



WPI

**BIOMANUFACTURING EDUCATION
& TRAINING CENTER**
ENHANCE YOUR SKILLS & ADVANCE YOUR CAREER

Bioprocess Monitoring & Error Prevention

1 Day Program

Program Summary

This program is designed to introduce participants to the root cause analysis process and how to apply it to simulated process excursions. This program is intended for anyone involved in the root cause analysis of process excursions and deviations.



- **Lecture (2 hours)** - Participants receive an overview of the biomanufacturing process, common failure points, and an overview of the root cause analysis process to complete the challenges, no matter what their current skill level.
- **Hands-on (6 hours)** – Participants work in cross-functional teams to solve multiple troubleshooting scenarios by applying Root Cause Analysis and troubleshooting techniques.

Example Scenarios

- Low product recovery after an Ion Exchange chromatography step.
- Low product recovery following a HIC column chromatography step
- High osmolality in growth medium
- Failure to maintain Dissolved oxygen level in Bioreactor
- Inability to maintain pH control in Bioreactor
- Inability to pass a pressure hold test on a bioreactor
- Low yield following a UF/DF step
- Others as developed in collaboration with customer's input

Additional Activities

Group discussion and presentations: A member of each group discusses the problem, their approach, their conclusion, the immediate corrective action and ideas for a long-term corrective action(s).

Student Testimonials

"I would highly recommend this course to any professional looking to further and widen their knowledge of the industry. The staff and speakers are very knowledgeable and excited to share their experiences!"

"Very state-of-the-art. Cutting edge of the industry."

"You can really tell that the instructors are knowledgeable and passionate about what they do. This passion is very important and aids the knowledge transfer."

Learn More: WPI.edu/+BETC

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