



# **Precision Tools for Error Reduction**

Strategies and Implementation Techniques

DIRECTED BY

**Ginette Collazo,** Ph. D.



- ACCREDITED COURSE
- Human Error Phenomena and Measurement
- Importance of Human Error Prevention/Reduction
- Quantitative & Qualitative Information Gathering
- Tools for Human Error Reduction Programs
- Human Error as the Root Cause
- Trending and Tracking
- Metrics and Human Error

## about the course

Human error is known to be the primary cause of quality and production losses in many industries. Although human error is unlikely to ever be eliminated, many human performance problems can be prevented. Human errors start at the design stage. From procedures, training, and workplace environment, many variables that affect human behavior CAN be managed, reducing the likelihood of these occurrences. When working with these challenges, it is imperative to understand human behavior and the psychology of error and understand exactly where the system's weaknesses are so that they can be improved and fixed. This course offers practical approaches and tools to address human performance issues in GMP-related environments by using a particular methodology to correct, prevent, and avoid reoccurrence of these matters.

In this 90-minute accredited course, participants will focus on the background and importance of the Human Error Phenomena, its measurement, and its prevention. More specifically, this session will focus in on the tools utilized for prediction, Root Cause Analysis (RCA), Cognitive Load Assessment, and more. Participants will examine trends and methods of tracking Human Error as well as identify the vital metrics used for reduction.

Participants attending the live training can ask questions and interact with the instructor. Thus, it is recommended to have a webcam on their computer as well as a microphone and speakers/headset to fully participate.



## who should attend

This online training has been designed for professionals working in GMP regulated manufacturing facilities including Pharmaceuticals, Medical Devices, Biologics, Food and Nutrition. In addition, this training will be worthwhile for any other organization that has employees executing activities in which they can make mistakes (ALL).

Personnel holding positions in the following areas will benefit greatly from this training:

- Training managers and Coordinators
- Manufacturing
- QA/QC Staff
- Industrial/process engineers
- Regulatory/legislative affairs professionals
- Executive management

- Operations
- Plant Engineering
- Process excellence/improvement professionals
- Compliance officers
- General/corporate counsel

# learning objectives

#### Upon completion of this course, you will be able to:

- Identify human error: factors and causes.
- Examine the importance: regulatory and business.
- Define the process to manage Human Error deviations.
- Explain human error measurement.
- Identify tools for measurement.
- Establish Key Performance Indicators (KPI).
- Define and measure human error rate, cognitive load, and corrective and preventive actions (CAPA) effectiveness.
- Identify what one can do to support human reliability.

# course outline

#### **Review of Learning Objectives**

- Background on Human Error Phenomena and Measurement.
- The importance of Human Error Prevention/reduction.
- Quantitative and qualitative information gathering.
- Why do we need tools for human error reduction programs?
- Training as a tool and human error.
- Facts about human error and training.
- Human Error as the Root Cause: what to do and how to measure it.
- Tools
  - o Prediction
  - Root Cause Analysis
  - Cognitive load assessment
  - o Systems available
  - Human error rate
  - Floor checklist
  - Interview questions
- Human error rates and other metrics
- Trending and Tracking
- Metrics and Human Error
  - o KPI's
  - o Human Error rate
  - o 1st-time pass rate



- Overall equipment effectiveness (OEE)
- Trending /Tracking

#### **Question and Answer Session**

#### **Assessment Opportunity**

### course instructor

**Ginette Collazo, Ph. D.** is an Industrial-Organizational Psychologist with over 20 years of experience specializing in Engineering Psychology and Human Reliability. She has held positions leading Training and Human Reliability programs in the Pharmaceutical and Medical Device Manufacturing Industry.

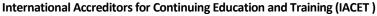
In 2009, Dr. Collazo established Human Error Solutions (HES), a training and consulting firm, and she has positioned herself as one of the few Human Error Reduction Experts worldwide. HES, led by Dr. Collazo, developed a unique methodology for human error investigations, cause determination, CA-PA development, and effectiveness implemented and proven amongst different industries globally. Furthermore, this scientific method has been applied in critical quality situations and workplace accidents. As a GMP expert, she has also been a Keynote Speaker at significant events worldwide.

Ginette Collazo, Ph. D., is the author of several books, "Human Error: Root Cause Determination Model" and "Mission Matters: World Leading Entrepreneurs Reveal their Top Tips to Success."

In 2023, Human Error Solutions was named as a top ten industrial service provider by Manufacturing Outlook magazine and featured in ABC, Fox, NBC, and CBS news.

She hosts The Power of Why Podcast—a show about human behavior in the workplace and critical thinking.

#### **Accreditations**





Cobblestone has been approved as a CEU Accreditor by IACET and awards CEUs for participation in qualified courses. Cobblestone has demonstrated that it complies with the ANSI/IACET Standards and is authorized to offer IACET CEUs for its programs. CEUs will be awarded for participation in Cobblestone's courses at the rate of .1 CEU per contact hour upon successful completion of the entire course and 70% accuracy in the required Learners' Assessment. A minimum score of 80% is required for all courses within a Cobblestone Certification Program. This course offers a total of 1.5 contact hours or .2 CEUs. For further information, visit www.iacet.org

#### The American Society for Quality (ASQ)

#### The American Society for Quality (ASQ)-Recertification Opportunities

Cobblestone is committed to enhancing the ongoing professional development of Quality professionals and other stakeholders through appropriate learning activities and programs. Many Cobblestone courses offer training that may help obtain required ASQ's recertification education units.

For more information, visit: www.asq.org

