

# *Are You Ready to Troubleshoot?*

**TSC Webinar  
November 29, 2018**

# Qualifying Round

- Coaches review all information located on TSC web page
- Coaches select the Qualifying Round date for teams
- Coaches reserve the team's Qualifying Round location (on campus, industry partner site, etc.)
- Coaches ensure Proctor & Team(s) has, and completes, all needed information
  - \* LMS Quick Start Guide – team & proctor
  - \* Sign-in sheet for teams
  - \* Proctor sign and return form

# Team Structure

- Teams comprised of four students
- Teams consist of 3 members and 1 captain
- All team members must compete in the Qualifying Round
- Alternates may be substituted if needed with coordination from the TSC Coordinator

# Alternates

- Alternates do not need to be assigned to a specific team
- Alternate names will be placed into a pool
- Number of alternates cannot exceed number of registered teams – Example: 3 teams = 3 total alternates
- Use of the alternate will be reported to the TSC Coordinator
- Alternates will not attend the Finals event unless serving as one of the four team members

# Competencies for Success

- Process Equipment Knowledge
- Process Control Knowledge
- Team Work and Communication
- Use of a Troubleshooting Methodology
- Simulator Experience
- Use of Operating Procedures
- Time Management Skills

# Coach a Troubleshooting Team

## ➤ Knowledge

- ✓ Process science (pressure, temperature relationships, heat exchange, mass balance, etc. )
- ✓ Process equipment and control systems
- ✓ Read P&IDs

## ➤ Team Selection

- ✓ Begin your team formations now – Don't wait until January!
- ✓ Student commitment
- ✓ Team work
- ✓ Communications skills
- ✓ Dedicated, hard working
- ✓ Hold intramural competition to choose best team(s)

## ➤ Practice, Practice, Practice

- ✓ Paper
- ✓ Simulator

# Resources Required

- Student commitment to traveling and competing at the Finals Competition
- Time outside of class to study, prepare and practice
- Opportunity to run “mock” competition
- Access to a process simulator to practice computer simulations
- Learning a troubleshooting method/completing troubleshooting class.

# Insider Tips

- Team communication and dynamics
- Know how to use the simulator
  - ✓ Operate from the graphics
  - ✓ Faceplates
  - ✓ Trends
  - ✓ Alarms & alarm acknowledgement
- Not all scenarios start at 1:00 minute
- We introduce variability to avoid the “steady state” of normal design
- Not just one thing can go wrong, but not everything has the same priority
- Know how to use procedures



# Finals Event Schedule & Format

- Twenty teams selected as Semi-Final competitors
- Event runs 2.5 days
- Team registration opens Thursday afternoon, April 25
- Semi-Final Rounds conducted Friday, April 26
- Activities for ten teams not engaged in competition
- Judges select ten Finalist teams
- Final Rounds conducted Saturday, April 27
- Judges select 1<sup>st</sup> through 3<sup>rd</sup> place top finishers
- Banquet Saturday evening, April 27, to award prizes and team certificates

# Scholarship Awards

- \$500 Scholarships
- Awarded to the 20 Semi-Finalist teams as a travel stipend

# TSC Web Page Documentation

- General Information
- Coaches Information & Guidelines
- Qualifying Round Proctor Requirements & Responsibilities
- Team Information & Guidelines
- Team Qualifying Round Quick Start Guide
- Proctor Information & Guidelines
- Proctor LMS Quick Start Guide for Qualifying Round

<https://www.naptaonline.org/events/tsc>

# For Information & Questions

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***2018 NAPTA Troubleshooting Skills Competition  
Finalist Teams & Support Staff***