Foundry e-Learning from the AFS Institute

Designed by foundry curriculum experts, each skills-based AFS Institute e-Learning Module takes from 20 to 60 minutes to complete. Each module costs $50 for members or $100 for non-members. For a free demo, contact Jen Christian at jchristian@afsinc.org.

To register for modules, visit www.afsinc.org/e-learning or fill out the form below checking off the modules you wish to purchase.

- 3D Sand Printing Benefits
- 3D Sand Printing Casting Design
- 3D Sand Printing Mold Quality
- 3D Sand Printing Process and Terminology
- Acid Demand Value (ADV) of Sand
- AFS 2 in. Dia. x 2 in. Specimen Preparation, Rammer Method
- AFS Clay
- AFS Permeability for Green Sand
- Aluminum Casting Alloys
- Aluminum Casting Applications
- Aluminum Casting Defects: Gas Porosity and Shrinkage Porosity
- Aluminum Casting Defects: Oxides and Inclusions
- Aluminum Casting Production
- Basic Melt Practices for Cast Iron
- Basics of Fluid Dynamics for Metalcasting Gating Systems
- Basics of Heat Transfer Principles for Riser Design
- Big Picture of the Casting Process
- Casting Defect Analysis Practice and Conclusion
- Casting Design for Castability
- Casting Material Properties
- Cast Iron Defects: Solidification Shrinkage in Ductile Cast Iron
- Cast Iron Defects: Solidification Shrinkage in Gray Cast Iron
- Chemical Binder Handling Safety Requirements
- Coldbox Coremaking Components
- Coldbox Coremaking Process
- Coldbox Core Quality and Casting Defects
- Coldbox Tooling Design Basics
- Compatability
- Compactación de Arena Verde
- Copper Casting Alloys
- Copper Casting Applications
- Copper Casting Defects: Gating
- Copper Casting Defects: Shrinkage
- Copper Casting Production
- Elements in Cast Iron
- Fiability
- Functions and Features of a Rigging System
- Gas Related Defects
- Gating Design for 3D Printed Sand
- Green Sand Compaction
- Green Sand Molding Equipment
- Green Sand Molding Process
- Green Sand Preparation and Quality Control
- Green Sand Raw Materials
- Introduction to Casting Defect Analysis
- Introduction to Cast Iron
- Introduction to Cast Iron Heat Treatments
- Introduction to Cast Iron Melting
- Introduction to Cast Iron Microstructures
- Introduction to Green Sand Defects
- Introduction to Lean Manufacturing
- Introduction to Steel Heat Treatments
- Lean Manufacturing Application
- Lean Manufacturing Case Studies
- Lean Manufacturing Principles
- Loss on Ignition (LOI)
- Lost Foam Basics
- Mechanics for Heat Treatment: Aluminum Castings
- Mechanics for Heat Treatment: Aluminum Processes
- Melting and Pouring
- Metalcasting Facility Safety
- Methylene Blue Clay Test
- Moisture Determination for Sand Testing
- Nobake Materials and Equipment
- Nobake Mold and Core Defects
- Nobake Molds and Core Process
- Oxide Related Defects
- Permanent Mold Casting Process
- pH of Sand
- Purchasing Castings: Create the Relationship
- Purchasing Castings: Grow the Relationship
- Purchasing Castings: Maintain the Relationship
- Risering Iron Castings
- Sand Related Defects
- Sand Sampling Methods
- Shrink Related Defects
- Sieve Analysis and Grain Finessness Number (AFS GFN)
- Six Families of Cast Iron
- Steel Casting Alloys
- Steel Casting Defects: Oxides and Inclusions
- Steel Casting Defects: Shrinkage
- Steel Casting Production
- Steel Casting Quality Requirements and Inspection Methods
- Tensile Strength for Chemically Bonded Sand
- Types of Alloys
- Types of Casting Processes
- Types of Casting Tooling
- Wet and Dry Compression Strength for Green Sand
- Wet Tensile Strength for Green Sand

**Spanish Modules**

- Defectos en el Hierro Fundido: Contraction por Solidificacion en Hierro Gris
- Defectos Relacionados con el Gas
- Defectos Relacionados con el Óxido
- Defectos Relacionados con la Contracción
- Elementos en el Hierro Fundido
- Equipo de Moldeo de Arena Verde
- Introducción a la Fusión de Hierro Fundido
- Introducción a la Microestructura del Hierro Fundido
- Introducción al Análisis de Defectos de Fundición
- Introducción al Hierro Fundido
- Introducción a los Defectos de la Arena Verde
- Introducción a los Tratamientos Termicos de Fundición de Hierro
- Las Seis Familias de Hierro Fundido
- Materiales Primas de Arena Verde
- Panorama General del Proceso de Fundición
- Práctica para el Análisis de Defectos en Piezas y Conclusion
- Prácticas Básicas de Fusión para Hierro
- Preparación de Arena Verde y Control de Calidad
- Proceso de Moldeo de Arena Verde

**Company Information:**

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- VISA
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**Mail:**

American Foundry Society

35169 Eagle Way Chicago, IL 60678-1351

**e-Mail:**

customerservice@afsinc.org

**Fax:**

847-824-7848

**Return completed application via:**
**AFS e-Learning Subscription Program**

“The modules are a great way to supplement and fill in the gaps of in-house training practices. All of our new supervisors are given e-Learning assignments to complete during their training.”

-Rocco Bara, Plant Manager, Victaulic

The AFS Institute offers more than 100 on demand e-Learning modules ranging in length from 20 to 60 minutes, viewable on any device or browser. e-Learning modules focus on practical job skills you can use immediately. Each module is based on adult education best practices and strives to engage you throughout. With the AFS e-Learning Subscription Program gain access to our full suite of e-Learning modules for all your employees at one location. The annual subscription fee is based on the number of employees in your facility:

- $1,200 up to 100 employees
- $2,400 up to 250 employees
- $4,800 over 250 employees

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### e-Learning Categories Include:

- 3D Sand Printing
- Aluminum
- Basics of Metalcasting *
- Casting Defect Analysis
- Cast Iron
- Coldbox
- Copper
- Gating and Riser Design
- Green Sand Molding *
- Lean Manufacturing
- Lost Foam
- Mechanics for Heat Treatment
- Metalcasting Safety
- Permanent Mold
- Nobake Molding & Coremaking
- Sand Testing
- Steel

* Available in Spanish

### e-Learning Subscription Application

#### Program Fees

- $1,200 Corporate Members with up to 100 employees (per plant)
- $2,400 Corporate Members with up to 250 employees (per plant)
- $4,800 Corporate Members with more than 250 employees (per plant)

#### Program Requirements

- Corporate membership must be kept current during 12 month subscription period.
- Training administrator must be designated.
- No refunds or proration of funds once access is established for training administrator.
- A separate subscription and application form is required for each plant.

Optional and tax deductible: Donate to the AFS Institute and its mission to educate the metalcasting industry. □ $20 □ $40 □ Other Amount $ ________________

For e-Learning Module Individual Access please visit www.afsinc.org/e-learning or fill out the form on the other side of this ad.

#### Company Information:

- Company
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- Number of Employees

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- Check enclosed

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#### Return completed application via:

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