

## NAPTA Learning Outcomes

After taking this course the student should be able to:

### **Process Troubleshooting**

1. Identify a controller's mode: cascade, auto, manual, or by-passed.
2. Identify the steps to troubleshoot.
3. List the troubleshooting tools a board operator can use.
4. Demonstrate troubleshooting on various scenarios where process equipment fails occur. Such as pump fails, valve failures, temperature issues, cooling tower issues, fin fan issues, distillation scenarios, furnace scenarios, and troubleshooting scenarios that occur during start-up or shutdown.