

**NAPTA Instructor Skills Conference XII**  
**Wed-Fri, October 12-14, 2022**  
**Astor Crowne Plaza Hotel and Conference Center**  
**New Orleans, LA**

## **ISC XII Session Descriptions**

### **Are You Ready to Troubleshoot?**

**Martha McKinley, NAPTA TSC Coordinator**

Ready your students to be effective competitors in a competition based on simulated process upsets and incidents. Understand the competition format and what it takes to prepare your students to be ready to compete side by side with other competing teams. Hear from participating coaches what the benefits are to your students as he/she enters the work world of tomorrow.

**Outcomes:**

- Preparation of teams for competition
- understanding the different facets of the judging criteria
- and creating effective teams for the competition

### **Best Practices for Online PTEC Instruction**

**Jeff Laube, Kenai College**

In this workshop we will discuss the best practices of online PTEC instruction. We we cover how to improve verbiage, homework, testing, and the presentation of the online course. Examples of courses will be shown.

**Outcomes:** Have ideas on improvements you can make on online course deliver

### **Developing Effective Technical Procedures**

**Earl Brown, Jr, Industrial Psychologists Inc**

This session will cover why do we need to have procedures. Each of the following will be discussed:

- ✓ Regulatory requirements
- ✓ Good business practices
- ✓ Consistent job performance

The workshop will also explain how we identify which procedures are needed. Techniques for gathering information for procedures will be discussed. Several sample procedure formats will be presented along with the pros and cons of each. Ten rules for step development along with words to avoid will be discussed.

Definitions for each of the following procedure elements will be provided:

1. Procedure steps
2. Notes
3. Warnings
4. Cautions

A typical procedure review and approval process will be explained.

**Outcomes:** At the end of this presentation, you will:

- Understand why we need procedures
- Be able to explain how to identify the procedures needed
- Be able to select the appropriate procedure format for you organization
- Be able to describe the elements of a procedure
- Be able to explain a typical procedure review cycle

### **Developing Hands-on Lab Assessments**

**Dorothy Ortego, LyondellBasell**

How do you determine if the person you are training really understands and can perform hands-on activities correctly? What methods can be used to evaluate hands-on activities? How do you as an evaluator remain consistent. This workshop walks you through the steps necessary to help you create a great assessment tool.

**Outcomes:** Practical methods to develop assessment hands-on activities and evaluate

### **Digital Tools for Learning**

**Jenn Dupre, Mississippi State University**

Technology has morphed the learning environment in new and surprising ways that can enhance or hinder the learning process. In this session, we will investigate some of the current digital tools (both paid and free!) available and the benefits and drawbacks they may have on meeting educational goals and objectives.

**Outcomes:** Familiarity and Comfortable with new Digital Tools

### **Effective Assessment: How do we know what they know?**

**Jenn Dupre, Mississippi State University**

How do you know that students have mastery of content? Quality, effective testing can provide instant feedback on student learning. These objective, learner-centered assessments can identify the learners' ability to apply gained skills to real-world scenarios as opposed to their ability to "take a test."

**Outcomes:** Create a mock assessment

### **Engaging Your Students (so they stay awake and LEARN!)**

**Elisa Martin, College of the Mainland**

Participants will gain basic knowledge of uncertainty and risk assessment, how they can benefit operators in the field, and how they can be incorporated in the PTEC curriculum. Topics include: value of information, risk attitude, expected value, and decision making process.

**Outcomes:** To give Instructors more tools to keep their students engaged while learning.

## **Enhancing Presentations Using Learner Preferences**

**Charles Baukal, Koch Engineered Solutions Institute**

Guidelines will be provided for instructors to increase the effectiveness of their presentations based on learner preferences. It will show how to determine learner preferences and what types of multimedia to use for each type of learner preference. Students learn better when their learning preferences are utilized.

**Outcomes:** At the end of this session, participants should be able to discuss learner preferences and to select appropriate multimedia for a given learning context.

## **Essential Skills**

How to tell your DEI story in an interview

**Crystal Lovelady-Jackson, Shell**

**Stacy Putman, INEOS**

This workshop will prepare instructors to support, teach and lead their students to be able to share their DEI (Diversity, Equity, Inclusion) story and share their authentic experience in interviews to highlight and improve essential skills such as teamwork, empathy, collaboration, and accountability.

During interviews applicants are assessed on their behavioral, technical, and essential skills. While technical and behavioral skills can be taught in the classroom, the importance of essential skills such as communication, problem-solving, collaboration/teamwork, situational awareness, listening skills and accountability are often overlooked. These are important skills to be able to demonstrate in interviews.

**Outcomes:** Participants will be able to lead their students in identifying and sharing their DEI story in interviews and interactions with recruiters and potential employers.

## **Exploring the Capabilities of Simulation**

**Tommy Utmel, WSC**

Hands-on and web-based simulation provides opportunity for multiple areas within the industry to provide training, educational value, and simulation assisted engineering. Explore the capabilities that best suit your organizational needs in the world of simulation.

**Outcomes:** Communicate the short and long-term value of investing in your training program with simulation.

## **Getting the Most from Your Simulation Software “Tips from the Experts!”**

**Martha McKinley, NAPTA TSC Coordinator**

Join this discussion group to hear ideas and best practices, from industry and design experts, for using the simulators to enhance your student’s ability to recognize and address process problems. Hear experts discuss their ideas for teaching using a simulator. Take this opportunity to ask questions of the panel to gain understanding and help with applicability in your program.

**Outcomes:**

- Gain ideas for simulator exercises
- Better understanding of how to use the simulator in the classroom

## **Goals, Objectives, and Outcomes. Oh My!**

**Lara Threet, Mississippi State University**

Effective goals, objectives, and outcomes are not only used to give students an idea of the expectations of the course but are also used as measuring tools for instructors and curriculum designers. This presentation is for anyone who develops curricula, teaches, or wants to create effective, engaging instruction.

**Outcomes:** Develop effective outcomes, goals, and objectives for the classroom. Discuss why we should create effective goals, objectives, and outcomes. Outline how to use effective goals, objectives, and outcomes to our advantage. Describe components of meaningful goals, objectives, and outcomes.

## **How Operators Make Good Decisions**

Risk Assessment for Process Operators

**Vahid Atashbari, Southern University in Shreveport**

Participants will gain basic knowledge of uncertainty and risk assessment and how they can benefit operators in the field. Topics include: value of information, risk attitude, expected value, and decision making process. These skills are required in any occupation, especially in the field where an operator faces uncertain condition and must make right decision.

**Outcomes:** Upon completion of this session, participants will be able to incorporate the concepts of uncertainty and risk assessment in class activities and PTEC curriculum.

## **Intro to Learning Management Systems (LMS) Reserve Session**

**Jenn Dupre, Mississippi State University**

Do you use an LMS like Canvas or Blackboard? Although these feature-rich tools can seem overwhelming, they can serve as a useful tool to trainers and instructors with just a little know-how. Learn how to use your LMS system to make your job easier (and grade / data reporting automated!)

**Outcomes:** Familiarity and Comfortable with LMS basics

## **Kirkpatrick's Levels of Evaluation**

**Earl Brown, Industrial Psychologists Inc.**

This workshop will discuss the five levels of evaluation:

Level 1 – Measures trainee's satisfaction with the training

Level 2 – Knowledge retention is assessed

Level 3 – Evaluates how the trainees can apply the training concepts

Level 4 – Measures if the training results in impacting the business

Level 5 - Attempts to quantify the level of monetary benefits to the organization

**Outcomes:** Participants will acquire a better understanding on training evaluation.

## **Learning Environment – Preparation & Delivery**

**Mike Kukuk, Troubleshooting Resources**

Creating and maintaining a positive and effective learning environment for our classes is a common target for instructors. Workshop participants will explore the following areas associated with the learning environment: describe an effective learning environment,

factors that affect it, how to create it, and how to maintain it through the delivery of classes. Discussion will include: instructor performance, learner behaviors, facilities, materials, activities and interaction, and tips for positive outcomes.

**Outcomes:** Participants will make the connection between the factors that affect the learning environment and how an effective learning environment can be created and maintained.

### **Making Learning Fun with Group Interaction**

**Dennis Link, College of the Mainland**

This workshop will be centered on the theme that engaging participants in fun, interactive activities is directly related to the amount of learning taking place. We will involve the participants in group activities related to safety, crude oil refining and gasoline profit margins.

Outcomes:

At the end of workshop, participants will be able to:

- Share safety tips to help eliminate injuries
- Facilitate interactive learning activities with small groups
- List the key differences in a barrel of crude oil and a barrel of refined oil
- Calculate profit margin of gasoline based on current cost per gallon

### **Recruiting Students into the PTEC Program**

**Michael Kean, Los Medanos College**

Has enrollment dropped in your program? If so, you probably are not alone – community college enrollments are down nationwide, including PTEC enrollments. Let's discuss the effectiveness of different marketing and outreach strategies such as direct mailers, phone calls, social media, industrial relations, community groups, and high school outreach.

**Outcomes:** Actionable recruiting efforts, and examples of marketing materials

### **Refresher Training Benefits and Applications for Industry and Education**

**Earl Brown, Industrial Psychologists Inc.**

Is "Once Trained - Always Trained" the way to go or is Refresher Training Needed? This workshop will address why we need refresher training. Also addressed will be when we would need refresher training. Signs refresher training is needed will be discussed. Methods for identifying refresher needs will be explained. One method of providing the OSHA PSM required refresher training will be presented and discussed.

**Outcomes:** Participants will acquire a better understanding of refresher training requirements and process

### **Teaching PTEC Core Courses - Best Practices**

This eight-part workshop track is designed for college Process Technology Instructors and Department Chairs. The participants will interact with their table groups to identify, discuss and prioritize best practice learning techniques associated with the core Process Technology course highlighted during each workshop. Participants will receive certificates of completion indicating each of the eight workshops attended

**Outcomes:**

At the end of each of the eight workshops, participants will be able to:

- Identify best practice learning techniques to enhance their Process Technology core courses
- Share best practice learning techniques they currently use in teaching their Process Technology Core Courses
- Implement best practice learning techniques into their Process Technology core courses to improve their programs

**Teaching PTEC Workshops:**

<b>Introduction to Process Technology</b>	<b>Process Systems</b>
<b>Process Equipment</b>	<b>Process Quality</b>
<b>Safety Health and Environment</b>	<b>Process Operations</b>
<b>Process Instrumentation</b>	<b>Process Troubleshooting</b>

**Teaching Process Safety**  
**David Hirsch, Systran Inc.**

Can we improve how we teach Process Safety to new operators? What can we do to improve ownership and retention of Process Safety concepts? This session explores ways to apply sound learning principles while respecting the limits of training time and still create a meaningful learning experience.

**Outcomes:** Describe the benefits of various methods of teaching process safety; Explain how to improve ownership and retention of process safety concepts; List three ideas you can use to improve your process safety training.

**Teaching Troubleshooting – An Effective Recipe**  
**Mike Kukuk, Troubleshooting Resources**

This workshop will address critical components for teaching process problem solving, using broadly accepted training practices, in an interactive environment. Content includes prerequisites, desired outcomes, troubleshooting method and tools, and a participant demonstration of the application of the troubleshooting process.

**Outcomes:** Participants will be able to apply a structured troubleshooting approach to solve a simple process problem and recognize the value in a structured process coupled with standard training practices.

**Train-the-Trainer: Basic Skills**  
**David Hirsch, Systran Inc.**

Are you new to the trainer role or looking to improve your skills? You will learn about what makes a good trainer, how adults learn, effective communication skills, how to effectively deliver classroom, small-group, and hands-on training. This session is taught in an interactive style with practical exercises.

**Outcomes:** Describe the attributes of an effective trainer; Describe how adults learn and communicate; Explain the differences between delivering classroom, small-group and hands-on training.

## **Using Engineering Systems Design Principles for Curriculum Development**

**Lara Threet, Mississippi State University**

Curriculum development is like other tasks in research, design, and development. Applying similar principles to curriculum design is a way to take current knowledge to different fields. Effective curricula is imperative to pass knowledge to the next generation. This presentation is for anyone who develops or wants to develop curricula.

**Outcomes:** Define systems engineering design philosophy and methodology. Define curriculum development. Apply engineering design philosophy and methodology to curriculum development

## **Who's the Alien in My Classroom? Gen Z in PTEC**

**Dr. Madonna Adams, Brazosport College**

Generation Z students are not the typical learners of the past. With different viewpoints and experiences based on world events occurring during their lifetime, learning happens differently for them. Let's review what we know about Generation Z, based on college research, and how to effectively reach them in the classroom.

**Outcomes:** Upon completion of the workshop, participants will have understand: Observations on issues and motivations for Gen Z students, Learning styles and environments that these students thrive in, Issues facing instructors and how to establish best practices in the classroom

**Keep checking back, there's more to come!!!**