# **Course Syllabus**

# **Green Sand Testing**



Course Code	CEUs
2-215	0.6 CEUs

### **Course Introduction**

This course provides detailed instruction on the need for and how to correctly perform widely used green sand tests, including proper sand sampling methods, from the AFS *Mold & Core Test Handbook*.

**Benefits to Taking the Course:** In addition to hands-on practice conducting sand tests, participants will be able to identify typical operating ranges for test values and communicate results.

### **Learning Outcomes**

- 1. Describe green sand tests and sampling procedures
- 2. Identify green sand test frequency and purpose
- 3. Determine proper test equipment
- 4. Adhere to safety requirements
- 5. Run green sand tests independently
- 6. Determine and discuss acceptable green sand testing ranges

#### **Lesson Outline**

Module 1: Welcome & Introductions

Module 2: Green Sand Testing Overview

Lesson 1: What is green sand testing

Lesson 2: Green sand test descriptions - Frequency and purpose

Lesson 3: Sampling procedures and Test Parameters

Module 3: Perform Green Sand Tests

Lesson 1: Determine proper testing equipment

Lesson 2: Describe safety steps for green sand testing procedures

Lesson 3: Green sand testing procedures

Module 4: Green Sand Testing Ranges

Lesson 1: Green sand testing acceptable ranges

Lesson 2: Communicate green sand test results

#### **Instructional Methods:**

- Video
- Group Discussions
- Partner Activities
- Mini Lectures
- Games
- Group Activities
- Labs

### **Assessment Methods:**

No formal assessment will take place in this course; however, attendees will participate in informal activities such as knowledge check and Q&A sessions with the facilitator to verify that learning outcomes are being met. Assessment of successful achievement of learning outcomes must be included throughout the course in order to meet the ANSI/IACET 1-2013 standard for continuing education programs and for CEUs to be awarded.

### **Course Prerequisites**

### Recommended:

• Green Sand Molding 101 (Institute course)

or

• Knowledge of the components of green sand

# Texts, Books or other Resources Included in the Registration Fee:

• AFS Mold & Core Test Handbook, 4<sup>th</sup> Ed.

## **Attendee Requirements to Earn CEUs:**

- 1. Present at least 5.5 hours of the total 6 hours of instructional time (90%), which does not include meals or breaks.
- 2. Active participation (can include asking questions, communicating with other attendees during and taking part in group activities, providing responses during whole class or group discussions).
- 3. Successful achievement of learning outcomes.

## Who Should Attend?

The target audience consists of people in the following positions:

- Sand lab technician
- Sand lab manager
- Quality engineer