

eLearning Course Outline

Errors in Your Data

The eLearning *Errors in Your Data Course* uses online based diagnostic approach focused on helping operators of material testing system understand any data integrity issues they may come across during their testing. The course is broken down into 27 short videos, with each video covering a common source of error frequently seen in material testing. There is a mix between informational talking points as well as live demonstrations across all the videos to better help communicate important information. Topics include issues caused by physical measurements and fixtures as well as test method setup and environmental considerations. All the information in this course has been accumulated from our world class service and application teams and presented to you, the viewer, to help keep your testing lab running smoothly. The course includes self-check quizzes and a certificate of completion will be awarded after successful completion of the course.

Objectives

After completing this course, the participant will become familiar with commons errors seen in materials testing. Also, they will become familiar with the potential causes for such errors and how to approach resolving them in a timely manner.

Course Outline

Chapter 1: Physical Measurements and Fixturing (*Time: 28 minutes 41 seconds*)

- Errors caused by load cell measurements
- Errors caused by strain accessory measurements
- Common operator missteps
- Errors caused by alignment of both specimen, frame, and fixtures
- Errors caused by incorrect grip applications
- Safety: Unexpected frame movement

Chapter 2: Test Method and Environmental Considerations (*Time: 24 minutes 47 seconds*)

- Errors caused by incorrect method development in testing software
- Basic understandings of interpreting testing standards correctly
- Prevention of errors before they happen
- Errors caused by temperature/humidity
- Important of preventative maintenance on the system
- Errors caused by poor machine testing control (extension/load/stress/strain control)
- Errors caused by agents external to the testing system (vibration)

Who Should Attend

- Anyone looking to improve the quality and consistency of their testing results

Prerequisites

A general understand of material testing principles and equipment. Completion of our Intro to Statics class (live or eLearning).