental protection processes and rules. As a Safety Supervisor, you'll direct and manage compliance with the company safety programs to ensure company safety goals are met. When you see unsafe practices, it will be your job to adjust how the work gets done to ensure the safety of your team and those around you.

In this role, you may also perform and document inspections and audits to find risks and unsafe behaviors. This requires the ability to think independently, communicate clearly and follow through to make sure that recommended changes are made. You'll also need to be able to operate specialized safety equipment and alarms, plus access and audit safety conditions elevated areas and crawl spaces.

This job may require shift work.

Required Education: Bachelor's degree in safety, occupational health or related field

Salary: \$30-40/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Advanced Computer Skills • Deliver Visual, Written, and Oral Instructions • Excellent Interpersonal Skills • Health, Safety and Environment Practices • Leadership • Operations Analysis and Monitoring • Safety Regulations and Procedures • Supervisory Practices • Train and Motivate Others 	<ul style="list-style-type: none"> • Teach, mentor and lead a team • Instruct workers to improve safety performance in the details of the work they perform • Provide both assistance and backup for the various assignments of safety and environmental projects • Make independent judgments about safety issues or problems • Develop and implement company programs and policies as they relate to the safety • Interpret and provide information on laws, regulations and company policies and procedures • Conduct employee training of safety, occupational health, and hazardous waste management • Complete risk management assessments

PETROCHEMICAL CAREER OPPORTUNITIES

Health, Safety & Environment: Senior-Level

Health, Safety, and Environment Manager

Are you the type of person that cares about the well-being of those around you? Do you have a passion for keeping others out of harm's way? You could be a great fit for a career as a Health, Safety, and Environment Manager.

A Health, Safety, and Environment (HSE) Manager is responsible for developing industrial hygiene and occupational health policies and best practices. Your field of expertise will be the science and art of anticipating, recognizing, evaluating, and preventing environmental factors or stresses in the workplace which may cause sickness, impaired health and well being of workers or the community.

Your goals will be to manage risks and assure compliance with regulatory rules and standards. You'll also supervise others in positions such as the Health, Safety and Environment Technicians or Specialists. Your leadership will be key in helping your staff members do their best. Another exciting part of your job may be to develop industrial hygiene and occupational health programs. These programs will be targeted at reducing health risks on the job.

You'll also work with your team and other departments to train others on industrial hygiene, wellness, and chemical hazards. You'll create and monitor communications programs to maintain and improve health and performance across the company.

Required Education: Bachelor's degree in occupational health, public health, or industrial hygiene

Preferred Education: Master's degree in occupational health, public health, or industrial hygiene

Salary: \$25-40/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Create Processes • Environmental Regulations • Health, Safety and Environment Practices • Leadership • Manage Processes and Procedures • Safety Regulations and Procedures • Strong Communication Skills • Train and Motivate Others • Understanding of Regulatory Requirements 	<ul style="list-style-type: none"> • Develop programs and procedures targeted at reducing occupational health risks • Plan, direct, and manage the company industrial hygiene program • Order suspension of activities that pose threats to workers' health or safety • Investigate accidents to identify causes and determine how such accidents might be prevented in the future • Recommend measures to help protect workers from potential hazards • Inspect or evaluate workplace environments to ensure compliance with safety standards • Develop or maintain hygiene programs, such as noise surveys, continuous atmosphere monitoring, or ventilation surveys

PETROCHEMICAL CAREER OPPORTUNITIES

Quality Assurance: Entry-Level

Quality Assurance Laboratory Technician

Did you hope for a microscope for a birthday present as a kid? Do you love details? If so, you would make a great Quality Assurance (QA) Laboratory Technician. As a QA Laboratory Technician, you'll evaluate materials and products to make sure they are at the level of quality they should be.

You'll spend your days conducting quality assurance tests using a variety of instruments and laboratory equipment. Operating and maintaining the equipment will be part of your daily routine. Safety is always important, so you'll need to make sure you follow all health and safety policies and procedures when conducting evaluations. You'll document all of your test results for every inspection and test you conduct. You'll most likely use a computer program to record your findings.

Basic mathematical and statistical formulas will come in handy when analyzing test results. Based on your findings, you'll make recommendations for adjusting process conditions to ensure that quality standards are met. Good communication skills are important to share your findings with others. It is also important when working with your team to find and correct a problem. Other duties include keeping inventory of laboratory chemicals and supplies. You'll also be responsible for keeping the laboratory area clean. This job may require shift work.

Experience Needed: Previous experience in a lab

Required Education: High School Diploma or GED

Preferred Education: Associate degree in laboratory technology, chemical technology or related field

Salary: \$20-30/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Analytical or Scientific Software • Chemistry Knowledge • Gather and Collect Data • Keeping Records • Lab Research Principles • Mathematics Knowledge • Quality Analysis • Safety Regulations and Procedures • Strong Communication Skills 	<ul style="list-style-type: none"> • Complete all tests required for each product • Document results and analyze data • Operate, maintain, and calibrate laboratory equipment • Communicate with production personnel and Quality managers • Conduct retesting of product as needed to support quality investigations • Monitor use and inventories of laboratory chemicals and supplies • Make recommendations for adjusting process conditions to ensure quality standards are met • Adhere to safety, health and environmental policies and procedures • Maintain good housekeeping to ensure laboratory and plant cleanliness

PETROCHEMICAL CAREER OPPORTUNITIES

Quality Assurance: Mid-Level

Quality Control Coordinator

Do you like to question and evaluate things and have an idea of how things should be improved? A career as a Quality Control Coordinator may be perfect for you.

In this role, you are a key part of the production process. You will review and recommend changes to products or processes to ensure high quality. It is your job to make sure that the end result meets or exceeds the desired outcomes. You'll inspect products on manufacturing line for flaws or defects. Part of your job will be to test items by analyzing size, weight, chemical composition, and components.

Critical thinking and problem solving are important talents to have in this position. It's your duty to test, measure, and evaluate products. Any problems you uncover will be investigated and you will need to offer solutions to correct them. You may also help create reports of quality control tests and analyze the data to determine if any changes in the production process are necessary.

This job offers a great way to get your foot in the door - and make some great money.

Required Education: Bachelor's degree in chemical, mechanical engineering or related field

Salary: \$20-35/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Analyzing Data • Continuous Improvement • Create Solutions to Complex Problems • Critical Thinking and Decision Making • Gathering Information Through Observation • Manufacturing Processes and Systems Knowledge • Monitor Processes, Materials, and Surroundings • Monitor Specifications • Quality Control 	<ul style="list-style-type: none"> • Test items by analyzing size, weight, chemical composition, and components • Improve upon materials and parts used in production process • Ensure production process meets industry standards • Fulfill documentation and reporting requirements for the quality control program • Help develop performance improvement targets for quality, service, and efficiency • Assist with quality control audits

PETROCHEMICAL CAREER OPPORTUNITIES

Quality Assurance: Mid-Level

Quality Control Analyst

Do you have a knack for scientific analysis? Did you enjoy chemistry classes in school? This might be a great fit for you. As a Quality Control Analyst you'll be responsible for the chemical evaluation of raw materials and final products.

In this role, you'll conduct analyses of materials, environmental samples, and finished goods. Then you'll interpret test results and compare them to established criteria. As a Quality Control Analyst, you'll also perform visual inspections of finished products. Finally, you'll complete the documentation needed to support testing processes

Experience Needed: Strong knowledge in chemistry is important in this role. You need knowledge of the chemical properties of substances and of the chemical processes and transformations that they undergo. Experience with scientific testing equipment used in chemical evaluation is also needed to be successful in this role.

Required Education: Bachelor's degree in chemistry

Salary: \$20-35/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Analytical Thinking • Analyzing Data • Attention to Detail • Chemistry Knowledge • Continuous Improvement • Gather and Collect Data • Prepare Documents and Reports • Quality Control • Safety Regulations and Procedures 	<ul style="list-style-type: none"> • Perform chemical evaluation of raw materials and finished products • Record research or operational data • Evaluate quality of materials or products • Prepare operational reports • Interpret research or operational data • Calibrate scientific or technical equipment • Follow safety practices at all times

PETROCHEMICAL CAREER OPPORTUNITIES

Quality Assurance: Mid-Level

Quality Assurance Auditor

Would you like to spend your days making sure company products are high quality? As a Quality Assurance Auditor you'll be in charge of the regular review of the quality systems to find out if they are meeting the standards required. You'll ensure that company products are being made according to the highest standards.

In this role, you'll perform operational and quality audits. Conducting product and departmental audits and reviewing the data is also part of the job, as is producing reports. You'll also be responsible for auditing quality documentation. It may be your responsibility to hold or reject products due to quality issues. In this case, you'll investigate the cause and implement corrective actions.

You may also perform operation procedures on fuel tanks, check fuel level probes, and clock gauges with alarms. Once everything checks out, you'll create Certificates of Compliance for those tanks.

Required Education: Bachelor's degree in engineering or related field

Preferred Education: [Certification from the American Society for Quality](#)

Salary: \$25-40/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Analyzing Data • Attention to Detail • Check, Examine and Record • Continuous Improvement • Gather and Collect Data • Keeping Records • Monitor Specifications • Quality Analysis • Quality Control 	<ul style="list-style-type: none"> • Check calibration of equipment • Test operation of all tank appliances • Track and document all inspections • Possess the ability to investigate quality issues, establish root cause, and implement corrections • Work well in a collaborative team environment • Maintain company auditing schedule

PETROCHEMICAL CAREER OPPORTUNITIES

Quality Assurance: Mid-Level

Quality Engineer

Are you focused on details and great with numbers? Do you work until the job is done? Become a Quality Engineer and you'll spend your days crafting tests that check every inch of a product or machine. You'll be involved with the manufacturing process from the first stage to the last, always making sure the product is at its highest quality.

You'll work in the lab, your office, and the production floor to design tests. Your job will be to conduct tests on everything from the raw materials that will make a product to the finished item just before it leaves the plant. Your goal will be to find defects and determine the cause of the defect. Next, you'll help to develop a solution to the problem.

As a Quality Engineer, you'll also help identify areas where the process could be improved to make a higher quality product. Teamwork and communication is a must when working with multiple departments to implement a change. It is important to follow all the applicable safety codes and laws.

Required Education: Quality Engineers need at least a [Bachelor's degree in engineering](#). Courses in mathematics, engineering processes, computer-aided design (CAD) software, and technical drawings will be required

Preferred Education: Master's degree or industry certifications

Salary: \$35-50/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Attention to Detail • Continuous Improvement • Create Solutions to Complex Problems • Engineering Principles • Mathematics Knowledge • Monitor Processes, Materials, and Surroundings • Quality Analysis • Quality Control • Safety Regulations and Procedures • Strong Communication Skills 	<ul style="list-style-type: none"> • Monitor products to make sure they meet specified standards • Analyze and correct product quality issues • Develop production processes • Create new standards for products • Establish product documentation protocol • Report on production results and processes • Follow safety, health, and environmental procedures

PETROCHEMICAL CAREER OPPORTUNITIES

Quality Assurance: Senior-Level

Laboratory Supervisor

Do people naturally follow your lead? Do you love science and scientific experiments? As a Laboratory Supervisor, your leadership and love of science will play an important role in your success.

Your work in the lab to provide oversight to ensure accurate tests and meet quality goals. You'll serve as a technical resource for problem solving and process improvement. Your role as a Laboratory Supervisor means you'll work to ensure compliance with regulatory requirements by maintaining documentation, conducting audits, and taking corrective actions. A big part of meeting compliance standards is to fully understand and follow all safety rules.

Your people skills will need to be top notch to be a great Laboratory Supervisor. You'll be responsible for staffing as you interview, hire, and train new employees. It's also important to help your staff grow and advance in their careers. In this role, you'll also complete the scheduling, planning, and staffing in the lab.

Required Education: Bachelor's degree in chemistry, engineering or related scientific field

Salary: \$28-45/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Create Solutions to Complex Problems • Keeping Records • Lab Research Principles • Leadership • Manage Personnel Resources • Safety Regulations and Procedures • Supervisory Practices • Train and Motivate Others • Understanding of Regulatory Requirements 	<ul style="list-style-type: none"> • Manage diverse personalities of lab personnel through proper training • Responsible for procedure review and training with all lab personnel • Complete monitoring, record keeping, and reporting for all product quality testing • See that all testing is performed within compliance procedures • Maintain certification and maintenance of all lab equipment • Assist in developing and updating laboratory procedures • Ensure that all laboratory procedures are followed

PETROCHEMICAL CAREER OPPORTUNITIES

Quality Assurance: Senior-Level

Quality Control Systems Manager

Do you enjoy being a leader? Are you good at creating and evaluating processes and procedures? As a Quality Control Systems Manager, you'll spend your days managing quality control activities in the lab or in manufacturing.

You'll be responsible for planning and overseeing quality assurance programs. You'll direct the daily operations of quality control and assurance activities. This includes quality systems and audits, continuous improvement programs, and operational safety requirements. You may also improve the quality of lab production efforts or collect and analyze samples to evaluate quality.

Teamwork is important in this role. You'll work with the [Quality Control Analysts](#) to ensure products are tested and released on time. It's also important to ensure that lab workers and quality control members are trained. You'll need to interpret information and use your judgment to determine whether events or processes comply with laws, regulations, or standards.

Required Education: Bachelor's degree in science or related field

Salary: \$40-55/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Analytical Thinking • Analyzing Data • Continuous Improvement • Critical Thinking and Decision Making • Manage Multiple Tasks and Timelines • Manage Processes and Procedures • Project Management • Quality Control • Safety Regulations and Procedures • Team Player 	<ul style="list-style-type: none"> • Monitor performance of quality control systems to ensure effectiveness and efficiency • Collect and analyze production samples to evaluate quality • Report weekly and daily metrics to supervisors • Ensure that laboratory personnel and quality control members are adequately trained • Analyze quality control test results • Stop production if serious product defects are present • Communicate quality control information to relevant parties

PETROCHEMICAL CAREER OPPORTUNITIES

Logistics and Supply Chain: Entry-Level

Packager

Do you like being on the move? Want to find a job in a busy, team-oriented environment? If so, then consider becoming a Packager. You'll work in the warehouse of a Petrochemical company, moving materials and keeping track of inventory. You'll be active all day and spend your time surrounded by other people.

An eye for detail will be important as you sort, count, and record items as you package them. If there is a defective item, you'll need to spot it and know how to take care of the issue. A good head for numbers will definitely be a plus in this position. Depending on the company, you might need to operate heavy equipment, so safety procedures need to be on your mind at all times.

This job is a great way to get started in the Petrochemical world.

Experience Needed: Look for internship or apprenticeship programs that offer hands-on experience in order to impress potential employers.

Required Education: High school diploma or GED

Salary: \$10-15/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Calculate Dimension/Tolerance • Comprehend and Follow Oral Instructions • Electronic Inventory Control Systems Understanding • Keeping Records • Mathematics Knowledge • Safety Regulations and Procedures • Shipping Routes and Methods • Strong Organizational Skills • Team Player 	<ul style="list-style-type: none"> • Load materials and products into package processing equipment • Clean containers, materials, supplies, or work areas, using cleaning solutions and hand tools • Record product, packaging, and order information on specified forms and records • Examine and inspect containers, materials, and products to ensure that packing specifications are met • Measure, weigh, and count products and materials

PETROCHEMICAL CAREER OPPORTUNITIES

Logistics and Supply Chain: Entry-Level

Shipping and Receiving Clerk

Are you organized and detailed? Do you like when things are in order and working smoothly? If so, a job as a Shipping and Receiving Clerk might be just right for you. You'll work in the warehouse and be in charge of tracking and organizing the shipments of raw materials that arrive and the finished products that leave. It will require a calm attitude and physical strength.

As a Shipping and Receiving Clerk, one of your main duties will be keeping records of all the shipments that come in and go out, making sure that each one contains the correct items and are headed to the right destination. You might need to communicate with the shipping company, the customer, or the supplier if an issue comes up.

Depending on the company, you may be asked to pack and unpack parcels yourself. This will require heavy lifting ability and endurance. You'll double check to make sure all items are safely and properly fit into their shipping containers before departure. This job offers a terrific way to get into a company and build a career.

Required Education: High school diploma or GED

Preferred Education: Associate degree in logistics or related field

Salary: \$10-22/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Attention to Detail • Calculate Dimension/Tolerance • Check, Examine and Record • Communication with External Entities • Electronic Inventory Control Systems Understanding • Keeping Records • Manage Multiple Tasks and Timelines • Shipping Routes and Methods • Strong Organizational Skills 	<ul style="list-style-type: none"> • Examine shipment contents and compare with records to check accuracy • Record shipment data, such as weight, charges, space availability, damages, or discrepancies • Prepare documents to route materials • Determine shipping methods, routes, or rates for materials to be shipped • Contact carrier representatives to make arrangements for shipping and delivery of materials • Deliver materials to departments using hand truck, conveyor, or sorting bins • Store shipping materials and supplies to maintain inventory of stock

PETROCHEMICAL CAREER OPPORTUNITIES

Logistics and Supply Chain: Mid-Level

Purchasing Supervisor

Are your leadership and negotiating skills sharp? Do you enjoy working hard to get a great deal? If so, then a position as a Purchasing Supervisor is the perfect way to put your bargaining skills to work. You'll be the leader of the procurement department, in charge of how and where your company's money is spent on raw materials and services.

A large part of your job will be finding vendors and suppliers. Negotiating will be a big part of your job, as you'll want to save as much money as possible while still maintaining high standards for the goods and services your company needs. You will also plan, schedule, and ensure supply deliveries work with project schedules.

Much of your work will be done from your office, where you'll oversee your employees and offer them advice and oversight. Strong leadership skills are important since you'll be responsible for growing the skills and expertise of those around you.

You'll read and create reports and manage the procurement budget using software programs. Most companies will expect some sort of degree in business, finance, or accounting. Programs that offer internships will give you a leg up in the job hunt.

Experience Needed: Purchasing Supervisors need previous experience in the field and many are hired from within the company.

Required Education: Bachelor's degree

Preferred Education: Bachelor's degree in Business or Management. Industry Certifications in Supply Chain.

Salary: \$30-52/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Advanced Computer Skills • Business Fundamentals • Communication with External Entities • Create and Modify Budgets • Leadership • Negotiation • Prepare Documents and Reports • Relationship Building • Supervisory Practices 	<ul style="list-style-type: none"> • Oversee procurement buyers • Provide consulting, training, and guidance to procurement buyers • Research, evaluate, and buy products • Review purchase order requests • Negotiate contracts with vendors and suppliers • Build relationships with business partners • Ensure quality of goods and services purchased • Maintain and review purchase and delivery records

PETROCHEMICAL CAREER OPPORTUNITIES

Logistics and Supply Chain: Mid-Level

Warehouse Manager

Are you a strong leader? Can you keep calm under the most chaotic of circumstances? As Warehouse Manager you'll direct the transport and storage of raw materials and finished products. You'll be familiar with every nook and cranny of your warehouse, and you'll train all your employees on safe handling practices. If there's any problem, you'll take care of it, or you'll report it to the people who can.

In this role, you'll manage all distribution of materials that support the business including rail, barges, and bulk chemical storage. You may develop and maintain marine, rail and truck lanes/routes. You may even work closely with [Procurement](#) to negotiate the respective freight rates.

The Warehouse Manager role comes with the responsibility of administrative paperwork, so you'll have your own office. You'll handle all reports, warehouse budgets, and employee schedules. You'll work with the production manager, materials manager, and logistics planners to make sure that the warehouse is efficient.

Experience Needed: Warehouse Managers are required to have previous experience and are usually promoted from within the company

Required Education: Associate degree in logistics or supply chain management

Preferred Education: Bachelor's degree in logistics or supply chain management

Salary: \$28-56/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Coordination with Multiple Departments • Create and Modify Budgets • Deliver Visual, Written, and Oral Instructions • Electronic Inventory Control Systems Understanding • Leadership • Manage Material Resources • Manage Personnel Resources • Prepare Documents and Reports • Shipping Routes and Methods • Working Under Pressure 	<ul style="list-style-type: none"> • Coordinate transport, receipt, and storage of raw materials • Record and verify shipping records • Hire, train, and oversee warehouse employees • Supervise the activities of workers engaged in receiving, storing, testing, and shipping products or materials • Prepare or direct preparation of correspondence, reports, and operations, maintenance, and safety manuals • Oversee distribution of finished products • Ensure compliance with safety standards

PETROCHEMICAL CAREER OPPORTUNITIES

Logistics and Supply Chain: Mid-Level

Procurement Buyer

Are you a skilled negotiator? Can you spot a good product when you see it? Put your skills to work for you as a Procurement Buyer. You'll spend your days looking for the best suppliers and vendors out there. Negotiating deals and contracts that benefit your company will be your top priority. This is a role where relationship-building and communication skills are very important.

As a Procurement Buyer, you'll spend your days looking for and doing business with companies that sell the raw materials and services your company needs to complete its own manufacturing processes. You'll know which materials your company needs and how they're used to make a product, which might require you to visit the plant. It's also your job to verify receipt of items and authorize payment.

In this role, you'll stick to a budget and do everything possible to save money. You'll need excellent math and computer skills. The ability to communicate clearly with everyone from customers to management to suppliers and vendors is also key. You'll keep records of all the purchases and contracts you make and report to a procurement or [purchasing manager](#).

Required Education: High school diploma or GED

Preferred Education: Associate degree in business or logistic

Salary: \$14-26/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Advanced Computer Skills • Business Fundamentals • Communication with External Entities • Create and Modify Budgets • Customer Service • Keeping Records • Mathematics Knowledge • Negotiation • Relationship Building • Strong Communication Skills 	<ul style="list-style-type: none"> • Compare prices and services to find the best deal • Negotiate prices and contracts with vendors and suppliers • Work within budget constraints • Keep purchase records • Communicate with customers, engineers, and technicians • Ensure adequate material supply at all times • Monitor contracts with vendors to ensure compliance

PETROCHEMICAL CAREER OPPORTUNITIES

Logistics and Supply Chain: Mid-Level

Logistics Specialist

Are you organized? Do you like to make plans months ahead of time? Put your skills to work as a Logistics Specialist. You'll collaborate with multiple departments in order to manage the flow of raw materials and supplies into the business and finished products off to customers.

You'll need to make sure your company has the right amount of supplies at the right times. So, you'll be in charge of creating strategies and developing plans to meet this goal. You'll work with production teams to verify production schedules to make sure supplies are ordered when needed. You'll also work closely with the loading and warehouse teams to ensure shipments from suppliers are on time and for the correct amount.

Another key part of your job is making sure products reach your customers on time and in the correct amounts ordered. If you enjoy keeping things on track and working with a variety of people, you will excel in this role. Most work is carried out in an office but you'll also need to visit the production floor and warehouse at times. Companies use computer software programs to aid in forecasting and tracking so you'll need good computer skills.

Experience Needed: Experience in warehouse operations will increase your appeal as a prospect.

Required Education: High school diploma or GED. Most companies look for a candidate with at least some education in business, management or logistics.

Preferred Education: Associate degree in logistics, supply chain management or business Industry certifications

Salary: \$26-58/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Business Fundamentals • Computer Skills • Coordination with Multiple Departments • Electronic Inventory Control Systems Understanding • Forecasting • Manage Multiple Tasks and Timelines • Manage Processes and Procedures • Prepare Documents and Reports • Shipping Routes and Methods • Strong Organizational Skills 	<ul style="list-style-type: none"> • Plan, direct, or coordinate the transportation, storage, or distribution of goods and services • Develop forecasting plans to maintain enough inventory • Verify goods reach their destination in a timely manner • Establish priorities, track assignments, and ensure availability of resources • Maintain schedules and deadlines • Comply with plant standards and shipping regulations • Work with loading and warehouse personnel to ensure shipments and cost targets are met • Work with production personnel to verify materials needed to match production schedule

PETROCHEMICAL CAREER OPPORTUNITIES

Logistics and Supply Chain: Senior-Level

Supply Chain Manager

Have you always been a "big picture person" but also understood the importance of details? Being a Supply Chain Manager is a bit like solving a puzzle. You'll need to make sure each and every piece fits just right to make the whole picture come together.

You will be responsible for identifying and acquiring the supplies needed for manufacturing products. This can include negotiating contracts and building relationships with vendors. You'll work with other departments to understand the best timing and flow of materials into the company to benefit production schedules. A solid understanding of supply and demand is critical for this role. You will help decide how much is produced and when based on client demand. You'll also make sure finished products are shipped to the right client at the right time in the right amount.

Another important aspect of your job is to find more efficient way to ship products. This can include knowing when to order supplies and how much is needed to ensure the right amount materials. It also means keeping an eye on production schedules to make sure finished goods aren't sitting around too long in the warehouse before being shipped out to customers.

Experience Needed: Most employees work their way up into this position by gaining experience in areas of the company such as [warehouse operations or logistics](#).

Required Education: Bachelor's degree in business or management

Salary: \$40-65/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Communication with External Entities • Continuous Improvement • Coordination with Multiple Departments • Forecasting • Leadership • Manage Multiple Tasks and Timelines • Negotiation • Process Management • Strong Organizational Skills • Supply Chain Logistics 	<ul style="list-style-type: none"> • Forecast demand or create supply plans that ensure availability of materials or products • Negotiate prices and terms with suppliers and vendors • Ensure that the company makes enough of its product to meet customer demand • Direct the movement, storage, or processing of inventory • Analyze inventories to determine how to increase inventory turns, reduce waste • Verify final products are delivered to customers in correct quantities and at the right time • Implement new or improved supply chain processes • Select transportation routes to maximize efficiency

PETROCHEMICAL CAREER OPPORTUNITIES

Engineering: Mid-Level

Project Engineer

Are you the type who can juggle many balls at the same time? Can you manage a budget, work on a timeline, and deliver a successful and completed project at the end? A Project Engineer requires great leadership skills, money management, and an engineering degree to top it all off. You'll need lots of energy, patience, organization, and negotiation skills in order to complete each project. There is never a dull moment as a Project Engineer. It's a job that will work every part of your brain.

Project Engineers typically lead engineering teams in improving plant operations, but your role could also include the new construction of a plant. No matter the project, you're part of the process the entire way. You'll oversee all phases of the project. You'll define project scopes, cost estimates and schedules. Making sure the project plan costs and schedules meet the project objectives is your goal.

If any of the work for the project is outsourced, you will be the interface with outside contractors and will prepare bid packages, evaluate bid proposals, and select contractors to assist in plant projects. You will manage activities with the construction contractors and interact with outside engineering firms as needed.

Required Education: Bachelor's degree in engineering. Some areas to consider are electrical engineering, mechanical engineering, and industrial engineering.

Preferred Education: Master's degree in Engineering

Salary: \$30-60/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Collaboration • Communication with External Entities • Create and Modify Budgets • Create and Stick to Timelines • Engineering Principles • Leadership • Prepare Documents and Reports • Project Management • Understanding of Regulatory Requirements 	<ul style="list-style-type: none"> • Drive project execution and coach team members as necessary • Provide overall planning and organization during the design and construction • Develop staffing plans • Coordinate all design engineering, procurement, and construction activities • Analyze project risks, make recommendations to avoid risks • Initiate, monitor, and update the project schedule • Monitor project cost and manage change to established scope and baselines

PETROCHEMICAL CAREER OPPORTUNITIES

Engineering: Mid-Level

Production Engineer

Ever caught yourself saying, "There has to be a better way!" and coming up with ideas on how to do just that? As a Production Engineer, you will plan and establish the sequence of manufacturing operations to make them more efficient. You'll evaluate everything from how the plant is laid out, to the cost and flow of materials used, to the ideal staffing plan.

Your observation skills will be put to work as you monitor and evaluate operations and troubleshoot plant problems. Careful analysis will help you design the best layout of equipment, materials, and work space. You'll use drafting tools and computer programs in your work. You'll also inform decisions related to worker functions and responsibilities.

Monitoring the equipment is also an important part of your job. You'll be on the lookout for machine downtime that interrupts operations, and you'll find ways to help minimize this downtime. You'll also make recommendations on upgrades or changes to improve production efficiency.

Working with plant personnel, you'll communicate recommendations and help to implement those changes, so good communication skills will come in handy. Part of your role will also be to document changes and ensure that changes meet quality guidelines.

Required Education: Bachelor's degree in engineering

Preferred Education: Bachelor's degree in Chemical Engineering

Salary: \$35-65/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Analytical Thinking • Analyzing Data • Collaboration • Continuous Improvement • Create Processes • Idea Generation • Manufacturing Processes and Systems Knowledge • Monitor Processes, Materials, and Surroundings • Operational Sequences • Troubleshooting 	<ul style="list-style-type: none"> • Review production schedules and engineering specifications to understand manufacturing methods, procedures, and activities • Estimate production costs, cost saving methods, and the effects of product design changes on costs • Draft and design layout of equipment and work space for maximum efficiency • Use drafting tools and computer software to conduct analysis and make recommendations • Study operations sequence and organization charts to determine worker functions and responsibilities • Oversee the planning and implementation of minor plant system changes • Provide engineering support to maintain and ensure continuous operations in the plant

PETROCHEMICAL CAREER OPPORTUNITIES

Engineering: Mid-Level

Process Engineer

Do you like making improvements to things? Are you a creative thinker that likes to come up with new ideas? You could be a great Process Engineer.

Your job will have many interesting duties. A Process Engineer looks at plant operations to identify places to improve profitability and make processes better. Teamwork is important as you partner with plant employees to find technology gaps and improvement opportunities. You may focus in on a specific part of a process to analyze chemical interactions or equipment design to find ways to improve.

Once a problem is identified, you'll brainstorm ideas and work with a team to develop a solution. You will use process simulation models to help troubleshoot and evaluate process designs. It's important to make sure any changes meet the company's environmental, health, and safety rules.

You'll oversee the project schedule and budget. You'll also monitor results to confirm the solution has a positive impact on operations. You'll also need to document your work and prepare diagrams, charts, and tables to share with other teams. This job may require shift work.

Experience Needed: Knowledge of production or manufacturing operations is helpful. Most companies will want previous experience, and many will look for additional training courses that offer hands-on work.

Required Education: Bachelor's degree, preferably in chemical or industrial engineering

Preferred Education: Six Sigma Green Belt or Black Belt Certification. Project Management Experience

Salary: \$30-60/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Analytical Thinking • Collaboration • Continuous Improvement • Coordination with Multiple Departments • Create Processes • Create Solutions to Complex Problems • Engineering Principles • Idea Generation • Manufacturing Processes and Systems Knowledge • Troubleshooting 	<ul style="list-style-type: none"> • Observe plant operations to identify areas of improvement • Create process design studies • Assist plant leaders in identifying key measures using plant performance data analysis • Utilize simulation models to troubleshoot issues and evaluate proposed solutions • Ensure project scope for improvement projects is well defined and cost effective • Provide input to project schedule and plans • Ensure that the process design meets company safety rules and compliance regulations • Drive timely project execution • Monitor progress to verify solution functions as intended

PETROCHEMICAL CAREER OPPORTUNITIES

Engineering: Mid-Level

Electrical Engineer

Are you fascinated by the inner workings of electrical systems? Want to design your own someday? As an Electrical Engineer, you'll be a key player in making sure the electrical systems and equipment in the plant are running smoothly and safely.

An Electrical Engineer is responsible for the design and maintenance of electrical systems for the chemical plant processes. This role works to assure reliability in keeping everything up and running. This includes troubleshooting when problems arise, or planning preventative maintenance programs to help eliminate issues from occurring. You'll recommend solutions to problems and oversee the completion of repairs. You'll jump in and provide technical assistance when necessary. It will be up to you to make sure that electrical systems and controls meet accepted industry standards and codes.

Electrical Engineers are also called upon to help justify, plan, and execute large projects. These might include the installation of new and upgraded electrical and control systems in a plant. Keeping up-to-date with electrical technology and design changes will help you know how and where to make improvements to the system. A keen attention to detail, as well as the ability to see 'the big picture' will also help you in this role.

Experience Needed: [Previous experience](#), or even a Master's degree, will give your resume a boost and make you a knowledgeable, resourceful engineer.

Required Education: Bachelor's degree in electrical engineering or electrical engineering technology

Preferred Education: Master's degree, Journeyman or Master Electrician Certification

Salary: \$32-62/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Attention to Detail • Comprehend Technical Drawings and Other Visual Instructions • Electrical Systems Knowledge • Engineering Principles • Maintain Equipment • Manufacturing Processes and Systems Knowledge • Project Management • Systems Analysis and Evaluation • Troubleshooting 	<ul style="list-style-type: none"> • Troubleshoot electrical equipment failures and recommend solutions to avoid recurring issues • Track repair and maintenance issues with plant electrical systems to ensure completion • Evaluate current preventative/predictive maintenance program to identify areas of improvement • Review electrical system inspection and maintenance reports • Develop and implement improvements in electrical maintenance program to improve electrical system reliability • Review and document electrical system coordination studies • Ensure electrical designs are in compliance with the National Electric Code • Participate actively in safety programs and promote safety rule

PETROCHEMICAL CAREER OPPORTUNITIES

Engineering: Mid-Level

Civil Engineer

Did you love to build buildings with Legos as a kid? Is the science behind how buildings are planned and built interesting to you? This rewarding career will allow you to see your designs turn from thoughts and concepts into reality.

Civil Engineers focus on the construction of buildings. You'll perform a variety of work in the initial planning and design phases of projects. You will get to use creativity to perform studies and technical activities. Your goals will be to arrive at the most cost effective, reliable technical solution. You may also provide support to construction phases of projects with engineering knowledge and experience.

Civil Engineers who specialize in construction will often work as project managers. They are responsible for the time management of the project, keeping the project on track. You may also consult with other engineers involved in the project such as architectural and mechanical engineers.

Other Civil Engineers work primarily on structural projects. In order to prepare a safe design, Civil Engineers consider many factors. These include the construction materials, the expected loads that will be placed upon the completed structure and special issues such as seismic or wind considerations.

Required Education: Bachelor's degree in civil or structural engineering or construction management. A program accredited by ABET is needed in order to get a license to become a Professional Engineer (PE).

Preferred Education: Master's degree in civil or structural engineering or construction management. Many Civil Engineers continue their education with a Master's degree while working to become a PE, which can result in more career options and improvements in salary.

Salary: \$38-72/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Collaboration • Construction Knowledge • Create Solutions to Complex Problems • Engineering Principles • Manage Multiple Tasks and Timelines • Mathematics Knowledge • Physics Knowledge • Project Management • Read Technical Drawings and Blueprints • Use Design Software 	<ul style="list-style-type: none"> • Analyze survey reports, maps, and other data to plan projects • Estimate quantities and cost of materials, equipment, or labor to determine project workability • Compute load and grade requirements, water flow rates, or material stress factors to determine design specifications • Utilize structural engineering principles • Prepare calculations and associated engineering sketches for foundations, steel and concrete structures, and site preparations • Test characteristics of materials or structures • Inspect project sites to monitor progress and ensure compliance design specifications and safety standards • Prepare proposal documents and engineering reports

PETROCHEMICAL CAREER OPPORTUNITIES

Engineering: Mid-Level

Chemical Engineer

Did you spend your childhood making things explode? Were science fairs your favorite school activity? As a Chemical Engineer, you'll spend your days mixing chemicals and designing various gaseous, liquid, and solid products. You may also design the manufacturing processes they go through. Most of the time you'll work in a team with other engineers, creating new products or improving existing ones. You'll use computer software, mathematical formulas, and chemical engineering principles on a daily basis.

As a Chemical Engineer, you'll focus on creating products that are safe and easy to use. You might design the best processes for mixing, heating, or separating chemicals to create new substances. Your position could focus more on testing and verifying the safety and function of the gases and liquids you create. You'll be required to have a deep understanding of safety codes and regulations, both for the manufacturing process and for the products created.

Engineers act as leaders on projects, so you'll need to be able to give instructions in various forms, like technical drawings and formulas, to team members. You'll likely work with technicians and machine operators. You may oversee some work at the plant, making sure that your employees adhere to safety procedures and that the product meets quality standards at every stage of production.

If you've got a good head for numbers and love chemistry, this job is perfect for you.

Experience Needed: Most employers will prefer a Master's degree or some years of experience.

Required Education: Bachelor's degree in chemical engineering

Preferred Education: Master's degree

Salary: \$38-70/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Advanced Computer Skills • Chemistry Knowledge • Comprehend Technical Drawings and Other Visual Instructions • Create Solutions to Complex Problems • Engineering Principles • Mathematics Knowledge • Project Management • Quality Analysis • Safety Regulations and Procedures 	<ul style="list-style-type: none"> • Develop safety procedures for workers operating equipment or working with chemicals • Troubleshoot problems with chemical manufacturing processes • Evaluate chemical equipment and processes to identify ways to optimize performance • Ensure compliance with safety and environmental regulations • Conduct research to develop new and improved chemical manufacturing processes • Prepare estimate of production costs and production progress reports for management • Design measurement and control systems based on data collected in laboratory experiments • Perform laboratory studies of steps in manufacture of new products

PETROCHEMICAL CAREER OPPORTUNITIES

Research and Development: Entry-Level

Research and Development Laboratory Technician

Did you enjoy lab experiments in science classes? Does the idea of creating something new appeal to you? As a Research and Development (R&D) Laboratory Technician, you'll be an important part of cutting-edge research. You'll help your company create new materials or products.

A large part of your job as a R&D Lab Technician will consist of conducting a wide variety of tests. You'll likely be responsible for making sure the sample, equipment, and any required chemicals are handled correctly. Proper handling is important not only for avoiding contamination of the sample, but also for safety in the lab. Your data analysis skills will be put to good use as you document detailed test results to help keep record of all new advances. Many times this requires entering data into a database or other software program. You'll also need to recognize when test results are not meeting expectations and notify your supervisor.

A R&D Lab Technician typically has the job of keeping the lab clean and organized as well. You may help organize equipment and set up the lab, and sanitize the surfaces and the equipment, both before and after it is used.

Experience Needed: A high school diploma with some experience in a lab is the baseline for starting your career.

Required Education: High school diploma or GED

Preferred Education: Associate degree in chemistry technology, applied science, or related field

Salary: \$15-20/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Advanced Computer Skills • Analytical or Scientific Software • Analyzing Data • Check, Examine and Record • Chemistry Knowledge • Gathering Information Through Observation • Lab Research Principles • Safety Regulations and Procedures • Understanding of Regulatory Requirements 	<ul style="list-style-type: none"> • Test products, compounds, or batches for contaminants • Maintain, operate, and calibrate laboratory equipment • Compile and analyze data from test results • Comply with all safety, environmental and health regulations and procedures • Follow standardized formulas or experimental procedures • Responsible for the upkeep and routine maintenance and repairs of all lab equipment • Perform research and data gathering, charting, analysis, and recording • Purchase, inventory, store, transfer, recycle and dispose of waste chemicals

PETROCHEMICAL CAREER OPPORTUNITIES

Research and Development: Entry-Level

Research Technician

Did you enjoy playing with a chemistry set as a kid? Are you curious about scientific experiments and how chemicals react to each other? As a Research Technician, you'll get to test and analyze the results of various laboratory experiments.

You'll need to be skilled in math and science to be successful in this role. You may carry out sampling, testing, measuring, recording and analyzing of results. Your work will assist in the development of cutting-edge scientific discoveries. You'll play an important role in scientific analysis and investigation as part of a team.

Because you'll also work with various types of equipment, it may be helpful to be mechanically inclined. Research Technicians work closely with numbers and data, so the ability to pay strict attention to detail is also beneficial skills. Technicians provide all the required technical support to enable the lab to function well, while following procedures and health and safety guidelines.

Required Education: High school diploma or GED

Preferred Education: Associate degree in laboratory technology or applied science or related field

Salary: \$15-23/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Advanced Computer Skills • Analyzing Data • Attention to Detail • Check, Examine and Record • Chemistry Knowledge • Gathering Information Through Observation • Lab Research Principles • Mathematics Knowledge • Safety Regulations and Procedures 	<ul style="list-style-type: none"> • Prepare specimens and samples • Maintain and operate standard laboratory equipment • Ensure that the laboratory is well-stocked • Record and sometimes interpret results to present to senior colleagues • Use computers and perform mathematical calculations for the preparation of graphs • Follow strict safety procedures and safety checks • Work in a team-oriented environment

PETROCHEMICAL CAREER OPPORTUNITIES

Research and Development: Mid-Level

Research and Development Engineer

Was science your favorite subject in school? Did you enjoy science labs and conducting experiments? A career as a Research and Development (R&D) Engineer could be a great fit for you.

As an R&D Engineer, you'll research, develop and evaluate new engineering processes and products. You will usually be assigned a project with specific goals outlined or a particular problem to solve. You'll use your creativity and critical thinking skills to develop the project. The role involves in-depth analysis of issues, process, and procedures. You will use engineering and scientific principles. This role requires a love for chemistry and knowledge of research and experimental protocols.

Good communication skills and teamwork are important in this role. You may train and direct others as part of managing the entire research effort. Good judgment, a sound understanding of the scientific process, and engineering principles are required to be successful in the position. General computer skills like using spreadsheet and word processing software are needed to produce reports and findings of your research.

Required Education: Bachelor's degree in chemistry, engineering, or related field

Preferred Education: Master's degree in chemistry, engineering, or related field

Salary: \$35-50/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Analyzing Data • Attention to Detail • Chemistry Knowledge • Collaboration • Create Solutions to Complex Problems • Engineering Principles • Idea Generation • Lab Research Principles • Prepare Documents and Reports • Train and Motivate Others 	<ul style="list-style-type: none"> • Plan and implement laboratory operations for the purpose of developing material and fabrication procedures • Review new product plans and make recommendations for material selection • Supervise the work of lab technicians, technologists, and other engineers and scientists • Analyze product failure data and laboratory test results to determine causes of problems and develop solutions • Conduct or supervise tests on raw materials or finished products to ensure their quality • Create reports on research findings

PETROCHEMICAL CAREER OPPORTUNITIES

Research and Development: Senior-Level

Technical Service Manager, Research and Development

Do you like making sure everything around you is in good working order? As a Technical Service Manager, you'll do just that in the research and development (R&D) part of your company. In this role you'll be responsible for the maintenance and operations of R&D programs in the company.

You'll also oversee technical maintenance for R&D equipment to ensure that it's in proper working order. In your role, you'll ensure that all technical work is carried out according to code and building standards. You'll also make sure certificates of insurance are correct and in place and that all work is in compliance with policies. In addition, your duties will include reviewing all plans for adding or upgrading new R&D equipment.

Your people skills will need to be top notch as you interact and coordinate with engineers, researchers, and lab technicians. As a Technical Service Manager, you'll provide leadership and management support to [R&D Lab Technicians](#).

Required Education: Bachelor's degree in Mechanical Engineering or Research and Development

Salary: \$40-60/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Chemistry Knowledge • Collaboration • Create Processes • Deliver Visual, Written, and Oral Instructions • Equipment Selection • Lab Research Principles • Leadership • Monitor Processes, Materials, and Surroundings • Safety Regulations and Procedures • Supervisory Practices 	<ul style="list-style-type: none"> • Ensure that all critical and major technical work is carried out • Provide technical oversight for the design and implementation of the preventative maintenance program • Report abnormal or critical conditions or equipment immediately • Review all plans for adding or upgrading new equipment • Develop contingency plans in the event of equipment failure • Supervise system or equipment overhauls or retrofits

PETROCHEMICAL CAREER OPPORTUNITIES

Research and Development: Senior-Level

Research Chemist

Was chemistry your favorite subject in school? Do you love chemistry enough to get an advanced degree to learn all the ins and outs of chemical research? A career as a Research Chemist might be right for you. As a Research Chemist, you'll conduct chemical analyses or experiments in petrochemical labs. Your objective will be quality control or to develop new products or knowledge of petrochemicals.

You'll need at least a Bachelor's degree in chemistry and many employers will want a Master's or even a PhD. To be successful in this role, you'll need knowledge of the chemical composition, structure, and properties of substances and of the chemical processes and transformations that they undergo. You'll compile the relevant information into reports and research findings.

A strong commitment to safety is very important as a Research Chemist. You'll need to wear common protective or safety equipment. To get this job, you'll need demonstrated research experience, exceptional drive and the ability to communicate well in presentations and written documents.

Experience Needed: Demonstrated research experience

Required Education: Bachelor's degree in Chemistry

Preferred Education: Master's degree or PhD in chemistry, organic chemistry, or related field

Salary: \$25-40/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Analytical or Scientific Software • Analyzing Data • Chemistry Knowledge • Gather and Collect Data • Gathering Information Through Observation • Lab Research Principles • Prepare Documents and Reports • Safety Regulations and Procedures • Understanding of Regulatory Requirements 	<ul style="list-style-type: none"> • Ability to develop and lead independent research projects • Conduct studies to understand the chemistry mechanism of complex systems • Identify and develop new chemistries for molecules of interest • Collect, analyze, and interpret data from lab, plant, and commercial operations • Originate new and unique concepts that can be patented • Document results, prepare reports, and present work products • Work in a team environment, exhibit strong skills in scientific collaboration and cooperation • Engage in cross-functional problem-solving activities

PETROCHEMICAL CAREER OPPORTUNITIES

Industrial Construction: Entry-Level

Sheet Metal Worker

Do you like working with your hands? Do you enjoy the satisfaction of a job well done? A career as a Sheet Metal Worker might be a great fit for you.

In this craft, you'll create and put together sheet metal products. You might work on ducts, control boxes, drainpipes, and furnace casings. As a Sheet Metal Worker, you may also work with machines that cut, bend, or straighten sheet metal. In this role you may operate soldering or welding equipment to join sheet metal parts.

Following safety rules is an important part of this craft. It'll be your responsibility to stop work if you have safety concerns and make those known to supervisors. Keep reading to learn more about this interesting job.

Want to learn more about becoming a Sheet Metal Worker? Visit SteelToePro.com to learn more about the job. You can also read Construction articles and learn more about this exciting industry.

Required Education: High school diploma or GED

Salary: \$16-29/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Calculate Dimension/Tolerance • Comprehend Technical Drawings and Other Visual Instructions • Conform to Specifications • Construction Knowledge • Equipment Selection • Machine Monitoring and Control • Mechanical Tools, Equipment, and Systems • Operate Machines • Read Technical Drawings and Blueprints • Safety Regulations and Procedures 	<ul style="list-style-type: none"> • Understand blueprints, drawings, or written or verbal instructions • Convert blueprints into shop drawings to be followed in the construction or assembly of sheet metal products • Determine project requirements such as assembly sequences or required methods and materials • Layout, measure, and mark dimensions and reference lines on material such as roofing panels or other sheet metal materials • Fasten seams or joints together various tools to assemble components into products or to repair sheet metal items. • Trim, file, grind, buff, or smooth surfaces or seems of assembled parts • Understand and follow all safety rules

PETROCHEMICAL CAREER OPPORTUNITIES

Industrial Construction: Entry-Level

Scaffold Builder

Did you like playing with Lincoln Logs as a kid? Do you enjoy getting an aerial view? If so, you might be a great Scaffold Builder.

In this craft, you'll be responsible for building and breaking down scaffolding for buildings. Scaffolding is a series of metal tubes, joints and wooden planks that provide workers stability in high up places. You'll study the blueprints and construction plans and build scaffolding according to project needs. After the scaffold is built and the construction work is complete, you'll also break down the scaffolding quickly and safely.

This job requires attention to detail and a strong regard for safety rules to keep you and your team safe. Classes in scaffold construction will help you get into this exciting craft.

Want to learn more about becoming a Scaffold Builder? Visit SteelToePro.com to learn more about the job. You can also read construction articles and learn more about this exciting industry.

Required Education: High school diploma or GED

Salary: \$12-23/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Calculate Dimension/Tolerance • Conform to Specifications • Construction Knowledge • Equipment Selection • Inspect Equipment • Install and Dismantle Equipment • Mechanical Tools, Equipment, and Systems 	<ul style="list-style-type: none"> • Demonstrate skills in safe building and disassembly of scaffolding • Inspect and select safe materials for use in building a scaffold • Identify, recognize and demonstrate safe use of power tools and hand tools needed for the job • Use knowledge of piping systems and demonstrate a working knowledge of appropriate material handling techniques • Read and apply information from work orders, job orders, specifications, blueprints and other drawings • Recognize basic blueprint terms and symbols for job application • Select and safely use appropriate equipment which may include (but not limited to) manlifts, forklifts, and company trucks

PETROCHEMICAL CAREER OPPORTUNITIES

Industrial Construction: Entry-Level

Construction Laborer

Do you like to be on the go? Do you enjoy being at the heart of the action? As a Construction Laborer, you'll be busy helping in all aspects of a construction build.

In this role, you'll help other craft workers in a team environment. Your work will be different every day and you'll be moving around to perform different tasks so there's no chance of boredom. You might find yourself helping load or unload materials, use survey and measuring equipment, help build scaffolding, or conduct site cleanup.

You may need to travel with this job. Sometimes you'll be at a location across the city, others you'll be out of town. Companies will cover your costs if travel is required.

This is a great entry-level role in Construction. You'll get an idea of all the work that needs to be done for a Construction project. You can use your knowledge to decide how you want to grow in the industry.

Want to know more about what it's like to be a Construction Laborer? Visit SteelToePro for more information on this great job and other Construction Crafts.

This job may require shift work.

Required Education: High school diploma or GED

Salary: \$11-15/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Adaptability • Comprehend and Follow Oral Instructions • Construction Knowledge • Equipment Selection • Mechanical Tools, Equipment, and Systems • Safety Regulations and Procedures • Team Player 	<ul style="list-style-type: none"> • Load or unload building materials, machinery, or tools, distributing them to the appropriate locations • Clean or prepare construction sites to eliminate possible hazards • Signal equipment operators to correctly place machinery, equipment, or material • Measure, mark, or record openings or distances to layout areas where construction work will be performed • Dig ditches or trenches, backfill excavations, or compact and level earth to grade specifications, using picks, shovels, pneumatic tampers, or rakes • Mix, pour, or spread concrete, using portable cement mixers • Tend pumps, compressors, or generators to provide power for tools or machinery • Control traffic passing near, in, or around work zones

PETROCHEMICAL CAREER OPPORTUNITIES

Industrial Construction: Entry-Level

Pipefitter

Did you love to play with Legos and build things as a kid? Was it fun to see how you could fit different parts together to create something bigger? If you answered, 'yes', a career as a Pipefitter could be a great fit for you.

This is a great way to enter the industry. Pipefitters typically layout, assemble, install, and repair pipelines or pipe systems that carry water, steam, air or other liquids or gases for industrial production and process systems. As a Pipefitter, you'll apply your pipe system knowledge and blueprint reading capability to select pipe size and type. You'll also select other related equipment and materials such as pipe supports, hangars, and support systems according to required specifications. You will study building plans and working drawings to better understand how the whole system fits together.

Pipefitters plan the sequence of installation to avoid obstructions and then build and join piping by a variety of different joints, depending on the material of the pipe and need for the job. You will bend pipe by hand or with pipe bending tools or machinery. Testing pipe systems for leaks by increasing pressure in pipes and observing gauges is another important aspect of this career.

Learn more about how to become a Pipefitter by visiting SteelToePro.com. If you're ready to begin your career in this exciting industry, create your free profile today!

Required Education: Certificate of Completion in pipefitting technology or pipefitter helper

Preferred Education: Associate degree in pipefitting technology

Salary: \$20-30/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Adaptability • Comprehend and Follow Oral Instructions • Construction Knowledge • Equipment Selection • Mechanical Tools, Equipment, and Systems • Safety Regulations and Procedures • Team Player 	<ul style="list-style-type: none"> • Load or unload building materials, machinery, or tools, distributing them to the appropriate locations • Clean or prepare construction sites to eliminate possible hazards • Signal equipment operators to correctly place machinery, equipment, or material • Measure, mark, or record openings or distances to layout areas where construction work will be performed • Dig ditches or trenches, backfill excavations, or compact and level earth to grade specifications, using picks, shovels, pneumatic tampers, or rakes • Mix, pour, or spread concrete, using portable cement mixers • Tend pumps, compressors, or generators to provide power for tools or machinery • Control traffic passing near, in, or around work zones

PETROCHEMICAL CAREER OPPORTUNITIES

Industrial Construction: Mid-Level

Boilermaker

Are you a jack of all trades? Do you like knowing how to fix all sorts of things? You might enjoy a career as a Boilermaker.

As a Boilermaker, you'll be trained to do many different kinds of jobs. You'll build, maintain, and repair boilers, pressure vessels, storage and process tanks, and other containers that hold liquids and gases under high pressure. Your work might also include installing and repairing air pollution equipment, installing heat-resistant materials in fireboxes and vessels. You may also find yourself installing and caring for the pipes used in dams and other structures.

The job is physically demanding so it's a great fit for those who don't want to sit at a desk all day. It's also important to be safety-minded and follow safety rules to ensure your safety and the safety of those around you.

Want to learn more about becoming a Boilermaker? Visit SteelToePro.com to learn more about the job or create a profile. You can also read construction articles and learn more about this exciting industry.

This job may require shift work.

Required Education: High school diploma or GED

Salary: \$18-38/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Comprehend and Follow Oral Instructions • Construction Knowledge • Equipment Selection • Install and Dismantle Equipment • Machine Monitoring and Control • Maintain Equipment • Mechanical Tools, Equipment, and Systems • Position and Weld Parts 	<ul style="list-style-type: none"> • Repair or replace defective pressure vessel parts, such as safety valves or regulators, using caulking, threading dies, welding equipment, or other metalworking machinery • Study blueprints to determine locations, relationships, or dimensions of parts • Read and use blueprints to locate and mark reference points for columns or plates on boiler foundations • Bolt or arc weld pressure vessel structures and parts together, using wrenches or welding equipment • Position, align and secure structural parts or related assemblies to boiler frames, tanks, or vats of pressure vessels • Shape or fabricate parts, such as stacks, uptakes, or chutes, to adapt pressure vessels, heat exchangers, or piping to current needs.

PETROCHEMICAL CAREER OPPORTUNITIES

Industrial Construction: Mid-Level

Crane Operator

Do you want to work outdoors? Do you have great teamwork skills? You might enjoy a career as a Crane Operator. In this role, you'll accomplish what looks impossible as you help build or repair large structures.

Safety will be your number one priority as you operate equipment to move large or heavy materials. Part of your job will also be to perform an inspection of your equipment and perhaps make minor repairs when needed. You may work with many different types, makes, models and sizes of cranes, such as mobile cranes, tower cranes, boom trucks and self-erect tower cranes. You'll work with Riggers and other team members to get the job done right.

Safety will be your number one concern in this job. Crane Operator's duties are complex and can be dangerous if you don't follow protocol and safety rules.

Want to learn more about becoming a Crane Operator? Visit [SteelToePro](#) to see industry resources and read more about what it's like to work in Construction Crafts.

This job may require shift work.

Required Education: High school diploma or GED

Salary: \$20-26/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Calculate Dimension/Tolerance • Comprehend and Follow Oral Instructions • Construction Knowledge • Equipment Selection • Inspect Equipment • Operate Large Vehicles • Operate Machines • Precise Hand/Eye Coordination • Safety Regulations and Procedures 	<ul style="list-style-type: none"> • Determine load weights and check them against lifting capacities to prevent overload • Review work orders or schedules daily • Inspect and adjust crane mechanisms or lifting accessories to prevent malfunctions or damage • Load shipments, belongings, or materials • Review schedules to determine orders, sequences of deliveries, or special loading instructions • Secure cargo • Inspect cables or grappling devices for wear and install or replace cables • Maintain material moving equipment in good working condition

PETROCHEMICAL CAREER OPPORTUNITIES

Industrial Construction: Mid-Level

Plumber

Do you like to work with your hands to solve problems? Do you like knowing the inner workings of buildings and other structures? You might enjoy a career in the Construction industry as a Plumber. Plumbers specialize in installing and repairing pipes that carry water, gas, or wastewater. You'll help decide what pipes should be laid and take care of the installation of those pipes. Teamwork is important as you work with electricians and other Construction Craft professionals.

Plumbers typically get training in skills such as pipe cutting, soldering, draining, and local plumbing codes. Next you'll probably train as an apprentice and then move on to become a licensed plumber. Want to learn more about becoming a Plumber? Visit [SteelToePro](#) to see industry resources, create a free profile, and learn more about Construction Crafts.

This job may require shift work.

Required Education: Certificate in plumbing

Preferred Education: Plumbing license

Salary: \$18-35/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Attention to Detail • Calculate Dimension/Tolerance • Conform to Specifications • Construction Knowledge • Coordination with Multiple Departments • Equipment Selection • Inspect Equipment • Mathematics Knowledge • Mechanical Tools, Equipment, and Systems • Read Technical Drawings and Blueprints 	<ul style="list-style-type: none"> • Install pipe assemblies, fittings, valves, appliances or fixtures using hand or power tools • Measure, cut, thread, or bend pipe to required angle, using hand or power tools or machines • Apply knowledge of safety procedures and plumbing codes • Use pipe cutters, pipe-threading machines, or pipe-bending machines • Assemble pipe sections, tubing, or fittings, using couplings, clamps, caulking, or soldering, brazing, or welding equipment • Review blueprints, building codes, or specifications to determine work details or procedures • Work with construction personnel in a team environment • Estimate time, material, or labor costs for use in project plans

PETROCHEMICAL CAREER OPPORTUNITIES

Industrial Construction: Mid-Level

Heavy Equipment Operator

Do you like the idea of using machines and vehicles to accomplish seemingly impossible tasks? You might consider a job as a Heavy Equipment Operator. You'll work to excavate sites, move dirt, pour concrete, and help build large structures and buildings.

You may start out working with forklifts, skid-steer loaders and other smaller heavy equipment. As an experienced Heavy Equipment Operator, you may use bulldozers, backhoes, excavators and cranes to prepare land for construction. You may also maintain and repair equipment as needed.

Projects may include helping to build roads, bridges, office buildings and other large structures. You'll have the satisfaction of seeing your hard work help to build things people use every day.

It's important to know and follow all safety procedures when working.

Are you ready to begin your path to a career as a Heavy Equipment Operator? Visit [SteelToePro](#) to learn more about this career and create a free profile today.

Experience Needed: Experience operating smaller heavy equipment is helpful in getting this job

Required Education: High school diploma or GED

Salary: \$20-25/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Comprehend Technical Drawings and Other Visual Instructions • Construction Knowledge • Equipment Selection • Inspect Equipment • Mechanical Tools, Equipment, and Systems • Operate Large Vehicles • Precise Hand/Eye Coordination • Safety Regulations and Procedures • Team Player 	<ul style="list-style-type: none"> • Coordinate machine actions with other activities, positioning or moving loads in response to hand or audio signals from crew members • Load and move dirt, rocks, equipment, or other materials, using trucks, power cranes, shovels, graders, or related equipment • Take action to avoid potential hazards or obstructions, such as utility lines, other equipment, other workers, or falling objects • Drive and maneuver equipment equipped with blades over working areas to remove topsoil, vegetation, or rocks or to distribute and level earth or terrain • Monitor operations to ensure that health and safety standards are met • Operate equipment to demolish or remove debris

PETROCHEMICAL CAREER OPPORTUNITIES

Industrial Construction: Mid-Level

Millwright

If you like to take things apart and put them back together you may find a career as a Millwright to be to your liking. You will troubleshoot and repair machinery and heavy equipment around the plant as a Millwright. It's a physically demanding job in an exciting environment.

Millwrights are highly skilled and have a solid understanding of how the machines work to repair them when they break down. Repairing machines typically involves taking the machine apart and then putting it back together. An ability to read equipment blueprints, access information from manuals, and knowledge of hand and measurement tools is necessary. When making repairs, you'll need to follow all safety processes and procedures and wear the necessary safety gear.

As a Millwright, you may also help recommend new equipment when it is time to replace outdated or broken equipment. You will help to oversee the installation of the new equipment. You will also perform preventative maintenance on machines to keep everything working smoothly so production stays on schedule.

If you are interested in a career as a Millwright, a high school diploma is required, but many employers prefer someone who has completed a training or a program at a community college. Learn more about this career at SteelToePro.com and create your free profile today.

This job may require shift work.

Required Education: High school diploma or GED

Preferred Education: Associate degree in industrial systems or applied science. Certificate in industrial systems or Certificate in industrial systems, millwright

Salary: \$20-25/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Calculate Dimension/Tolerance • Equipment Selection • Install and Dismantle Equipment • Maintain Equipment • Mathematics Knowledge • Mechanical Tools, Equipment, and Systems • Operate Machines • Repair Machines and Equipment • Troubleshooting 	<ul style="list-style-type: none"> • Troubleshoot and repair equipment failures • Disassemble and reassemble machinery and equipment as needed • Perform routine and preventative maintenance on machines and equipment • Review and update maintenance equipment procedures • Work to improve reliability of equipment • Ensure parts are available for jobs in order to keep the team working • Adhere to all safety processes and procedures

PETROCHEMICAL CAREER OPPORTUNITIES

Industrial Construction: Mid-Level

Welder

Are you skilled with your hands and calm under pressure? Interested in making things for a living? As a Welder, you'll be able to do all of this in an exciting environment. It will require a steady hand, lots of physical strength, and an eye for quality and detail.

Welders use high heat in order to attach two metals together. You'll need to be able to read technical drawings and set up various components and parts accordingly, then weld them using a torch. You may need to spot flaws in materials and designs, troubleshoot broken areas, and know how to fix worn parts and/or equipment. You might work with a partner or in a team, which will require excellent communication skills and a concern for others. You'll need to keep in mind safety codes and regulations at all times and report any unsafe activity or situations. Other tools will also be used and will vary depending on the project and materials.

Potential employers will expect you to have taken some training before applying for the job. Look for [vocation or certification courses, or a degree](#) that offers hands-on experience. An apprenticeship program is another way to try out welding and gain experience.

Learn more about how to become a Welder by visiting the SteelToePro.com. You can also read more about Construction Crafts and learn how to get a great career in Construction.

Required Education: Technical certificate or Associate degree in welding

Preferred Education: Associate degree in welding or a welding certification

Salary: \$20-30/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Attention to Detail • Comprehend Technical Drawings and Other Visual Instructions • Create Solutions to Complex Problems • Mathematics Knowledge • Physics Knowledge • Position and Weld Parts • Precise Hand/Eye Coordination • Safety Regulations and Procedures • Team Player 	<ul style="list-style-type: none"> • Weld components in flat, vertical, or overhead positions • Operate safety equipment and use safe work habits • Position and secure parts prior to assembly • Measure and examine workpieces for defects • Set up and operate hand and power tools such as welding equipment • Weld separately or in combination, using aluminum, stainless steel, cast iron, and other alloys

PETROCHEMICAL CAREER OPPORTUNITIES

Industrial Construction: Mid-Level

Electrician

Are you a problem solver? Do you like to work with your hands? Electricians are always on the go working on electrical systems and machines. You'll do everything from installation to diagnosing and resolving electrical problems. You'll apply electrical theory to build, repair, calibrate, and modify electrical components, circuitry, and machines. Your safety and that of others is a top priority. You always need to wear personal protective gear to be in compliance with rules and policies.

Other duties include routine maintenance, locating and correcting power failures and short circuits. You'll also perform mechanical repairs as needed. You will also document work and update files as needed. Many tasks will require the use of hand and power tools, so you'll be reading manuals, technical drawings, and wiring diagrams. All work you do must comply with federal, state, and local electrical codes and regulations.

Electricians perform a wide range of physical activity such as climbing, bending, stooping, and kneeling. You'll also be performing duties at a variety of heights, sometimes on a ladder or an electronic lift. This job may require shift work.

Find out more about what it takes to be an Electrician at SteelToePro.com.

Experience Needed: You may be able to substitute three or more years of experience as an electrician in an industrial setting for a degree or certificate.

Required Education: Certificate from accredited apprenticeship program

Preferred Education: Associate degree or certificate in electrical technology or related field

Salary: \$18-42/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Attention to Detail • Check, Examine and Record • Comprehend Technical Drawings and Other Visual Instructions • Electrical Systems Knowledge • Inspect Equipment • Maintain Equipment • Precise Hand/Eye Coordination • Repair Machines and Equipment • Safety Regulations and Procedures 	<ul style="list-style-type: none"> • Comply with all health, safety, and environmental practices and policies • Perform routine scheduled and unscheduled electrical troubleshooting, repair, and calibrations • Work on circuits, motor control systems, and switch gears • Read electrical schematics and blueprints • Inspect, maintain, troubleshoot power distribution and power transformers • Participate in site-wide process safety and risk reduction activities as requested • Maintain prints and files in proper place • Document work and update procedures, drawings, specs, and files

PETROCHEMICAL CAREER OPPORTUNITIES

Industrial Construction: Senior-Level

Construction Foreman

Are you a natural born leader? Can you motivate and direct others? These skills might make you a great Construction Foreman. In this role, you'll oversee a crew of specialized tradesmen and construction workers. There are usually several types of Construction Foremen on construction jobs.

Construction Foremen develop their skills in a particular area such as electrical work, carpentry, plumbing or another part of construction. You'll need specialized training such as an apprenticeship in a particular craft. Then you'll need to be the best at your craft and display leadership skills. With hard work and dedication, you can become a Construction Foreman and help other workers do their best every day.

Are you ready to begin your path to a career as a Construction Foreman? Register for free today to SteelToePro.com.

This job may require shift work.

Experience Needed: Specialized training such as an apprenticeship

Required Education: High school diploma or GED

Preferred Education: Certification in Construction Site Management or similar

Salary: \$23-38/hour

CRITICAL SKILLS	KEY RESPONSIBILITIES
<ul style="list-style-type: none"> • Adaptability • Construction Knowledge • Leadership • Manage Material Resources • Manage Multiple Tasks and Timelines • Manage Personnel Resources • Manage Processes and Procedures • Train and Motivate Others 	<ul style="list-style-type: none"> • Supervise a crew of workers in a specific craft or trade • Oversee training of new crew members • Communication with project managers and other supervisors • Oversee safety practices and procedures • Divide and delegate work to constructor laborers and other workers • Manage budgets and timelines to ensure the project stays on track • Display strong leadership characteristics