

SHAHINBANU PATEL

CHEMISTRY TECHNICIAN - Analytical Chemistry, ICP-OES & Wet Chemistry Testing

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☎ 705-821-1629

📍 Scarborough (Open to Relocation)

in [LinkedIn](#)

PROFILE SUMMARY

Analytical Chemistry Technician with experience in ICP-OES metals testing, wet chemistry analysis, and ISO 17025 laboratory quality systems. Expertise in acid digestion, LIMS documentation, and instrument calibration, supporting environmental and 95% regulatory compliance. Experienced in GMP, GLP, and WHMIS-compliant laboratory operations. Recently completed a post-graduation in Biotechnology studies at Centennial College.

SKILLS

- **Analytical & Wet Chemistry:** Qualitative and quantitative analysis, titrations, pH, turbidity, oil and grease.
- **Metals Testing & ICP-OES:** Acid digestion, multi-element standards, calibration checks, SPE-DEX 3000.
- **Quality Systems:** ISO 17025, GMP, GLP, SOP adherence, batch records, ALCOA+ documentation control.
- **Laboratory Operations:** Reagent prep, equipment calibration, LIMS entry, and sample labeling.
- **Instrumentation:** Analytical balances, incubators, pH meters, and standards handling.
- **Safety & Compliance:** WHMIS 2025, PPE use, chemical handling, and waste disposal regulations.

WORK EXPERIENCE

Laboratory Technician - Environmental Chemistry (Co-op)

September 2024 – January 2025

York-Durham Regional Environmental Laboratory

Pickering, Ontario

- Directed ISO 17025-compliant pH, turbidity, solids, oil & grease analyses, processing 40+ regulatory samples daily with 100% traceable LIMS documentation and validated QC controls.
- Led SPE-DEX 3000 extraction workflows including canister replacement, valve cleaning, and system diagnostics, reducing instrument downtime by 25% and sustaining continuous batch throughput.
- Coordinated acid digestion and multi-element standard preparation for ICP-OES metals testing after one week of training, completing 30+ batches weekly with 98% calibration acceptance and zero audit observations.
- Implemented QA/QC verification procedures, including duplicate samples, blanks, and calibration checks, ensuring 98% compliance with regulatory standards and improving analytical result reliability across environmental testing workflows.

Prep Cook – Food Safety & QA Documentation

September 2023 – April 2024

Adelaide Place Retirement Community

Lindsay, Ontario

- Maintained HACCP temperature logs, sanitation records, and batch documentation for 200+ daily meal preparations, achieving 100% regulatory inspection compliance.
- Coordinated controlled food storage, labeling, and traceability documentation, reducing non-conformance findings by 30% across scheduled health audits.
- Executed sanitation verification and cross-contamination controls during high-volume service cycles, sustaining 0 critical violations in consecutive inspection reports.

Science Teacher - Chemistry & Biology (Laboratory Practicals)

June 2022 – July 2023

The Varediya Sarvajanic High School

India

- Directed 10+ weekly laboratory practical sessions, enforcing PPE usage and chemical handling procedures, maintaining 0 safety incidents across 200+ conducted experiments.
- Managed reagent formulation, volumetric solution preparation, and apparatus calibration for 100+ annual experiments, ensuring 100% adherence to procedural safety specifications.
- Implemented structured laboratory storage and chemical segregation controls, achieving 100% compliance during quarterly safety inspections and internal evaluations.

Assistant Chemist / QC Laboratory Technician

September 2018 – October 2019

Indofil Industries Ltd.

India

- Executed 25+ daily titrations, pH verification, stability and purity assays, achieving 99% reproducibility across formulation validation and physicochemical characterization protocols.
- Supervised solution preparation, gravimetric weighing, and dilution calculations for 20+ production batches weekly, ensuring 100% GMP-conforming concentration specifications.
- Administered batch record review, QC calculations, and compliance documentation for 15+ monthly lots, sustaining zero release deviations during internal and external audits.

PROJECT EXPERIENCE

Antimicrobial Activity & Stress Response in Bacterial Isolates

Research Project

Biotechnology Program, Centennial College

- Processed environmental water samples via membrane filtration, isolating coliform colonies with 92% recovery efficiency on selective MacConkey agar.
- Performed Kirby–Bauer disk diffusion assays, measuring inhibition zones with precision, generating resistance profiles across 50+ bacterial isolates.
- Determined MIC and MBC values for natural antimicrobials, quantifying bactericidal thresholds with reproducibility exceeding 95% across replicates.
- Implemented ELISA methodology for protein quantification, generating consistent absorbance readings with a variance below 5% across replicates.
- Documented experimental workflows and validated data integrity, maintaining traceable records that improved reproducibility by 30%.

EDUCATION

Postgraduate Certificate – Biotechnology

Centennial College, Toronto, ON, Canada

January 2025 – August 2025

Advanced Water Systems Operations & Management

Fleming College, Lindsay, ON, Canada

September 2023 – December 2024

MBA – General Management

Coventry University, United Kingdom

February 2020 – November 2021

Bachelor of Education

VNSGU University, India

June 2016 – April 2018

Bachelor of Science – Organic Chemistry

VNSGU University, India

June 2013 – April 2016

CERTIFICATIONS

- WHMIS 2025 – Centennial College, Standard First Aid & CPR-C
- Operator-in-Training (Water & Wastewater), Entry-Level Drinking Water Operator