

Laboratory Quality Assurance and Quality Control Certificate

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The Laboratory Quality Assurance and Quality Control (QA/QC) Certification at Utah Tech University helps students and professionals build the skills needed to meet the documentation, regulatory, and quality standards expected in modern laboratories. Centered in the Department of Chemistry's Analytical Facility, the program combines classroom instruction with hands-on practice in safety, compliance systems, and commonly used analytical tools. Students gain exposure to the daily workflows of regulated laboratories across life sciences, manufacturing, and environmental testing, preparing them to enter the workforce with practical, job-ready skills.

Physical Science GE with lab and MATH 1010 (or higher) are required prerequisites for the QA/QC Certificate.

9 credits

Code	Title	Hours
CHEM 2600	Laboratory Safety and Compliance prerequisites: CHEM 1220 and CHEM 1225 OR Instructor Permission	1
CHEM 2800	Quality Assurance and Data Integrity prerequisites: CHEM 2600	2
CHEM 2805	Quality Assurance and Data Integrity Lab	2
CHEM 2900 or CHEM 4900	Quality Assurance and Quality Control Capstone prerequisites: CHEM 2800 and CHEM 2805 Laboratory Capstone	1
CHEM 2905 or CHEM 4905	Quality Assurance and Quality Control Practicum Laboratory Practicum	3

Completion Requirements

1. Complete 9 hours of specified coursework.
2. Complete all coursework with a C or higher

Quality Assurance and Quality Control Certificate Program Learning Outcomes

At the successful conclusion of this program, students will be able to:

1. Identify and apply key regulatory frameworks (GLP, GMP, ISO 17025, EPA) in laboratory operations and documentation.
2. Demonstrate basic method validation, maintain calibration and audit records, and prepare audit-ready QA/QC documentation.
3. Apply good documentation practices (GDP) and data integrity principles (ALCOA+).
4. Produce an applied QA/QC project in a selected track (pharmaceutical, environmental, or industrial) that reflects professional laboratory expectations.