AHK German American Chambers of Commerce Deutsch-Amerikanische Handelskammern

GACC Pit Chapter

Apprenticeship Programs

COURSE CATALOG

AHK German American Chambers of Commerce
Deutsch-Amerikanische Handelskammern

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About us

The Pittsburgh Chapter of the German-American Chamber of Commerce (GACC PIT) connects world-class German training standards with U.S. industry needs. Through our partnership with the German Chambers of Industry and Commerce (IHK), we offer over 360 proven training modules, adapted into 2.5-year dual apprenticeship programs that combine classroom theory with hands-on workplace experience.

Benefits Overview

EMPLOYERS

- Build a skilled talent pipeline
- Tailored training to company needs
- Improve retention and loyalty
- Access to proven German training module

APPRENTICES

- No tuition fees
- Earn while you learn
- Hands-on industry experience
- Internationally recognized certification.

German American Chambers of Commerce
Deutsch-Amerikanische Handelskammern

MISSION AT GACC PIT

To help employers create a sustainable pipeline of skilled talent by attracting young people to manufacturing careers, investing in training that builds employee loyalty, and preparing well-rounded technicians.

EMPLOYER-SPONSORED TRAINING AND EDUCATION

- Employer selects and hires the apprentice; this is the primary relationship
- Employer provides on the job training (OJT). Active training and not job shadowing is an important aspect.
- Employer invests in the apprentice:
- Hourly wages while at work,
- Tuition for RTI (Related Technical Instruction),
- Full-time hours combining OJT and Classroom Training (Dual Program)

WE SUPPORTS THE COMPANY THE WHOLE WAY THROUGH, WITH THE FOLLOWING:

- Marketing to candidates
- Developing customized company training plans based on industry-defined competencies
- Coordination with community colleges
- Ongoing consulting, support, and administration, and
- Reliable quality control via Apprenticeship Program Exams (Licensed by the DiHK, translated to English)

Our GACC Pit Chapter

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Apprenticeship Programs

Mechatronics Technician

Polymer Process Technician

Sales Engineer

CAM/CAD Technical Designer

EV Automotive Technician

Chemical Lab Technician

Mechatronics Technician

Technology Install, troubleshoot, and repair electrical, mechanical, and control systems (including robotics, pneumatics, hydraulics, and electronics); wire motors/drives; assemble and maintain machinery; read schematics; configure hardware/software; perform QA testing.

Methodology Apply systematic problem-solving (Plan-Do-Check-Act), ensure proper documentation, work safely with PPE, follow quality management principles, and communicate effectively.

Potential Roles: Maintenance Technician, Automation/Robotics Technician, Control Systems Specialist, Service/Field Service Technician, or Industrial Equipment Installation and Maintenance Specialist.

CERTIFICATIONS

- DOL Journeyman Certification • Certification and/or Associates
- Degree (A.S.) Mechatronics Technology
- • Manufacturing Skill Standards Council (MSSC) Certified Production Technician (CPT)
- PMMI
- DiHK German Certification in Mechatronics (Mechatroniker)

Practical Hours

ROADMAP TO SUCCESS

A Road to success requires 2700 hours of On the Job Training (25 months).

Apprentices receive supervised, safe, and varied on-the-job training across all work phases, with rotations and progress tracking.

WORK PROCESSES	
A.	HR, Workshop safety, Manufacturing Planning, Project Layout, Project management, material selection
B.	Materials Identification: Repair parts for sub assembling, tools, electrical supplies, electrical components
C.	Conduit Work: Planning and running conduit for electrical circuits in the building and on machines
D.	Machining: Lathes, Drill Press/Radial Drill, Mills, Misc. Grinders, Bench Work, Layout & Fabrication
E.	Machines: Troubleshooting, repairing, preventive maintenance of machines
F.	Use of small Power Tools, Hoists & Crane Systems: Including troubleshooting and repairs
G.	Engineering, Making Design Changes, Updating Electrical circuits
H.	Welding, Brazing & Silver Soldering, Stick, Mig & Tig including sanitary stainless-steel welding
I.	Power Distribution: Troubleshooting, preventive maintenance of power distribution circuits
J.	Troubleshooting Electronic Equipment and sub components, electrical drawing reading, proximity sensors and devices
K.	Preventive Maintenance – Electric: Diagnostics and quality checks
L.	Preventive Maintenance – Mechanics: Sound and vibration measurements, quality checks
M.	Understanding Programmable Logic Controllers, HMI, VFDs and there use in troubleshooting
N.	Automation and Robotics overview and basic programming

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Practical Hours

ROADMAP TO SUCCESS

A Road to success requires 2700 hours of On the Job Training (25 months).

Apprentices receive supervised, safe, and varied on-the-job training across all work phases, with rotations and progress tracking.

WORK PROCESSES		APPRO X. HOURS
O.	Machine Operation and controls sequencing, product changeovers and setup	120
P.	Utilities: Electrical drops, tower water, cooling water systems, air	100
Q.	Power Transmission Systems, Drive Systems, Gearboxes, Transmissions, Etc.	120
R.	Fluid and Hydraulic systems: Flowrates, pressure and temperature control, control components, piping, pump design and troubleshooting	120
S.	Lubrication and Coolant Systems including HCU and Chillers	120
T.	Pneumatic Systems: valves, piping and pump design and troubleshooting	120
U.	Transfer Machinery and Material Handling Systems and Conveyors	100
V.	After sales service and customer support	80
W.	HR, Finance, Accounting and Controlling	40
X.	Forklift, Forklift driving, rigging	40
	PRACTICAL OJT HOURS	**2700**

Academic Curriculum

ROADMAP TO SUCCESS

The curriculum for students enrolled in a Mechatronic Technician at A Road to success requires 660 hours of classroom training.

Course Schedule Example

Year	Hours	Required Course
One	60	Introduction to Electronics
	60	Fluid Power Systems
	60	Introduction to Mechanical Systems
	60	Mechatronics & Industry 4.0
	60	Manufacturing Technology: Math, Technology, and Reasoning
Total	**300**	
Two	60	Digital Electronics
	60	Industrial PowerSystems
	60	Programmable Logic Controllers
	60	ManufacturingTech" Processes, Controls& Quality
Total	**240**	
Three	60	Intro to Robotics
	60	Motor and Motor Controls
Total	**120**	
Total	**660**	

Potential Provider(s):
Community College of Allegheny County, Westmoreland County Community College, Butler County Community College, Community College of Beaver County, Northern Pennsylvania Regional College

Polymer Process Technician

Technology Operate, set up, troubleshoot, and maintain extrusion/blow mold machinery; understand machine components and materials (PVC/Regrind); perform quality control checks; adjust processes; program and maintain mechatronic systems; assemble and dismantle machinery; perform preventive maintenance.

Methodology Work systematically (Plan-Do-Check-Act); analyze and troubleshoot problems; document accurately; follow safety procedures and use PPE; apply quality management; communicate effectively.

Potential Roles: Extrusion Technician, Injection Mold Technician, Blow Mold Technician.

CERTIFICATIONS

- DOL Journeyman Certification,
- A.S. Polymer and Mechatronics Technology
- Polymer Technology Certification,
- Manufacturing Skill Standards Council (MSSC)
- Certified Production Technician (CPT)
- PMMI
- DiHK German Certification in Polymer Technician

Practical Hours

ROADMAP TO SUCCESS

A Road to success requires 2700 hours of On the Job Training.

Apprentices receive supervised, safe, and varied on-the-job training across all work phases, with rotations and progress tracking.

WORK PROCESSES		APPRO X. HOURS
A.	Set up and pulling an extrusion die and/or blow molding	280
B.	Components of an Extruder/Blow Mold Machine	150
C.	Set-up extrusion/blow mold line	200
D.	Start-up steps of an extrusion line	120
E.	Trouble-shooting extrusion/blow mold lines (Problem / Action)	200
F.	Machine operation and control sequencing, product changeovers and set up	120
G.	Using control and optimize calibration table with energy control	120
H.	Operating: Material process, Extruder/Blow Molding rates and mathematical formulas, Trouble-shooting Catalogue	120
I.	Quality Control: Visual inspections and dimensional checks, Monitor and operating Extrusion line	120
J.	Stacking and Packaging / Barcoding / Weather Strip Insertion / BDE Sample Collection	120
K.	Maintaining and inspecting tooling and cooling routes to check for damage and ensure proper mold cooling during production.	120
L.	Lab / Compound: Material control and quality	100
M.	Fine Tuning Process: Design, test, run, modification on tooling and inspection	220
N.	Preventive Maintenance - Electric	140

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Practical Hours

ROADMAP TO SUCCESS

A Road to success requires 2700 hours of On the Job Training (2 months).

Apprentices receive supervised, safe, and varied on-the-job training across all work phases, with rotations and progress tracking.

WORK PROCESSES		APPRO X. HOURS
O.	Preventive Maintenance - Mechanics	140
P.	Trouble-shooting, preventive maintenance of machines	140
Q.	Use of small power tools, electronic sensor equipped data logger, hoist & crane systems	100
R.	Engineering: Fundamentals of counter rotating, intermeshing Twin Screw Extruders	100
T.	Tool and Die: Bench working dies, calibration, templates and polishing	100
V.	Participates in Continuous Improvement	50
	PRACTICAL OJT HOURS	**2700**

Academic Curriculum

ROADMAP TO SUCCESS

The curriculum for students enrolled in a Polymer Technology Porcess Technician at A Road to success requires 699 hours of classroom training.

Course Schedule Example

Year	Hours	Required Course
One	40	Basic Electrical (1,2,3,4)
	80	Motor Control (1,2)
	20	Industrial Electrical Wiring
	30	Power Distribution
	25	Polymer Technology Certification- Part 1
Total	**195**	
Two	24	Introduction to Robotics
	45	Polymer Technology Certification Part 2
	20	Job Shadowing
	50	Programmable Controllers (1,2,3)
	40	Hydraulics (1,2)
	45	Welding Fundamentals
	45	Engineering Drawing
Total	**269**	

Academic Curriculum

ROADMAP TO SUCCESS

The curriculum for students enrolled in a Polymer Technology Porcess Technician at A Road to success requires 699 hours of classroom training.

Course Schedule Example

Year	Hours	Required Course
Three	25	Polymer Technology Certification Part 3
	10	Pneumatics
	10	Pneumatics Maintenance
	10	Piping Systems
	10	Electro-Fluid Power I
	20	Hydraulic Troubleshooting I
	10	Basic Mechanical Drives
	10	Light Duty V-Belt and Chain Drives
	10	Heavy Duty V-Belt Drives
	10	Heavy Duty Chain Drives
	45	Robotics and Controls
	45	Advanced Welding
Total	**235**	
Total	**699**	

Potential Provider(s):
Community College of Allegheny County, Westmoreland County Community College, Butler County Community College, Community College of Beaver County, Northern Pennsylvania Regional College

Sales Engineer

Technology Learn technical details of software relevant to clients, learn how to market for B2B sales, generate sales leads, evaluate data, problem-solve with installed equipment, identify customer needs, communicate with upper management

Methodology Build marketing and sales skills, demonstrate follow-up, cross-selling, up-selling skills, use problem-solving and customer-oriented strategy, communicate between customer and engineers/R&D, quality management

Potential Roles: Sales Engineer, Technical Sales, Inside Sales, Outside Sales Engineer

CERTIFICATIONS

- DOL Journeyman
- Certification
- Associates Degree in Business with Sales Engineering Certification
- Manufacturing Technician Level 1 (MS Institute)
- DiHK German Certification in Sales Engineering (Industriekaufmann/Frau)

Practical Hours

ROADMAP TO SUCCESS

A Road to success requires 2605 hours of On the Job Training (30 months).

Apprentices receive supervised, safe, and varied on-the-job training across all work phases, with rotations and progress tracking.

WORK PROCESSES		APPRO X. HOURS
A.	Accounting & Finance: Financial organization and needs, how to read information	90
B.	Purchasing & Procurement: Supplier management, review and selection, contract terms and conditions, stakeholder Engagement	150
C.	Production: technology and machine park, raw materials, variations, quality control, lean manufacturing, plant safety, calibration	400
D.	Marketing: Company history, mission and vision, USP and values, Lead development, CRM software, mix and outreach, material overview & production, events and exhibitions	380
E.	Sales:, Cycle of sales, elevator pitches, KPIs, lead development, client list, prospecting, sales pitches, territory management, branding	900
F.	Distribution: Supply chain management, network design, demand forecasting, inventory control in single- and multi-echelon systems	80
G.	Warehousing: inspection, handling, slotting, inventory control, SMART, warehouse management systems (WMS)	100
H.	R&D: Improve manufacturing process and tools, product development, improvement & innovation, improve competitiveness	70
I.	Human Resources: Workforce and personnel requirement analysis, recruitment, staff deployment, HR management and development, HR controlling	25
J.	Service / Customer Service: Customer Relationship Management systems and practices, communication with customer, complaints management, building relationships	110
K.	Quality Management: Quality tests on the products, knowledge about different quality assurance methods, documentation of quality tests and quality assurance, ISO 9001, CE Labeling, UL, EAC Certificates	100
L.	Safety & Environmental/OSHA: OSHA Law and regulations, safety training at the workplace and manufacturing facility, environmental awareness training	80
M.	Manufacturing Management: scheduling, cost effectiveness, implementation of quality control and safety guidelines, estimating lead and production times	120
	PRACTICAL OJT HOURS	2605

Academic Curriculum

ROADMAP TO SUCCESS

The curriculum for students enrolled in a Sales Engineer program requires 466 hours of classroom training.

Course Schedule Example

Year	Hours	Required Course
1	23	Business Communication
	30	Introduction to Business or Principles of Management
	30	Financial Accounting
	45	Managerial Accounting
	45	Production Management - Planning, Operating and Controlling
Total	**175**	
2	50	Supply Chain Management
	23	Human Resource and Organization Management
	30	Principles of Macroeconomics
	50	Principles of Marketing + Principles of Selling
	45	Investments and Finance
	x	Midterm Exam
Total	**198**	

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Academic Curriculum

ROADMAP TO SUCCESS

The curriculum for students enrolled in a Sales Engineer program requires 466 hours of classroom training.

Course Schedule Example

Year	Hours	Required Course
2.5	50	Planning, Operating and Controlling Sales Processes
	23	Final Project: Implement business strategies and projects
	20	Optional Electives (e.g. Blueprint Reading, Fluid Power Systems)
Total	**93**	
Total:	**466**	

Potential Provider(s):
Community College of Allegheny County, Westmoreland County Community College, Butler County Community College, Community College of Beaver County, Northern Pennsylvania Regional College

CAM/CAD Technical Designer

Technology Create and edit CAD/CAM part models, program multi-axis machines, select tooling, plan manufacturing processes, maintain quality/revisions, troubleshoot machines, and apply GD&T.

Methodology Analyze systems, design components, ensure safe/quality work, and communicate effectively with customer focus.

Potential Roles: AD/CAM Technical Designer, Mechanical Design Engineer, CAD Product Designer, Technical Drafting.

CERTIFICATIONS

- DOL Journeyman Certification
- Associates Degree (A.S.) Entrepreneur and Design
- AutoCAD certification
- DiHK German Certification in CAD/CAM Technical Design

Practical Hours

ROADMAP TO SUCCESS

A Road to success requires 7000 hours of On the Job Training.

Apprentices receive supervised, safe, and varied on-the-job training across all work phases, with rotations and progress tracking.

	WORK PROCESSES	APPRO X. HOURS
A.	Safety and Environmental Training: Identify hazards, apply regulations	50
B.	Create and Apply Technical Documents: Standard specifications, geometric relations, rules of dimensioning, free-handing, creating technical documents, parts lists, learn standards	550
C.	Computer-aided Design Introduction (CAD): Coordinate systems, entry maps, editing and drawing functions, wire geometry, data management, etc.	500
D.	Introduction to Computer-Aided Machining (CAM): Setup, post processors, lathe programming, etc.	400
E.	Operation: Materials Process: Distinguish properties, apply materials standardization	300
F.	Product Development: Apply statistical analysis tools, product life cycle, communications methods	500
G.	Plan and Design Components and Assemblies: Find and present solutions	450
H.	Design, Finalize and Calculate Components and Assemblies: functional, production, requirements, assembly, testing requirements for constructions.	500
I.	Manufacturing Processes and Design: Run simulations with virtual assemblies and collision	400
J.	Product Design of Objects: stages of design processes, sketches, CAD models physical models, basics of design-sketches (functionality, ergonomics, material properties)	300
K.	Product Design of Free-form surfaces: types of curves, curve transitions, free-form surfaces, transitions, polysurfaces, free-form surfaces	300
L.	Simulation and Presentation- Virtual motion simulations with behavior of components and assemblies, visualization techniques	300
M.	Manufacturing Technology: primary shaping, forming, machining on design, dimensioning, surface finish, measurability of components, calculations for joining processes and assembly techniques.	200

Practical Hours

ROADMAP TO SUCCESS

A Road to success requires 7000 hours of On the Job Training (30 months).

Apprentices receive supervised, safe, and varied on-the-job training across all work phases, with rotations and progress tracking.

WORK PROCESSES		APPROX. HOURS
N.	Control and Electrical Engineering: Evaluate circuits with hydraulic and electropneumatic components, apply laws of electrical engineering, identify hazards, incorporate principles into CAD design	300
O.	Create and Apply Technical Documents: Standard specifications, geometric relations, rules of dimensioning, free-handing, creating technical documents, parts lists, learn standards	300
P.	Communication techniques: Company communication and information systems, software for spreadsheets, word processing, presentations, data security and back up data	150
Q.	Quality Assurance: Understand, apply, identify contribute in quality assurance measures in own area of work, how to take and document measures to correct defects. Participate and contribute to continuous improvement, lean development, safety projects.	300
R.	Customer Orientation- Inform and advise customers within company procedures, rules, communication policies. Learn customer requirements.	100
	PRACTICAL OJT HOURS	7000

Academic Curriculum

ROADMAP TO SUCCESS

The curriculum for students enrolled in a CAD/CAM program requires 492 hours of classroom training.

Course Schedule Example

Year	Hours	Required Course
1	30	Engineering Drawing 1
	30	Introduction to Computer Aided Drafting (CAD)
	2	Engineering Seminar
	20	Algebra Fundamentals
	30	Introduction to Machining
	20	Math for the Technologies
Total	**152**	
2	30	Engineering Drawing 2
	20	Math for Technologies 2
	20	Introduction to Lathe Operations
	30	Computer Asstd Drafting Applications
	30	Technical Physics 1
	30	Technical Computing
	20	Introduction to Mill Operations
	30	Introduction to Architectural Modeling
Total	**180**	

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Academic Curriculum

ROADMAP TO SUCCESS

The curriculum for students enrolled in a CAD/CAM program requires 492 hours of classroom training.

Course Schedule Example

Year	Hours	Required Course
3	30	Parametric Modeling 2
	10	Technical Communications
	30	Customizing the CAD Environment
	30	Intro to Parametric Modeling
	30	Fundamentals of Computer Controlled Machining
	30	Advanced CNC and Mastercam
	-	GACC Final Exam
Total	**160**	
Total:	**492**	

Potential Provider(s):
Community College of Allegheny County, Westmoreland County Community College
Northern Pennsylvania Regional College

EV Automotive Technician

Please Note: Prior Knowledge required!

This program is only open to individuals with a prior background in the automotive field.

Technology Work with high-voltage systems, electric motors, battery management systems, and advanced EV components. Use diagnostic tools, CAN bus systems, chargers, and experimental pilot setups. Operate and maintain EV-specific equipment including inverters, DC/AC converters, and high-voltage batteries.

Methodology Follow strict safety protocols (PPE, lockout/tagout, fire safety, ASE Safety Certification), conduct diagnostics, perform maintenance and disconnections, troubleshoot system faults, manage battery state-of-charge, and integrate EV subsystems. Hands-on learning includes regenerative braking, high-voltage climate systems, steering, ADAS, and park assist systems.

Potential Roles: EV Automotive Technician, High-Voltage Systems Specialist, Battery Diagnostics Technician, Electric Vehicle Maintenance Specialist, EV Systems Integration Technician.

CERTIFICATIONS

- Journeyworker Papers (Dept. of Labor & Industry)
- EV Automotive College Certificate from CCAC
- ASE Certification in High-Voltage Electrical Safety Standards
- German Apprenticeship Certificate (DiHK) as Kfz-MechatronikerIn System- und Hochvolttechnik

Practical Hours

ROADMAP TO SUCCESS

A Road to success requires at least 2000 hours of On the Job Training.

Apprentices receive supervised, safe, and varied on-the-job training across all work phases, wand progress tracking.

	WORK PROCESSES	APPRO X. HOURS
A.	Conduct hazard assessment on high-voltage vehicles, analyze risks, derive protective measures (e.g. PPE), and develop work instructions	100- 125
B.	Turn off and turn on vehicle systems, especially air conditioning systems, electrical systems, pneumatic systems, hydraulic systems, and pyrotechnic systems, according to manufacturer specifications, check functions, and document results	100- 125
C.	Perform measurements and functional tests on high- voltage components and systems under voltage during removal, commissioning, and testing	100- 125
D.	Check the effectiveness of electrical protective measures on the high-voltage system	100- 125
E.	Determine diagnostic and repair options	75- 85
F.	Identify the structure, function, and mode of operation of drive technologies and mobility concepts	75- 85
G.	Check and evaluate communication with the traffic infrastructure and other road users	75- 85
H.	Identify and update the software for control units, perform resets and basic settings on vehicle systems, and adjust learning value	75- 85
I.	Identify and distinguish the structure, function, and mode of operation of high- voltage systems and their components	80 -90
J.	Check high-voltage systems with diagnostic devices, in particular perform insulation measurements, potential equalization measurements, voltage drop measurements, pressurize battery after closure and test	80- 90
K.	Analyze and evaluate messages in data bus systems	75- 80
L.	Locate errors in wireless signal transmission systems	75- 80
M.	Perform functional analysis on air conditioning systems, networked vehicle components, in particular on driver assistance systems, active safety systems, and proactive traffic management systems	70- 80

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Practical Hours

ROADMAP TO SUCCESS

A Road to success requires at least 2000 hours of On the Job Training.

Apprentices receive supervised, safe, and varied on-the-job training across all work phases, wand progress tracking.

WORK PROCESSES		APPROX. HOURS
N.	Check and evaluate drive units including engine management system, exhaust system, and auxiliary units	70- 80
O.	Check and evaluate automated manual transmissions and automatic transmissions	70- 80
P.	Locate errors in the entertainment system, information system, and communication system	70- 85
Q.	Check and evaluate driver assistance systems with regard to the vehicle's suspension geometry	70 - 85
R.	Use fault-finding programs, manufacturer information, and databases, as well as hotline and telediagnosis	80- 90
S.	Repair and replace high- voltage components	85- 95
T.	Prepare high-voltage cables, process them using different connection techniques, and connect high-voltage components, taking electromagnetic compatibility into account	85- 95
U.	Repair electrical and optoelectronic data communication cables	65- 80
V.	Repair entertainment systems, information systems, and communication systems	65- 80
W.	Repair drive units, especially management systems	60- 80
X.	Repair driver assistance systems	60- 80
Y	Diagnose, repair, and retrofit systems, components, and signal processing circuits for optical transmission systems	30- 40
Z (1)	Retrofit vehicles with wireless signal transmission systems, antenna systems, and entertainment electronics	35- 50
Z(2)	Prepare, install, and convert accessories, additional equipment, and special equipment for installation and conversion, connect, check function, and document changes	35- 50
Z(3)	Diagnose, repair, and retrofit electric vehicle systems and assemblies specific to the manufacturer’s training standards (usually 4-5 days of in-house training)	40- 50
	PRACTICAL OJT HOURS	2000

Academic Curriculum

ROADMAP TO SUCCESS

The curriculum for students enrolled in an EV Automotive Technician n program requires 185 hours of classroom training.

Course Schedule Example

Year	Hours	Required Course
1	50	Safety & Electrical Awareness
	20	Discuss High Voltage Drive Train Topology & Construction
	25	Electric Motors and Controls
	30	Battery Management
	30	High Voltage Battery Diagnostics and Maintenance
	30	Additional EV Automotive Systems
Total:	**185**	

PotentialProvider(s):

Community College of Allegheny County

Chemical Lab Technician

Technology Handle and analyze chemicals using laboratory instruments and techniques such as chromatography, spectroscopy, titrations, and microscopy. Operate experimental pilot plants, prepare solutions, maintain and calibrate lab equipment, and record/interpret data.

Methodology Follow lab protocols and safety standards (OSHA 10, chemical hazard handling), conduct experiments, collect and analyze data, maintain lab inventory, and document results through reports and charts.

Potential Roles: Chemical Lab Technician, Research Assistant, Quality Control Analyst, Laboratory Specialist, Chemical Analyst.

CERTIFICATIONS

- Journeyworker Papers (Dept. of Labor & Industry)
- Chemical Lab Technician Diploma from Bidwell Training Center
- OSHA 10 Certificate
- German Apprenticeship Certificate (DiHK) as Chemie LaborantIn

Practical Hours

ROADMAP TO SUCCESS

A Road to success requires 4000- 5000 hours of On the Job Training.

Apprentices receive supervised, safe, and varied on-the-job training across all work phases, wand progress tracking.

WORK PROCESSES		APPRO X. HOURS
A.	Analyze chemical compounds or substances	600- 730
B.	Maintain laboratory or technical equipment	100- 165
C.	Evaluate qualityof materials or products	240- 305
D.	Prepare compounds or solutions for products or testing.	400- 465
E.	Set up laboratory or field equipment.	840- 915
F.	Interpret researchor operational data	300- 365
G.	Serve on institutional or departmental committees	100- 165
H.	Train personnelin technical or scientific procedures.	100- 165
I.	Prepare scientific or technical reportsor presentations	200- 265
J.	Manage scientific or technical project resources	100- 165
K.	Operate laboratory or field equipment	620- 700
L.	Supervise scientific or technical personnel	100- 165
M.	Develop new or advancedproducts or production methods	300- 430
Total:		**4000- 5000**

Academic Curriculum

ROADMAP TO SUCCESS

The curriculum for students enrolled in a Chemical Lab Technician program requires 1170 hours of classroom training.

Course Schedule Example

Name	Hours	Required Course
MATH 101	120	Technical Mathematics
CHEM 101	120	Chemistry for Technicians
CHEM 102	96	Organic Chemistry for Technicians
CHEM 103	96	Materials Chemistry for Technicians
LAB 101	48	Introduction to the Chemistry Lab
LAB 102	96	Measurement and Solutions
LAB 103	96	Chemical Reactions and Titrations
LAB 104	120	Synthesis and Characterization
LAB 105	120	Instrumental Analysis
LAB 106	90	Applied Chemical Methods
PD 101	24	Professional Development 1: Career Exploration
PD 102	24	Professional Development 2: Resume Building/Professional Documents
PD 103	24	Professional Development 3: Interview Skills
COMP 101	48	Intro to Computers
COMP 102	48	Technical Communication
Total:	**1170**	

PotentialProvider(s):

Bidwell Training Center

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More Questions?

Reach out!

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